

**A Mountain of Politics:
The Struggle for *dzil nchaa si'an* (Mount Graham), 1871-2002**

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The past remains integral to us all, individually and collectively. We must concede the ancients their place ... but their past is not simply back there, in a separate and foreign country, it is assimilated in ourselves and resurrected in an ever-changing present.¹

—David Lowenthal

If history is to be creative, to anticipate a possible future without denying the past, it should, I believe, emphasize new possibilities by disclosing those hidden episodes of the past when, even if in brief flashes, people showed their ability to resist, to join together, occasionally to win.²

—Howard Zinn

¹ David Lowenthal, *The Past is a Foreign Country* (New York: Cambridge University Press, 1985), 412.

² Howard Zinn, *A People's History of the United States: 1492 to Present* (New York: Harper Perennial, 2005), 11.

PREFACE

A number of years ago, before I learned about the current, ongoing struggle for Mount Graham, a sacred and ecologically unique mountain in Southeastern Arizona, about which this work is about, in my email inbox I received a popular story that had circulated for years:

When NASA was preparing for the Apollo Project, they did some astronaut training on a Navajo Indian Reservation in Arizona. One day, a Navajo elder and his son were herding goats and came across the space crew. The old man, who spoke only Navajo, asked a question which his son translated.

“What are these guys in the big suits doing?” A member of the crew said they were practicing for their trip to the Moon. The old man got all excited and asked if he could send a message to the Moon with the astronauts. Recognizing a promotional opportunity for the spin-doctors, the NASA folks found a tape recorder. After the old man recorded his message, they asked the son to translate it. He refused. So the NASA reps brought the tape to the reservation where the rest of the tribe listened and laughed but refused to translate the Elder’s message to the Moon.

Finally, the NASA crew called in an official government translator. He reported that the Moon message said, “Watch out for these assholes, they have come to steal your land.”

The authenticity of this popular story is unimportant. What I soon learned was that the punch line of the tale, about the realities of life and the connections of land to Indigenous peoples—in this case above, the Navajo (Diné) who are cousins of the Apaches I write about in this dissertation—is not at all farfetched. In fact, why should Indigenous communities who have been witness to and had first-hand experiences regarding the dispossession of land around the world think that the same story would not occur in outer space? A chapter of this dissertation discusses Vatican astronomers’ efforts to be the first to colonize outer space, an effort not far removed from entrepreneurs who in 2003 announced their desire to colonize “space to secure humanity’s future” and who “believe colonizing other planets is a noble and philanthropic cause.”³ This work attempts to

³ Brad Stone, “Bezos in Space: Amazon.com’s founder and a few other high-tech high rollers are spending millions on a shared dream: to re-ignite the exploration of space,” *Newsweek*, 5 May 2003, 50-52.

challenge colonialism in the present for, as Albert Einstein once wrote, “The significant problems we face cannot be solved by the same level of thinking that created them.”

It’s Always Personal & Political⁴

In the first and arguably the best chapter of his seminal work of U.S. history, Howard Zinn wrote, “The reader may as well know [my approach to history] before going on.”⁵ In other places Zinn stated, “I was very conscious of the role of the historian.” From his early days of teaching at Spelman College, a historically black college in Georgia, he “saw the college campus as a place where there’s a huge amount of intellectual energy and human energy and I didn’t want it to be wasted. So from that point on I began to see the resources of a university . . . as something that should not be wasted in merely academic pursuits.”⁶ Zinn’s politics were upfront; he held a point of view. I am similarly upfront with my politics, both in my teaching and my writing. I understand that some scholars will criticize me and my work because of my point of view and my politics. In the history of the struggle for Mount Graham, especially with regards to recent events, numerous actors on both sides of the issue have described the problem as having more to do with politics than with astronomical or biological science, or religious, environmental, cultural, or human rights concerns. In this work I attempt to highlight and confront those politics and the supporting scientific claims, and support the indigenous and environmental opposition.

My reasons for writing this dissertation are many and all of them are personal. It all began during my first year of graduate school at the University of Minnesota, although I had become keenly aware of U.S. foreign policies while living in Scotland and studying American history at the University of Glasgow. When I arrived in Minneapolis in 1999, I began to think more critically about U.S. history as I listened to certain radio programs, began to read alternative press publications, criticized the media, joined activists in protest, and socialized with local military veterans, radicals, union leaders, artists,

⁴ Elizabeth Cook-Lynn, *Anti-Indianism in Modern America: A Voice from Tatekeya’s Earth* (Urbana: University of Illinois Press), esp. 151-158.

⁵ Zinn, *A People’s History of the United States*, 11.

⁶ Deb Ellis and Denis Mueller, dir., *Howard Zinn: You Can’t Be Neutral on a Moving Train* (First Run Features, 2005).

students, and faculty. That education enabled me to think critically about the world around me, especially regarding U.S. history. In early 2000, I experienced an additional shift in my thinking that would impact my remaining years at Minnesota. During a presentation I gave to the University of Minnesota's Early American History Workshop regarding "Benito Cereno," Herman Melville's short story about a slave revolt on a merchant ship, historian Jean O'Brien queried, "So what? What's the point?" At the time I became angry and vowed never to work with her. I later realized that if I did not try to do something with my work, and if I could not argue for a reason to write anything, there probably were going to be many more times and places where scholars and the general public would ask, "So what?" A few years after this encounter, O'Brien joined my dissertation committee.

In the fall of 2001, when I learned about Mount Graham, its use as a place for astronomical development and research, and the Vatican's involvement in those efforts, I quickly became fascinated with the possible implications of the University of Minnesota's investment in such endeavors. I became so interested, in fact, that I shifted my academic path away from early nineteenth-century African American history. I also fundamentally changed my dissertation topic in order to concentrate on American Indian history, sacred sites, and, of course, Mount Graham. I had to learn an entirely new body of literature and enrolled in courses in American Indian history, all while speaking out against the University of Minnesota's treatment of Indian communities at the time. In the year prior to my academic shift, I felt that the research that I had been pursuing was interesting, but I was becoming less enamored with a topic that, to me, did not seem useful. With this realization and Minnesota's planned participation in astrophysical development in Arizona, I had to write about Mount Graham.

Readers should know that I did not create an argument and then find evidence to support it. I was not even initially sharp enough to recognize the imbalance of power that exists among the Western Apaches in this history and various external-to-their-society groups. So I could not have created the argument. The evidence itself, without my help, points anyone with any level of common sense to the arguments and conclusions

contained herein. I came to this work, initially, with a naiveté and utter disbelief that, in the twenty-first century, colonial struggles were still taking place on U.S. soil. What the struggle for Mount Graham teaches us is that we do not have to go outside the U.S. to find acts of imperialism. There are a multitude of examples within these borders.⁷ What I also failed to recognize at the time, given my years in academia, was that universities are promoters and supporters of oftentimes symbolically violent colonial and imperial endeavors.

I have learned a great amount from the struggles of native and non-native activists who have encountered and worked to change racism at academic institutions. Charlene Teters, a significant voice against the use of Indians as mascots for sports teams, once said regarding the University of Illinois, where she was a graduate student in the late 1980s and began to protest the school's mascot, Chief Illiniwek: "I could not be here [University of Illinois] and not address that issue."⁸ Her comments resonated with me as I began to think about what I could do to help convince my academic institution, the University of Minnesota, to back away from what I thought and still consider a similarly unsound project. I was inspired by Teters's commitment, as well as by the writings of other activists. In the introduction to his Masters thesis regarding Mount Graham, Giovanni Panza, an environmental and cultural rights activist living near Tucson, wrote,

In these pages there is no pretense to objectivity, nor does the author pose as neutral. While conflicts are destructive to all, as is often the case with human tragedy, the friction of opposites generates energy and change. The perpetrator vs. victim polarity is not an outmoded construct. Calling a conflict a "controversy," a "saga," or even worse, an "affair," betrays a reluctance to take responsibility, a denial of the dignity of the victim. I will not sacrifice justice to a show of fairness.⁹

⁷ See Yuichiro Onishi, "Giant Steps of the Black Freedom Struggle: Trans-Pacific Connections Between Black America and Japan in the Twentieth Century" (PhD diss, University of Minnesota, 2004), 263.

⁸ Jay Rosenstein, dir., *In Whose Honor?: American Indian Mascots in Sports* (New Day Films, 1997).

⁹ Giovanni B. A. M. Panza, "The Impaling of Apache Holy Ground" (master's thesis, Prescott College, Arizona, 1997), 3. Regarding Panza's efforts to halt residential development in the shadow of Mount Lemmon, see "Cañada del Oro: Oasis Under Siege," flyer, n.d. (2002). Regarding Teters' activism, see <http://www.charleneteters.com/Welcome.html> and National Coalition on Racism in Sports & Media, <http://www.aimovement.org/ncrsm/>, accessed 28 Mar 2010.

I take some of my cues from activist intellectuals like Teters and Panza, among many others, who see a purpose in and to their work.

Yet there are historians who will criticize this study because they feel it is too “presentist” and because my own personal history and politics are wrapped up with the larger narrative. Historian David Hackett Fischer once wrote in *Historians’ Fallacies*,

The *pragmatic fallacy* selects useful facts—immediately and directly useful facts—in the service of a social cause. Most historians hope their work is, or will be, useful to somebody, somewhere, someday.... But the pragmatic fallacy short-circuits the problem. It consists in the attempt to combine scholarly monographs and social manifestoes in a single operation. The result is double trouble: distorted monographs and dull manifestoes.¹⁰

Historian Gordon Wood, in his book, *The Purpose of the Past*, stated that historians should not use the past to deal with present problems. He derided scholars who find a usable and useful past. Moreover, Wood wrote, “I am reminded of Rebecca West’s wise observation that when politics comes in the door, truth flies out the window.” He sarcastically added, “Historians who want to influence politics with their history writing have missed the point of the craft; they ought to run for office.”¹¹ Many historians will consider this work more about current events than history. Given that there is no set date by which everything before becomes history, and given that I use many of the tools and techniques of a historian—research in archives, interviewing, writing, thinking, and dissemination of knowledge—I feel that the naysayers have little ground on which to stand. Moreover, history does have “usefulness.”

Many historians and academics, even within my own department, have looked down on my work as being too activist. Indeed, they criticize the ways in which I have involved myself at the University of Minnesota in my work. Over the last eight years, I have spoken about Mount Graham at various scholarly and community conferences and workshops, on radio programs, and in classes at the University of Minnesota and elsewhere. I have also written about Mount Graham in community newspapers and in *The*

¹⁰ David Hackett Fischer, *Historians’ Fallacies: Toward a Logic of Historical Thought* (New York: HarperPerennial, 1970), 82.

¹¹ Gordon Wood, *The Purpose of the Past: Reflections on the Uses of History* (New York: The Penguin Press, 2008), 308.

Minnesota Daily and *The Wake*, two student-run newspapers at the University of Minnesota. In August 2002 and July-August 2003, I was fortunate enough to travel to the San Carlos and White Mountain Apache Reservations, and Tucson and Phoenix, to speak with elders, Tribal leaders, biologists, and environmental and cultural rights activists; to visit the University of Arizona and Mount Graham; and to witness a Changing Woman Ceremony for a young Western Apache woman's puberty rite in San Carlos.¹² During my visits to Arizona, I gained a better understanding of the landscape in which I would be working and contacted dozens of Tribal leaders and representatives, environmentalists, and other people with whom I worked on this dissertation. I kept a journal throughout the trips. In order to place my work in a larger context, I was also able to visit Mount Shasta in California and Mount Hood in Oregon—sacred sites that are threatened by “progress” and recreation. In 2003, I participated in the annual Mount Graham Sacred Run.

My trips enabled me to see that, indeed, indigenous sacred lands, sites, and places are under attack throughout the United States. One example is Weatherman Draw, in south-central Montana, that includes the largest collection of rock art in North America. Also known as the “Valley of the Shields” or the “Valley of the Chiefs,” Weatherman Draw was historically a place of peace where many tribes, including the Comanche, Northern Arapaho, Northern Cheyenne, Eastern Shoshone, Crow, and Blackfeet, would gather in the winter. Like many sacred sites, the valley was used for vision quests, burials, prayers, and gathering medicinal plants. Until recently, the exact location of the Weatherman Draw was unknown to outsiders. For at least the last nine years, however, oil and gas companies have been attempting to gain access to this place despite its sacredness to the many American Indians. But this struggle is not unique to Montana, nor are sacred sites, as this dissertation shows, only threatened by energy interests.

As I continued to study sacred sites struggles, which are often struggles about land and the ecosystems in which they sit, I wondered why so few academics are willing to walk the talk or even talk the talk. The challenges of other scholars to my work ring

¹² See Keith H. Basso, “The Gift of Changing Woman,” *Anthropological Papers*, no. 76, Smithsonian Institution Bureau of American Ethnology Bulletin 196 (Washington, D.C.: Government Printing Office, 1966), 113-173; John Annerino, *Apache: The Sacred Path To Womanhood* (New York: Marlowe & Company, 1998), photo 8.

hollow, especially when I look at the ways in which scholars select their research topics. What the scholars criticize is my perceived lack of historical objectivity and my partial stance.¹³ I remain committed to the thinking that if historians are to pursue objectivity as a goal it should be with the assumption that “objectivity is not neutrality.”¹⁴ I try to follow the lead of scholars such as environmental historian Roderick Frazier Nash. In *Wilderness and the American Mind*, a text that is seen as a foundational work in the field of environmental history, currently in its fourth edition, Nash took on the issues of objectivity and impartiality. Like Roderick Frazier Nash, “I will veer away from the hallowed (if always somewhat hollow) traditions of academic objectivity.”¹⁵ The purpose of an explicitly radical history—co-opting the University, giving help to groups that struggle against various injustices, committing to social change, and advocating for the environment, for example—comes directly into play regarding any history and writing about Mount Graham. I acknowledge outwardly my political standpoint and agenda regarding this place of great ecological and spiritual significance.

“Activist Scholarship”

“You’re either an activist, or an inactivist,” stated Louie Psihoyos, director of the 2010 Academy Award winning documentary film, *The Cove*, which detailed the slaughter of 20,000 dolphins off the coast of Japan each year.¹⁶ Through my life, work, teaching, and writing, I have worked to bring my activism to the forefront. I tend to agree with influential educator Paulo Freire, who stated, “I can’t respect the teacher who doesn’t dream of a certain kind of society that he would like to live in, and would like the new generation to live in. [Educators should pursue] a dream of a society less ugly than those we have today.”¹⁷ Certainly there will always be bias in any work; after all, we have to

¹³ Peter Novick, *That Noble Dream: The ‘Objectivity Question’ and the American Historical Profession* (Cambridge: Cambridge University Press, 1988).

¹⁴ Thomas L. Haskell, *Objectivity is Not Neutrality: Exploratory Schemes in History* (Baltimore: The Johns Hopkins University Press, 1998).

¹⁵ Roderick Frazier Nash, *Wilderness and the American Mind*, 4th ed. (New Haven: Yale University Press, 2001), ix.

¹⁶ Louie Psihoyos, dir., *The Cove* (Lions Gate, 2009).

¹⁷ Quoted in Roberto Bahruth, “Those Who Dare, Teach: Living a Pedagogy for Social Justice,” in James O’Donnell, Marc Pruyn, and Rudolfo Chávez, eds., *Social Justice in these Times* (Charlotte, NC: Information Age Publishing, 2004), 34.

create arguments based on our research findings. Although I was involved in the struggle to keep the University of Minnesota from joining the telescope project on Mount Graham, it was my findings as a researcher that enabled me to take a position, distinguish between right and wrong, and craft an argument based on my work. I firmly believe that it is the duty of academics to engage themselves in the debates that take place within our societies. Universities, especially state universities such as the University of Minnesota, have a duty to the citizens of the state and nation—indeed, of the world.

As I have seen, some of the best history books were written by scholars who lived through a particular event and then wrote about it. I think about scholars such as Arthur Schlesinger and Angie Debo. They wrote about “current events” or historical moments about which they had just lived. Debo’s book, *And Still the Waters Run: The Betrayal of the Five Civilized Tribes*, an exposure of a governmental conspiracy to steal mineral rich lands from Native peoples in Oklahoma, helped to bring down several corrupt officials who were still in power in 1940 when the book was published.¹⁸ As historian Eric Foner wrote, “A century ago, in his presidential address to the American Historical Association, Charles Francis Adams called on historians to step outside the ivory tower and engage forthrightly in public discourse. The study of history, he insisted, had a ‘public function,’ and historians had an obligation to contribute to debates in which history was frequently invoked with little genuine understanding of knowledge.”¹⁹ In a 2004 address to the University of Minnesota, the “most prolific indigenous writer in history,” Vine Deloria, Jr., admonished that academics need to do something to engage the public in dialogue, discussion, and debate.²⁰ Debo and Deloria engaged in and offered the best excellent examples of work that had meaning, especially for native peoples.

I also try to follow the example of Elizabeth “Betsy” Brandt, an anthropologist at Arizona State University, who has worked for and with Western Apache people for

¹⁸ See Angie Debo, *And Still the Waters Run: The Betrayal of the Five Civilized Tribes* (1940; Princeton, NJ: Princeton University Press, 1968), ix-xxi, and the wonderful film by Martha Sandlin, dir., *Indians, Outlaws, and Angie Debo*, PBS, The American Experience, Season 1, Episode 3, 1988.

¹⁹ Eric Foner, *Who Owns History?: Rethinking the Past in a Changing World* (New York: Hill and Wang, 2002), xvii.

²⁰ David E. Wilkins, “Vine Deloria Jr. and Indigenous America,” *Wicazo Sa Review*, vol. 21, no. 2 (Fall 2006), 151-155.

decades. She participates in the best forms of public scholarship. In 1992, her credibility as a researcher was attacked and her efforts as an academic activist were questioned. In response, she wrote:

As a scholar I feel that I have a responsibility both to be as accurate and truthful as I can be, and to assist the people I work with when they ask for help to the best of my ability. I don't think that is misuse of academic status. I think it is the best use of it. I find it very difficult to stand by and see what I think is injustice being done and not try to do something about it.²¹

I dare readers to find an objective scholar today. What academic writes about that which they are not passionate about and have no interest? This dissertation comes out of a deeply personal struggle against the very university I attended and for which I worked. During a conversation with historian Vijay Prashad, author of *The Karma of Brown Folk* and *Everybody was Kung Fu Fighting*, in which he discussed efforts to never “let the public forget,” I realized that by writing this dissertation I will provide a counterbalance to the actions of the university at which I will receive my degree.²²

My years of public participation, engagement, and community involvement have allowed me to better understand the importance of the collaborative possibilities between the academy and the larger community. What is the point of intellectual conversations if the conversation does nothing for the citizen on the street? I think that scholars and academics have a responsibility to be, in some small way, activists. Otherwise, our works and teachings are merely forms of intellectual gymnastics. What is the point of writing a book that only scholars read? What does that do for society? How does that book help to bring about change—socially, environmentally, economically? “Indian Studies as an academic discipline was meant to have as its constituencies the native tribal nations of America and its major purpose the defense of lands and resources and the sovereign right to nation-to-nation status,” American Indian scholar Elizabeth Cook-Lynn (Crow Creek

²¹ Elizabeth A. Brandt to Charles Polzer, letter, 9 Apr 1992.

²² Vijay Prashad to author, personal communication, 29 Mar 2002. Vijay Prashad, *Everybody was Kung Fu Fighting: Afro-Asian Connections and the Myth of Cultural Purity* (Boston: Beacon Press, 2001); Vijay Prashad, *The Karma of Brown Folk* (Minneapolis: University of Minnesota Press, 2001). See especially Vijay Prashad, “Teaching by Candlelight,” *Social Text* 90, vol. 25, no. 1 (Spring 2007), 105-115.

Sioux) once pointed out.²³ Society needs books that it can use, books that can teach us about ourselves and help us to make change. What society does not need are books that fulfill some ego within the writer or help the author make tenure. Why are some of the best books that come out of academia from scholars who already have tenure? Does not that waiting lead to a more conservative ideology that then pervades the halls of the academy? What we need are scholars who are willing to write what is right from the outset, not scholars who are more worried about how their words will be received.

During my years in academia, I have been witness to an attitude type that pervades some faculty members and academic departments. One example that shows the kind of treatment Western Apaches have historically received came from University of Minnesota astronomer Robert Gehrz. A large proponent of Minnesota's participation in the Mount Graham telescope project, he was once photographed on the mountain with the donor who provided the university's initial telescope funds.²⁴ Gehrz once compared Apaches to "fundamentalists" and the "Taliban" during a conversation with Tucson activist Dwight Metzger. In response, Metzger asked, "Do you mean traditionalists?" Gehrz replied that Apaches are the "same people who won't ever let their women take their *burkas* [head scarves] off." Gehrz then angrily added that "every mountain is sacred to some native group."²⁵ When I share such ways of thinking on the part of astronomers it is not to demonize their scientific pursuits. Let me make something clear: I do not oppose science, nor do I oppose astronomy. I oppose the ways in which I have seen astronomers run roughshod over Apaches and sacred land. The opposition was not to the work of the astronomy departments in which I came into contact. Rather it is against the arrogance of the astronomers and their supporters, as well as to the historical resemblances between their work and efforts, and colonial endeavors of the past.

²³ Cook-Lynn, *Anti-Indianism in Modern America*, 153.

²⁴ Department of Astronomy, University of Minnesota, "Letter from the Chair" and "Hubbard Broadcasting Gives \$5 Million For Telescope," *Minnesota Astronomy Review: A Newsletter for Friends and Alumni of the University of Minnesota Department of Astronomy*, vol. 16 (Winter 2000/2001), 3.

²⁵ Robert Gehrz to Dwight Metzger and author, personal communication, 1 Jun 2005, American Astronomical Society (AAS) 206th Meeting, Minneapolis, 29 May-2 Jun 2005.

It eventually dawned on me that it would not make sense for me, both intellectually and spiritually, to pursue a different dissertation. While watching fellow students write dissertations that they stated would have nothing to directly do with the present world in which we live of the people who inhabit it, I realized that I needed to write about that which I struggle against on a daily basis—society’s need to control nature, the reckless abandon with which we tread on the earth, the ways in which we harshly interact with each other, and unequal power relations. I continue to craft a career that combines my academic pursuits with my activist interests.²⁶

At the base of this study is a dissatisfaction with, as law professor Rosemary J. Coombe has described it, America’s disrespect for traditional knowledge. Beth Burrows, the director of Edmonds Institute, once commented that “In a technological world that requires the divorce of the sacred from the natural, we may come to have no sense at all of the sacred or the natural.”²⁷ The disrespect for traditional knowledge has been noted and mentioned in countless works, especially law reviews by Dean Suagee and Rebecca Tsosie.²⁸ Throughout this work, I have attempted to show Indian agency, as Indians have taken an active role in the struggle for sovereignty. I show how Apaches petitioned, lobbied, wrote letters, passed resolutions, and committed acts of civil disobedience against the U.S. government, all while passionately resisting attacks against sacred sites through the creative enlistment of non-native environmentalists, biologists, and anthropologists, and the lobbying of local, national, and international resources and organizations, including European governments and the United Nations. They also, when

²⁶ See Courtney Dillard, “Blending Academe and Activism,” *The Chronicle of Higher Education*, 29 Jul 2002.

²⁷ Rosemary J. Coombe and Beth Burrows, “Biotechnology, Biopiracy and Biodiversity: Emerging Environmental Security Issues” panel, Passport to Earth Summit 2002: Exploring Sustainable Development, University of Minnesota, 5 Apr 2002; Rosemary J. Coombe, “The Recognition of Indigenous Peoples’ and Community Traditional Knowledge in International Law,” *St. Thomas Law Review*, vol. 14 (2001), 275-285.

²⁸ Among many others, see Dean B. Suagee, “American Indian Religious Freedom and Cultural Resources Management: Protecting Mother Earth’s Caretakers,” *American Indian Law Review*, vol. 10, no. 1 (1982): 1-58; Rebecca Tsosie, “The Mount Graham Controversy,” working paper and presentation at the American Bar Association Annual Meeting on Natural Resources on Indian Lands, Nov 1996; Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books, 1999); Rebecca Tsosie, “Challenges to Sacred Sites Protection,” *Denver University Law Review* 963, vol. 83, no. 4 (2006).

necessary, broke federal and state laws. I hope that my work highlights Indian adaptability and survival.

The Presence of the Past²⁹

The past is in the present, especially in this work. It is carried with every person who has struggled to protect Mount Graham. As folk singer, storyteller, and political activist Utah Phillips once stated, “The Past Didn’t Go Anywhere.”³⁰ Many of the actions and strategies used by the promoters and supporters of astrophysical development on Mount Graham are a continuation of policies from the nineteenth century. A key component of any analysis of the history of the recent struggle for Mount Graham concerns the disentanglement of sovereignty and the ever-mutating forms of colonialism that still unfold in the present. Of course there is the irony of history repeating itself once again. “Our moral perils are not those of conscious malice,” wrote American theologian Reinhold Niebuhr. “They are the perils which can be understood only if we realize the ironic tendency of virtues to turn into vices when too complacently relied upon; and of power to become vexatious if the wisdom which directs it is trusted too confidently.”³¹

Not only is this history about the use and similarities of the past but it is also a history infused and informed by the present. Cicely Veronica Wedgwood, who specialized in European history of the sixteenth and seventeenth centuries, once observed about the role of the historian: “Surely he is looking for the truth—for what really happened. It is his job as a scholar to form as exact an idea of past events as he can from the surviving evidence.” She wrote, “But the instrument with which he looks at the past is modern. It was made, and shaped, and it operates, in the present. It is his own mind. And however much he bends his thoughts toward the past, his own way of thinking, his

²⁹ Roy Rosenzweig and David Thelen, *The Presence of the Past: Popular Uses of History in American Life* (New York: Columbia University Press, 1998). In *The Presence of the Past*, Rosenzweig and Thelen present several intriguing chapters, among them: “Using the Past to Live in the Present” and “Using the Past to Shape the Future”; Michel-Rolph Trouillot, “The Presence in the Past,” in *Silencing the Past: Power and the Production of History* (Boston: Beacon Press, 1995), 141-153.

³⁰ Utah Phillips and Ani DiFranco, “Bridges,” *The Past Didn’t Go Anywhere* (Righteous Babe Records, 1996)

³¹ Reinhold Niebuhr, *The Irony of American History* (1952; Chicago: The University of Chicago Press, 2008), 133.

outlook, his opinions are the products of the time in which he lives. So that all written history ... [is] a compound of past and present.”³² Countless scholars and social critics have connected the past and the present. “‘History,’ wrote James Baldwin, an unusually astute observer of twentieth-century American life, ‘does not refer merely, or even principally, to the past. On the contrary, the great force of history comes from the fact that we carry it within us, are unconsciously controlled by it in many ways, and history is literally *present* in all that we do.’”³³

Some of the best historians have written from an open engagement with the events and circumstances of their times.³⁴ Historian David Roediger tells us in *Colored White: Transcending the Racial Past*, that he “deliberate[ly] ... moves back and forth in time, treating past and present in the same volume, in the same section of the book, and even in the same essay.” Although he states that “Historians often deride such mixing of yesterday and today with the damning adjectives present-minded and ... presentist,” Roediger argues that when historians “bring their work to bear on contemporary issues,” they can create “a ‘usable present,’ which enables us to ... pose different and better questions about the past.”³⁵ All of the issues about which I write have historical roots. “[T]aking a longer historical view is indispensable to understanding the recent past,” as Roediger put it.³⁶

History is involved so often in the present, and used as a prop for certain agendas, that historians are duty-bound to make solid scholarly connections. History as a discipline is a conversation between the present and the past. Positing a separation between present and past is illusory at best, downright harmful at worst. Paying close attention to the conversation between the past and the present has provided many historians with the

³² C. V. Wedgwood, “The Present in the Past,” *Listener*, vol. 53, 10 Feb 1955, 235. Quoted in Jacques Barzun and Henry F. Graff, *The Modern Researcher*, 6th ed. (Belmont, CA: Wadsworth Cengage Learning, 2004).

³³ Foner, *Who Owns History?*, ix.

³⁴ Deborah M. De Simone, “The Consequences of Democratizing Knowledge: Reconsidering Richard Hofstadter and the History of Education,” *The History Teacher*, <http://www.historycooperative.org/journals/ht/34.3/desimone.html>.

³⁵ David R. Roediger, *Colored White: Transcending the Racial Past* (Berkeley: University of California Press, 2002), 16.

³⁶ Roediger, *Colored White*, 25.

opportunity to acknowledge and embrace the role of contemporary politics in their works. All historians, at some level, are influenced by and commenting on their contemporary age, but not all historians are explicit about their endeavors and agendas. Yet there still exists a tension between some scholars and historians concerning how explicit to make one's connection to the present and to what ends one's project will contribute. Many historians move back and forth between the present and the past in an attempt to make history relevant, all the while developing new ideas about what history is, related to the explosion of modern subjectivity—and notions about objectivity.

American Indian history and environmental history are good examples what role the present can play in work on the past. Historians of the environment and of Native peoples are often writing about the past while grappling personally with the problems of the present. Put another way, environmental and American Indian histories are good examples what role the present can play in work on the past. In “Peace & Dignity Song,” inspired by the organizers of the “Run for Peace and Dignity” to Mexico City in 1992, Mitch Walking Elk riffs, “Touched by the new, but believe in the old.” The director of Two Rivers Gallery in Minneapolis, Juanita Espinosa, once pointed out that, “for Native Americans, the present is ‘synonymous with the past.’”³⁷ This study deals with the intersections between past and present, in an effort to imagine a postcolonial future for native peoples and the environment. My hope is that readers will be able to acquire multiple perspectives to “generate alternative historical interpretations, questions, and imaginations” that will enable all people to transcend America's colonial/imperial past, and present, and future.³⁸

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The introduction that follows establishes the historiographical background for the dissertation, puts forth the methodology, and presents the essential questions to be addressed by briefly highlighting several Indigenous land struggles in the United States. It will also place this study in an international context by briefly describing several

³⁷ “When the Earth was New,” *Rake Magazine* (Minneapolis), Apr 2005, 25.

³⁸ Yuichiro Onishi to author, personal communication, Fall 2001 and Fall 2006.

significant land struggles and dangers to sacred places around the world that share similarities with the Mount Graham controversy.

In the eyes of Apaches who oppose the telescope project, the struggle for Mount Graham is the struggle for Apache physical and spiritual health. My project will elucidate the major factors—conflicts over use, competing worldviews, and opposing views of property, among others—involved in restoring the sacred spaces where land and culture merge in order to restore Western Apache health and sovereignty. As American Indian scholar Melissa Nelson points out, “Indigenous sovereignty is a complex process that incorporates the spiritual, cultural, political, and ecological dimensions of life and emerges as an expression of collective self-determinism.”³⁹

I plan to share my findings from this dissertation in an effort to build relationships in the communities in which I conducted some of my research. As Linda Tuhiwai Smith points out, “There are diverse ways of disseminating knowledge and of ensuring that research reaches the people who have helped make it. Two important ways not always addressed by scientific research are to do with ‘reporting back’ to the people and ‘sharing knowledge.’ Both ways assume a principle of reciprocity and feedback.”⁴⁰

My hope is to bring together in one place a great amount of the information about Mount Graham that has been over the years predominantly disseminated by pamphlet, information packets, videos, newspaper accounts, speeches and public testimony, and put it in one place, this dissertation, for use not only by the Western Apaches and environmental protection organizations but also by policy makers, and government officials, biologists, and historic preservation officers, including staff at the U.S. Forest Service, U.S. Fish and Wildlife Service, and members of Congress—and for the mountain.

“People always think, ‘There must be something else we can do,’” historian Zinn once stated. “Social Change takes place when people persist,” he pointed out. In fact,

³⁹ Melissa Nelson, “Toward A Post-colonial Ecology: Native Americans & Environmental Restoration” (Ph.D. diss., University of California, Davis, 2000).

⁴⁰ Smith, *Decolonizing Methodologies*, 15.

Zinn's writings and scholarship show that "Movements always lose and lose and lose—
until they win."⁴¹

Joel T. Helfrich

Rochester, New York
March 2010

⁴¹ Howard Zinn, speech, University of St. Thomas, St. Paul, Minnesota, 23 Apr 2003.

Let me give you a word of the philosophy of reform. The whole history of the progress of human liberty shows that all concessions yet made to her august claims, have been born of earnest struggle. The conflict has been exciting, agitating, all-absorbing, and for the time being, putting all other tumults to silence. It must do this or it does nothing. If there is no struggle there is no progress. Those who profess to favor freedom, and yet depreciate agitation ... want crops without plowing up the ground, they want rain without thunder and lightening. They want the ocean without the awful roar of its many waters.

This struggle may be a moral one, or it may be a physical one, and it may be both moral and physical, but it must be a struggle. Power concedes nothing without a demand. It never did and it never will. Find out just what a people will quietly submit to and you have found out the exact measure of injustice and wrong which will be imposed upon them, and these will continue till they are resisted with either words or blows, or with both. The limits of tyrants are prescribed by the endurance of those whom they oppress.⁴²

—Frederick Douglass, August 3, 1857

⁴² Frederick Douglass, *Frederick Douglass: Selected Speeches and Writings*, ed. Philip S. Foner, abridged and adapted by Yuval Taylor (Chicago: Lawrence Hill Books, 1999), 367; Frederick Douglass, *The Frederick Douglass Papers. Series One: Speeches, Debates, and Interviews*, vol. 3, ed. John Blasingame (New Haven: Yale University Press, 1985), 204.

INTRODUCTION: THE THEFT OF THE SACRED

Sacred Places Globally

In late November 2007, the magazine *U.S. News & World Report* launched a special issue on sacred places globally. The cover page declared, “Sacred Places: Inside the world’s most spiritually important sites and what they mean today.” On the cover was the statue of Christ the Redeemer standing high above Rio de Janeiro with the sun peeking through the clouds behind. Perched above Mount Corcovado, the twelve-story concrete-and-soapstone monument has gazed over the inhabitants of Rio for more than 77 years. Only in 2006 did Christ the Redeemer, which draws 300,000 tourists annually, “become a sacred place [after] Rio’s Roman Catholic archbishop, Cardinal Eusébio Oscar Scheid, consecrated the small chapel under the statue that now is used for religious ceremonies such as baptisms and marriages.”⁴³ That a sacred place is a tourist destination, that it can be built, and that it can also be “created” through religious consecration are only a few aspects of current thinking about sacred sites and the struggles to protect, preserve, and use them.

In the introductory essay to the special issue, titled “A History of Belief,” writer Jay Tolson highlighted a kiva of the Ancient Puebloan People, the church at the Monastery of Christ in the Desert, and a New Age organization called the Lama Foundation—all of which are located in New Mexico. In separate mini-articles, authors discussed ancient sacred places: the city of Karnak in Egypt; Australia’s Uluru (Ayers Rock); the Oracle of Delphi in Greece; and the city of Tiwanacu in Bolivia. In a section titled “The Religions of Abraham,” authors discussed the Church of the Holy Sepulcher and the Wailing Wall in Jerusalem; the Church of St. Mary of Zion in Ethiopia; and Mezquita de Corboda in Spain. In the third section of the special issue, titled “Eastern Faiths,” authors highlighted the Indian city of Varanasi, as well as the river Ganga that flows past it, the Bodhi Tree and Buddhist complex at Bodh Gaya, and the Golden Temple in India; Japan’s Grand Shrine of Ise; and the Temple of Confucius in China. Most of these articles focused on the locations and the threats to their continued use.

⁴³ Kent Garber, “Brazil’s Towering Icon,” *U.S. News & World Report*, 26 Nov 2007—3 Dec 2007, 59.

In the fourth section, titled “The Seekers,” authors discussed the Cathedral of Santiago de Compostela in Spain; Mecca in Saudi Arabia; Mount Banahaw in the Philippines; and the multi-religion community of Crestone, Colorado. In the three page article that followed titled, “The Changing House of Worship,” writer Alex Kingsbury talked about the history of American places of worship, from small Puritan churches in the New England to huge megachurches in California. About the urban Christian sanctuaries, many of which were created in storefronts, Kingsbury noted, “They are sacred spaces found, rather than sacred spaces constructed to a purpose. And they are a uniquely American invention.”⁴⁴ Like most of the sites mentioned in the special issue, there was, in the words of the famous activist, author, and scholar, Vine Deloria, Jr., no “revelation,” nor even real “reflection.”⁴⁵

Authors of the *U.S. News & World Report* special issue offered compelling examples of sacred places threatened by tourism, neglect, constant use, war, and other related onslaughts. Sidebar articles throughout the issue discussed Stonehenge; Dome of the Rock in Jerusalem; and Potala Palace, the Dalai Lama’s former residence in Tibet. Authors mentioned Lourdes in France; Amun Temple in Egypt; Chinguetti Mosque in Mauritania; the remains of the Bamiyan Buddhas in Afghanistan; the Church of the Holy Nativity in Bethlehem; Dampier Rock Art in Australia; Mother of God Peribleptos Church (St. Clement’s) in Ohrid, Macedonia; Brener Synagogue in Moises Ville, Argentina; and Tutuveni Petroglyph site in Arizona, as well as various UNESCO World Heritage Sites. The special issue highlighted the collective attacks on these holy places, but failed to discuss at any length the steps taken to protect these sites.

That a news magazine would spend so much time on the topic of religions is not surprising. A permanent section of *Newsweek* magazine, titled “Belief Watch,” focuses on faith and religion. *U.S. News & World Report* regularly has cover stories on religion.

⁴⁴ Alex Kingsbury, “The Changing House of Worship,” *USNWR*, 68.

⁴⁵ Regarding concepts of “revelation” and “reflection,” see Vine Deloria, Jr., “Reflection and Revelation: Knowing Land, Places and Ourselves,” in *For this Land: Writings on Religion in America* (New York: Rutledge, 1999), 250-260, but also 114, 157, 211, 282; Vine Deloria, Jr., *God is Red: A Native View of Religion*, 3rd ed. (1972; Golden, CO: Fulcrum Publishing, 2003), 65-67, 69, 116, 121, 277-278, but also 57, 126, 257, 281; James Swan, ed., *The Power of Place: Sacred Ground in Natural & Human Environments* (Wheaton, IL: Quest Books, 1995), 28-40.

What is significant and surprising is that *U.S. News & World Report* devoted an entire issue to sacred sites. Despite arguably the best of intentions, the special issue has, as can be expected, a number of shortcomings. Overall, the authors spent a disproportionate amount of time on sites that are important to the dominant, monotheistic religions, as well as sites outside of the United States. Even Mount Banahaw, an active volcano in the Philippines where readers could imagine that indigenous peoples go to pray and receive “seven years of forgiveness for all sins,” in spite of its mystical properties, is instead strongly influenced by Roman Catholicism.⁴⁶ Readers are left with the feeling that Mount Banahaw is a sacred Christian site, when at first glance it appeared to be a sacred site to Indigenous peoples and their native spiritual practices.⁴⁷ This example is one of many where the magazine’s authors had an opportunity to discuss sacred places to Indigenous peoples but instead focused on non-native sites. The authors could have influenced its readers to understand the threats to Indigenous sacred places globally. There was also little emphasis on Indigenous sacred sites or about “natural” sacred places and features such as mountains and mountain ranges, rivers and waterfalls, and valleys and plateaus.⁴⁸ Authors devoted a disproportionate amount of space to non-natural sites such as cemeteries, buildings, and important destinations for tourists and pilgrims. The few exceptions were Uluru, the Bodhi Tree, and Mount Banahaw.

A theme throughout these articles was the often unwritten doubt of the sacred—a central theme for opponents to the protection of sacred places. In some instances, even people who hoped to protect sacred sites marshaled the army of science and used it to explain mystical insights and experiences, such as the Oracle of Delphi, without acknowledging the spiritual or religious foundations of such holy locations. In other instances, the authors cast doubt upon the sacred character of particular sites, such as Mount Banahaw. Indeed, there existed a fundamental lack of belief that ran through

⁴⁶ Paulo Ordoveza, “The Draw of a ‘Holy Mountain,’” *USNWR*, 60.

⁴⁷ It is interesting to compare Mount Banahaw to other sacred mountain islands nearby. See MSNBC News Service, “Thousands flee Indonesian volcano: Authorities raise alert at Mount Merapi to highest ‘danger’ level,” www.msnbc.msn.com?id/12765408/print/1/displaymode/1098/, accessed 13 May 2006.

⁴⁸ Vine Deloria, Jr., *God is Red: A Native View of Religion* 2nd ed. (1972; Golden, CO: Fulcrum Publishing, 1992), 67.

many of the articles. Such an emphasis ran counter to the perceived goals of the articles. It appeared as if authors were arguing against the sacred characteristics of the sites.

The authors often missed an opportunity to educate readers by failing to talk more about the ways in which various people use most of the sites to this day, despite countless barriers. Although the special issue included a section about “the seekers” (the pilgrims who visit the sacred destinations), few topics besides tourism are discussed in this issue. Of the “6 million visitors a year” who visit Japan’s Shinto shrines at Ise, “Only a sliver of them ... consider themselves ‘religious,’ and most simply buy an amulet and snap a few pictures before departing on tour buses.”⁴⁹ This reaction to sacred places—that they are merely destinations or sites of historical significance—is a microcosm of what happens around the world. An untold number of tourists visit sacred places, yet miss the sacred and see only the beauty and the history, if they see anything at all. Most of the authors also miss the sacred, in favor of the importance of tourism and the resulting exposure which many of these sites receive. Unfortunately, in a special issue which talks about the multiple sites—many of which are visited most frequently—they note the tourism, but fail to interrogate the trouble with tourism.

In fact, nearly all of the sites mentioned by *U.S. News & World Report* appear to encourage tourists. But no authors considered the spiritual and financial cost of accommodating tourists. These authors are not alone. A recent cover story of the international edition of *Newsweek* magazine titled “The 7 Most Endangered Wonders of the World” stated, “The world’s treasures are under siege as never before.” The article suggested, “So get out and see as many as possible—before they disappear.” *Newsweek* authors for this special issue bemoan the tourist travel to “endangered places,” especially places listed by UNESCO as World Heritage Sites, while simultaneously encouraging travel to these places—as the authors did with the subtitle to the lead article. The whole issue seesawed between pro-tourist and anti-tourism articles and, despite its initial warning that the world’s treasures are under attack, the collection of essays ended with a selection of top “Travel Destination Picks.” In fact, the contradiction was lost on the

⁴⁹ Adam Volland, “Regarding Simplicity as a Virtue,” *USNWR*, 56.

authors when they wrote, “The world’s treasures may be disappearing, but that doesn’t mean you should forgo comfort and style when you go see them.”⁵⁰

Almost simultaneously, *Life* magazine published a large, glossy issue devoted to the top 100 tourist destinations every person should see before they die. Titled “Heaven on Earth: 100 Places to See in Your Lifetime,” the publication offered up more commonly-known and extremely fragile natural places such as the Great Barrier Reef, Mount Kilimanjaro, and Machu Pichu, as well as the human created mythological figure, the Sphinx.⁵¹ Perhaps there is solace in the fact that many of the people who purchased that magazine issue will never see most of the places that the special issue highlights and therefore will not have the opportunity to further degrade or threaten these places—many of which have spiritual significance.

In late 2006, *National Geographic* also highlighted “Places We Must Save,” including “world parks at risk” and “America’s Threatened Sanctuaries.”⁵² National Geographic also created the glossy book, a veritable travel guide for tourists, titled *Sacred Places of a Lifetime: 500 of the World’s Most Peaceful and Powerful Destinations* in 2008.⁵³ Less than one year after the special issue of *U.S. News & World Report* on sacred sites, that same magazine published a cover story by Julian Smith titled, “Endangered Places: How Humans are Threatening the Existence of the World’s Most Precious Destinations.”⁵⁴ Similar to the *Life* issue, this story highlighted the Great Barrier Reef, Antarctica, the Florida Everglades, the Galápagos, Mount Kilimanjaro, The Virunga volcanoes in East Africa, Venice, London’s “monuments” such as the Palace of Westminster and the Tower of London, Glacier National Park, the Taj Mahal, and the Amazon. Smith’s focus on “the recent rise of ‘last-chance tourism,’ with a see-it-before-it’s-gone mindset,” gets to the heart of approaches to the problem that regard tourism as the answer.

⁵⁰ “If You’re Going...,” *Newsweek International*, 10 Apr 2006.

⁵¹ *Life*, *Heaven on Earth: 100 Places to See in Your Lifetime*, 4 Apr 2006.

⁵² National Geographic, “Places We Must Save: World Parks at Risk,” *National Geographic*, vol. 210, no. 4, Oct 2006.

⁵³ National Geographic, *Sacred Places of a Lifetime: 500 of the World’s Most Peaceful and Powerful Destinations* (Washington, D.C.: National Geographic Society, 2008).

⁵⁴ Julian Smith, “Endangered Destinations,” *U.S. News & World Report*, 26 May—2 Jun 2008, 36-43.

Stories that highlight the beauty of the world are not uncommon. In fact, they fill dozens of books and magazines each year—all of them encouraging people to travel. Some of these publications hope that visitors will take the trips as “ecotourists,” while others anticipate that travelers will do their sightseeing the old-fashioned way—traveling by planes, using vast amounts of resources and energy, acting inconsiderately to people and to nature, and spending money. Both travel techniques have their limitations. Both do harm. But tourism is merely one threat among many to sacred places globally.

Indigenous Lands Under Siege in the United States

Americans often criticize other governments of countries such as China, India, or Turkey when villages and important historical places are flooded by dams, but then sit silent and watch as cultural and environmental treasures are submerged. Few efforts are made to turn back the tide. For example, the world’s oldest known ancient thermal city in Allianoi, Turkey, is still threatened by flooding by the Yortanli dam. In 2000, rising waters behind the recently completed Birecik Dam reburied ancient mosaics, some of which are the largest known in the world.⁵⁵ Archaeologists rushed to complete salvage excavations as the waters rose. These dams, along with many other dams and hydroelectric plants that are planned on the Tigris and Euphrates Rivers, are changing the land and drowning history.

Many scholars and activists have also pointed to the Three Gorges Dam project in China, the world’s most notorious dam, as an ultimate testament to the struggle between so-called progress and environmental and cultural history. Temples, shrines, and places of extreme historical importance, not to mention threatened and endangered species, have or will disappear forever as a result of this project. Yet many of the engineers on this dam project believe that “The river is no longer ... an unstoppable force but as a dragon which

⁵⁵ Josh Fischman and Rachel K. Sobel, “Cities in the Sand: An unparalleled season of discovery is illuminating the roots of civilization,” *U.S. News & World Report*, 10 Jul 2000; Doğan Yağız, “Tale of Zeugma and the Birecik Project,” in Barbara T. Hoffman, ed., *Art and Cultural Heritage: Law, Policy and Practice* (New York: Cambridge University Press, 2006), 255-259.

can be tamed with science.”⁵⁶ Projects like this have struck a chord in many Americans because they displace people, they flood cities and towns, they cause environmental degradation, and they bury and hide history—all of which create hostilities. Indeed, these projects, all of which are funded by an array of international groups, organizations, sources, and backers, are visible acts of violence against the land and against people, their homelands, and their history.⁵⁷

The threats to sacred sites globally are many, varied, and often bitterly opposed. One of the holiest of places in the world and a pilgrimage location in southern India that is reportedly the most visited place of worship in the world, the seven hills of Tirupati and its Tirumala Venkateswara Temple, was threatened by mining interests. Buddhist monks in Hong Kong were threatened by tourism. In fact, when the city hoped to build a monorail to a Buddhist temple in Hong Kong, the monks protested. The highest city in the world, Lhasa, Tibet, is under regular threat from the Chinese government. The list goes on. However, these struggles are not unique to the global south. A similar story has appeared in the United States.

Sacred sites protection in the United States has received a great amount of attention from scholars, activists, and journalists, especially in the last three decades. Legal scholars, Indian communities, and environmental activists lined up to comment on and protest the Supreme Court’s decision in the 1988 case of *Lyng v. Northwest Indian Cemetery Protective Association* and the April 1990 decision, *Employment Division, Department of Human Resources of Oregon v. Smith*. The Yurok, Karok, Hupa, and Tolowa, among other native peoples, protested the *Lyng* (more commonly known as the G-O Road, short for 55-mile-long link between the hamlets of Gasquet and Orleans) which permitted construction through 46,000 acres of sacred old-growth forest in northern California’s Hoopa Valley. Many activists were quick to note that the Supreme Court’s G-O Road decision was handed down during National Indian Week, as well as on

⁵⁶ *Great Wall Across the Yangtze* (Alexandra, VA: PBS Home Video, 2000). See Yung Chang, dir., *Up the Yangtze* (Zeitgeist Films, 2008).

⁵⁷ See the following films about dams in India: *Drowned Out* (Oley, PA: Bullfrog Films, 2004) and *The Dammed* (PBS Wide Angle, 18 Sep 2003).

Hitler's birthday.⁵⁸ Despite the ruling, the road was never finished. Paul Bender, former dean of the Arizona State University College of Law, said, "The courts have never said Indians don't get (religious) protections, but the protections they've developed are basically to protect Anglo religions.... It shows a lack of understanding."⁵⁹ Although these cases are documented in other publications, among many other things, they show the difficulty of protecting all that is sacred through the use of the U.S. court system.⁶⁰

Thousands of native and non-native peoples have viewed documentary films such as *Mauna Kea: Temple Under Siege*; *The Snowbowl Effect: When Recreation and Culture Collide*; and *In the Light of Reverence: Protecting America's Sacred Lands*, and have become aware of the significant destruction of place in the name of progress, science, New Age appropriation, recreation, or vandalism. Well-known activists and academics such as Vine Deloria, Jr., Roger and Walter Echo-Hawk, Jack Forbes, Winona LaDuke, Suzan Shown Harjo, N. Scott Momaday, Toby McLeod, Peter Nabokov, Jack Page, Evon Peter, James Riding In, Bobby Romero, Huston Smith, Christopher Vecsey, and others have worked tirelessly to protect native lands and resources, and have cried foul as people, governments, and institutions run roughshod over sacred lands.⁶¹ Their

⁵⁸ Marla Donato, "God lives here—for now. Highway through heaven: The loggers are coming to the Indians' holy land, where 'the spirits left the Earth,'" *Chicago Tribune*, 25 May 1988, Section 7, 5.

⁵⁹ Ben Winton, "The right to rites: Rulings tear at fabric of tribe's religious legacy," *The Phoenix Gazette*, 10 Aug 1992, A1, A10.

⁶⁰ *Lyng, Secretary of Agriculture, et al. v. Northwest Indian Cemetery Protective Association et al.*, 485 U.S. 439 (1988); *Oregon v. Smith*, 110 S. Ct. 1595 (1990). See Vine Deloria, Jr., "Trouble in High Places: Erosion of American Indian Rights to Religious Freedom in the United States," in M. Annette Jaimes, ed., *The State of Native America: Genocide, Colonization, and Resistance* (Boston: South End Press, 1992), 267-290; Deloria, *For this Land*, 203-228; Carolyn N. Long, *Religious Freedom and Indian Rights: The Case of Oregon v. Smith* (Lawrence: University Press of Kansas, 2000).

⁶¹ See, for example, Phil Cousineau, *A Seat at the Table: Huston Smith in Conversation with Native Americans on Religious Freedom* (Berkeley and Los Angeles: University of California Press, 2006); Deloria, *God is Red*, especially his essay, "Sacred Places and Moral Responsibility," 267-282; Jack D. Forbes, "Religious Freedom and the Protection of Native American Places of Worship and Cemeteries" (Native American Studies, Tecumseh Center, University of California, Davis), Jan 1977, 1-24; Guilliford, *Sacred Objects and Sacred Places: Preserving Tribal Traditions* (Boulder: University Press of Colorado, 2000); Winona LaDuke, *Recovering the Sacred: The Power of Naming and Claiming* (Cambridge, MA: South End Press, 2005); N. Scott Momaday, "The American Land Ethic," in *The Man Made of Words: Essays, Stories, Passages* (New York: St. Martin's Griffin, 1997), 42-49; Peter Nabokov, *Where the Lightning Strikes: The Lives of American Indian Sacred Places* (New York: Viking, 2006); Jack Page, ed., *Sacred Lands of Indian America* (New York: Harry N. Abrams, 2001); Robby Romero, dir., "Makoče Wakan (Sacred Earth)," VH1 World Alert Rockumentary Film Special Edition (VH1/Video Hits One, 1993); Friends of Mount Graham video by Sky Crosby, dir., *International Day of*

sense of urgency is notable; they rightly understand that sacred places in the U.S. are under attack. At the least, sacred places are threatened. Along with allies from various tribes, academic institutions, and groups, they have written articles and monographs, spoken at conferences, and attempted to shepherd legislation through state, national, and international governments.⁶² They clearly see a need to fight for the sacred, for they know that many places and the inherent sacred knowledge that they convey are becoming irrevocably lost. Indeed, sacred places are the flooded treasures of the United States—flooded by corporate interests, illusions of progress, thrill-seeking recreationists, and proponents of technology at all costs. Unfortunately, cultural and environmental histories are being lost in the process: petroglyphs and pictographs are destroyed almost daily, villages and materials are caught behind dams, certain powerful places are neutralized by New Age practitioners, and various governmental organizations create roads through spiritual homelands in the name of progress. As a Bureau of Land Management archaeologist put it, “To the tribes, these places are sacred. This is the Native American people’s heritage, and it’s being raped.... There is a lot of knowledge that’s being lost.”⁶³

Perhaps the most useful and informative portion of the *U.S. News & World Report* special issue on sacred places was the article titled, “When Hallowed Ground Is at Risk.” Although he focused on battle grounds, churches, and cemeteries, Kevin Whitelaw’s article discussed the various ways in which sacred places are harmed. A main point made by Whitelaw is that “the sheer scope of the spiritual places vulnerable ... is intimidating.”⁶⁴ He described sites that are vulnerable to natural threats, including climate change, conflict, development, neglect, and vandalism. His list parallels lists compiled by organizations such as Partners for Sacred Spaces, the World Monuments Fund, the National Trust for Historic Preservation, and other groups nationally and globally who

Actions in Defense of Mount Graham (Tucson: ECO Productions, 1994); Christopher Vecsey and Robert W. Venables, ed., *American Indian Environments: Ecological Issues in Native American History* (Syracuse: Syracuse University, 1980); Sacred Land Film Project, www.sacredland.org; Carol Berry, “Vine Deloria Jr.’s legacy continues to inspire,” *Indian Country Today*, 5 May 2008.

⁶² Ryan Pearson, Associated Press, “Tribes aim to form plan to guard sacred lands,” *The Arizona Republic* (Phoenix), 13 Dec 2002, A33.

⁶³ Eric Wills, “The Inside Man: Going Undercover to Protect the Nation’s Public Lands,” *Preservation*, Jan/Feb 2010, 21.

⁶⁴ Kevin Whitelaw, “When Hallowed Ground Is at Risk,” *USNWR*, 70.

are fighting to protect sacred places. Other groups, such as the National Council of Churches and Sacred Land Film Project, have created lists of sacred places under attack in the United States as a result of “progress,” New Age spiritualists, recreation, vandalism, and advancements in science and technology.⁶⁵ Although all of these threats are common throughout the world, the United States above all countries excessively and obsessively attacks sacred sites, despite its historically touting itself as being a bastion of religious freedom, tolerance, and inclusion.⁶⁶

A deep sense of and commitment to “progress” makes sacred sites protection untenable. Progress includes road construction, railroads, hydroelectric dams, logging, oil and gas exploration and drilling, mining, communications towers, other natural resources, and development. A small and incomplete sample of Indigenous sites that have received a great amount of media exposure, include: Zuni Salt Lake (Zuni), Snoqualmie Falls (Yakima/Snoqualmie), and Star Mountain and Big Mountain (Navajo and Hopi), because of the perennial encroachment of Peabody Coal.⁶⁷ Spirit Mountain (Halapai of Arizona) is endangered by the double threat of tourism and development. Two locations that contain what is arguably the largest collection of American Indian rock art in the country include Weatherman Draw (also known as “Valley of the Chiefs” and “Valley of the Shields”) in south-central Montana and Nine-Mile Canyon in Utah. Both of these sites are sacred to numerous tribes and both locations are under constant threats from the Bureau of Land Management, energy companies, and other developers. Although the oil and gas leases at Weatherman Draw were eventually turned over to the National Trust for Historic Preservation in 2002, the future of Weatherman Draw is still not secure. In Utah, the Utes and the Hopis are still hoping to find protection from the BLM for what is called

⁶⁵ For a good pamphlet on and list of then-current sacred sites struggles, consult Andrea Lee Smith, *Sacred Sites, Sacred Rites* (American Indian Community House and the National Council of the Churches of Christ in the USA, 1998). See also the Sacred Land Film Project list at www.sacredland.org.

⁶⁶ See Steven Waldman, *Founding Faith: Providence, Politics, and the Birth of Religious Freedom in America* (New York: Random House, 2008) for more about the Founding Fathers and a better understanding of religious freedom in the United States.

⁶⁷ Jeffrey St. Clair, “Showdown at Big Mountain,” *Been Brown So Long It Looked Like Green To Me* (Monroe, ME: Common Courage Press, 2004), 226-233.

the “world’s longest art gallery.”⁶⁸ In Minnesota, the sacred Coldwater Spring is under constant threat of contamination from a highway reroute. The people of the Pimicikamak and Nisichawayasihk Cree Nations of Canada are fighting Manitoba Hydro and Xcel Energy.⁶⁹

The coastal plain of the Arctic National Wildlife Refuge, according to the Inupiat and Gwich’in peoples is described as the “sacred place where the life begins.”⁷⁰ According to Subhankar Banerjee, who wrote a book about Alaska’s Arctic National Wildlife Refuge subtitled *Seasons of Life and Land* and whose work was the basis of a planned Smithsonian photographic exhibit in 2003 that was moved from an important spot to a less prominent location, “I was told that my work was just too political.”⁷¹ But the debates regarding oil drilling on Alaska’s north shore are rarely framed in terms of religious freedom. Like many struggles over land, the debates are always about politics over the sacred characteristics of any given place.

The effects of New Age spiritual practitioners on Indigenous sacred landscapes are best seen in Toby McLeod’s *In the Light of Reverence*. In the documentary film, Wintu Indians fight to protect their sacred Mount Shasta against the wishes of New Agers who hope to use the mountain for their spiritual practices. Like other destinations such as Sedona and Mount Tamalpais near San Francisco, Mount Shasta holds great power for New Age practitioners.⁷² According to anthropologist Peter Nabokov, “The mystical allure of Mount Shasta for non-Indians blossomed with the Harmonic Convergence celebrations of 1987. After New Age guidebooks spread the word, pale-bodied pilgrims were prancing across Panther Meadows in the nude, beating tom-toms, painting daises on its rocks and leaving crystals and letting their dogs bathe in Florence [Jones’ (Wintu) sacred] spring.”⁷³ Then developers planned to open Panther Meadow to downhill skiing,

⁶⁸ Jack Page, “Sacred Ground: Landscapes as Living Spirit,” *Native Peoples*, 20 no. 3 (May-Jun 2007), 26-32.

⁶⁹ Dawn Mikkelson and Jamie A. Lee, dirs., *Green Green Water* (CreateSpace, 2006).

⁷⁰ Subhankar Banerjee, lecture presentation, University of Minnesota, 24 Apr 2003; Subhankar Banerjee, *Arctic National Wildlife Refuge: Seasons of Life and Land* (Seattle: Mountaineers Books, 2003).

⁷¹ “The Smithsonian: Pictures of Controversy,” *Newsweek*, 5 May 2003, 16.

⁷² See Sacred Sites Directory, “Mt. Shasta Area: Sacred Sites Pocket Directory,” brochure, 2002.

⁷³ Nabokov, *Where the Lightning Strikes*, 290.

install new lifts, and build lodges. In addition to Mount Shasta, New Agers have coopted spaces at Boynton Canyon (Camp Verde Apache) and Cold Spring Mountain (North Wintu). Nabokov stated that such “cultural assault[s] conceded the existence of American Indian spirits of place, but tore them out of context and trivialized them.”⁷⁴ In American Indian communities, New Age interference in Native ceremonies and willful destruction of Indigenous sacred sites by New Age spiritualists are constant concerns.

Recreation, in the form of tourism, parks, rafting, rock climbing, and skiing, also plays a part in the persistent attack on sacred places. Few sites have received as much attention as Rainbow Bridge (Navajo), which has been under attack by various tourism schemes and dam projects; Boboquiviri Peak (Tohono O’odham), which has been sought by recreationists and developers; or the San Francisco Peaks (Navajo/Hopi/other tribes), which have been sought by developers, mining companies, and groups interested in expanding ski operations.⁷⁵ Other notable sites include the Black Hills and Bear Butte (Sioux/Cheyenne/Arapahoe), the so-called Devil’s Tower (Sioux/Cheyenne), Tlxni (Confederated Tribes of Warm Springs), Legend Rock (Shoshone/Arapaho), and Whoopup Canyon (Shoshone/Arapaho). Just outside of Duluth, Minnesota, a sacred place named Spirit Mountain is being sought after by developers for use as a golf course.⁷⁶

As pointed out by LaDuke, there exists a great deal of power and colonialism in the “naming and claiming” of sacred objects, food, and places.⁷⁷ There are countless examples of renaming in the United States. For example, the Wakan River in Minnesota was renamed by white Europeans to Rum River. Parallels abound in India where only recently did many of the cities and places return to their original names—Mumbai (Bombay), Chennai (Madras), and Thiruvananthapuram (Trivandrum), for example. One of the most insidious place names in the United States is Devil’s Tower, the focal point of Steven Spielberg’s 1977 film, *Close Encounters of the Third Kind*. Although some rock

⁷⁴ Nabokov, *Where the Lightning Strikes*, 286.

⁷⁵ See Klee Benally, dir., *The Snowbowl Effect: When Recreation and Culture Collide* (Indigenous Action Media, 2005); Save the Peaks Coalition, www.savethepeaks.org; as well as recent struggles for the “Peaks.” See John R. Welch, “A *dzil ncha si’an* Chronology” (updated 20 Jan 2008, photocopy), 1-75.

⁷⁶ Winona LaDuke, “Spirit Mountain under attack again by golf course proponents,” *The Circle* (Minneapolis), 31 Jul 2002.

⁷⁷ LaDuke, *Recovering the Sacred*.

climbers observe the moratorium on climbing during certain times of the year, “True progress ... would include a name change—Bear’s Lodge has been proposed.... From the Native point of view, calling it Devil’s Tower is about as respectful as calling St. Patrick’s Cathedral in New York the Windigo Wine Bar.”⁷⁸ Such examples of unwillingness to change or to take responsibility for past wrongs show the persistence of colonialism in the present.

On the surface, a great amount of land in the U.S., from the perspective of many non-native people, appears to have no markers of the sacred. In some notable examples, these stolen lands possess sacred animals that see attacks from development, recreation, and other activities that are under way. The Seneca Army Depot near Seneca Lake in Upstate New York is an example of a site where numerous groups are interested in doing something to a property without thinking about the sacred characteristics of the place. The former depot is home to the largest population of white deer in the world. This land struggle is not argued from a sacred place perspective, yet several Indian tribes, including the Lenni Lenape, have come forward to discuss the significance of these sacred animals, of which there is a herd of approximately 200.⁷⁹ Although environmentalists have neglected to include Indians in the process, as is a major problem with nearly every national environmental group, efforts are underway to halt developers who hope to build a hunting lodge at the former depot and allow trophy hunters to fly in from all over the world to pay to kill a prized white deer.⁸⁰ Such recreational activities account for a theft of the spirit of native peoples—indeed, a theft of the spirit of all sacred living animals.

A persistent problem in the United States is vandalism and non-Indian claims to land. William Clark, of the famous Lewis and Clark Expedition, left his still-visible signature at numerous places in the West, especially “Pompy’s Tower,” with the date July 25, 1806. “Pompy’s Tower” was the site of numerous examples of rock art. According to Clark, “The Indians have made 2 piles of Stone on the top of this Tower. The natives have ingraved on the face of this rock the figures of animals &c. near which I

⁷⁸ Page, “Sacred Ground.”

⁷⁹ Dennis Money to author, personal communication, 2007; Deborah Tall, *From Where We Stand: Recovering a Sense of Place* (Baltimore: The Johns Hopkins University Press, 1996).

⁸⁰ See Seneca White Deer, Inc., www.senecawhitedeer.org, accessed 26 Mar 2010.

marked my name and the day of the month & year.”⁸¹ Numerous teenagers, drunks, ignorant adults, and religious fundamentalists have followed suit over the past 200 years.⁸² Vandalism is present in nearly every community in America, but especially so at many sacred sites. Vandals deface pictographs and petroglyphs, steal pottery, carve their names and initials into rocks and trees, and break or destroy sacred spaces. Some destruction is done willfully while other destruction and tampering, such as the collection of pottery shards, is often done innocently. Examples of vandalized include Children’s Shrine (Tohono O’odham), Dekkas Spirit Camp (North Wintu), and Castle Gardens and Cedar Canyon (Shoshone/Arapaho), as well as countless others. In 2003, I spoke to a woman at a store in Pueblo, Colorado, who recounted her visit to a large petroglyph of a buffalo on the Colorado Plateau—a place where she and her family had travelled for years. She was disappointed to arrive that summer and see that the buffalo had been riddled with bullet holes. Her story is familiar to many Indians.

Periodically and with increasing frequency, sacred places are sought after, not for their spiritual powers but for the value of the land, by developers. So it goes, once a site is “saved” it is rarely protected from future encroachments. Bear Butte is a sacred site in the Black Hills, and for a time recently it was in danger of being developed into a “recreation center” and rifle range.⁸³ Located near Sturgis, South Dakota, Bear Butte is also threatened by the annual motorcycle rally and efforts in 2007 to build a biker bar

⁸¹ See Robert J. Miller, *Native America, Discovered and Conquered: Thomas Jefferson, Lewis & Clark, and Manifest Destiny* (2006; Lincoln: Bison Books, 2008); Lindsay G. Robertson, *Conquest by Law: How the Discovery of America Dispossessed Indigenous Peoples of Their Lands* (New York: Oxford University Press, 2005). See the 1823 Supreme Court case of *Thomas Johnson and Graham’s Lessee v. William M’Intosh*, 21 U.S. (8 Wheat.) 543, that determined that Indians did not hold title to their lands and therefore could not sell land to private U.S. citizens.

⁸² The most notorious example of vandalism recently is the destruction in 2001 of the Bamiyan Buddha statues in Gandhara, Afghanistan. See Bérénice Geoffroy-Schneiter, *Gandhara: The Memory of Afghanistan* (New York: Assouline, 2001). In March 2002, longtime Arizona activist Carolina Butler wrote, “Much of the world was rightly horrified last year when the Taliban obliterated the history and culture of Afghanistan by cruelly destroying two giant Buddhas. We are doing the same thing today to Arizona’s Apache Indians by constructing telescopes on their sacred Mt. Graham despite their protests. The participating astronomers and university leaders are just as heartless.” Carolina Butler, “Arizona’s Taliban,” letter to editor, *News from Indian Country: The Independent Native Journal*, Late Feb 2002; Carolina Butler to MNoffMtGraham@yahoo.com, “[MN off Mt Graham] Response to Craig,” 6 Mar 2002.

⁸³ Lisa Elbert to author, email, “Bear Butte Petition on-line FYI,” email, 28 Feb 2003.

nearby. According to Jack Page, who has written a number of books and essays about sacred sites struggles, “the world keeps threatening, keeps pressing, keeps coming up with uses for the butte and the lands around it that are in fact simply horrid, if you consider that for countless thousands of Native people Bear Butte is as holy a place as the Vatican is for Roman Catholics.”⁸⁴ The occupation and development of land in the U.S. will act as concerns to Native peoples, so long as development threatens the protection of sacred places and archeological materials.⁸⁵

Over the years, some sacred places and objects have been spared. Zuni Salt Lake, Petroglyph National Monument, and Wakan Tipi (otherwise known as Bruce Vento Nature Sanctuary) in St. Paul, Minnesota, are notable examples.⁸⁶ In 1993, at the Minneapolis Institute of Arts, curators cancelled a planned exhibit of sacred pipes and respectfully removed them after requests from the public. Despite such respectful actions, at the same time, a 1890s Yankton Sioux pipe bag sold in New Orleans for \$3000.⁸⁷ In October 2003, activists halted an Albuquerque “Street Bonds” bill that would have created a commuter road through Petroglyph National Monument, a sacred area to the Pueblo people.⁸⁸ In spite of such positive news, Wal-Mart announced plans in 2004 to build a store near the ancient temples of Teotihuacan in Mexico.⁸⁹ And the largest case in U.S. history involving the theft of the sacred ceremonial objects occurred in 2009. “This case involves significant collections of Indian artifacts taken from public and tribal lands

⁸⁴ Page, “Sacred Ground,” 26-32.

⁸⁵ See, for example, Mark Tran, “Race to save Miami’s own Stonehenge,” *The Guardian* (London), 1 Feb 1999.

⁸⁶ Bryn Jones, “Massive Coal Mine Threatens Zuni Salt Lake,” *Earth First!: The Radical Environmental Journal*, vol. 22, no. 7, Lughnasadh (Aug-Sep 2002), 20-21; Christopher (Toby) McLeod to author, “Zuni Salt Lake Saved!” email, 5 Aug 2003; Toby McLeod to author, “Help Save Petroglyphs National Monument! (2),” email, 9 Oct 2003; Laura Yuen, “Sacred site is reborn as city sanctuary: Restoration of oft-abused St. Paul floodplain celebrated Saturday,” *Pioneer Press* (St. Paul, MN), 19 May 2005.

⁸⁷ A`pè`sa WoKicize, “Misuse of the sacred pipe,” letter to editor, *News from Indian Country*, vol. VII, no. 5, mid-March 1993, 12.

⁸⁸ Toby McLeod to author, “A Victory for Petroglyphs?” email, 29 Oct 2003.

⁸⁹ Mark Stevenson, “Wal-Mart to build store near Mexican temple,” *The Post and Courier* (Charleston, S.C.), 4 Sep 2004.

by excavators, sellers and collectors, including priceless artifacts sacred to Native Americans,” said Brett Tolman, the U.S. Attorney in Utah.⁹⁰

Even federal departments are responsible for digging up and destroying burial remains. When the Army Corps of Engineers uncovered human bones in Yankton, South Dakota, in 1999, it did not follow the laws required to protect the site. Instead, the Corps continued its activities in the area, which led to a lawsuit by the Yankton Sioux Tribe.⁹¹ The story was barely covered by the media, even in the South Dakota press.⁹² “When you pull them [pottery, bones, arrowheads, and ceremonial objects] out of the ground, entire histories are gone,” said Craig Childs, the author of a forthcoming book on the theft of artifacts titled *Finders Keepers*. “It is a form of archaeological genocide, where you are getting rid of the entire history of people living in a place.”⁹³ The efforts to reclaim stolen property call forth protests against Mount Rushmore, a sacred place in the Black Hills, during the 1970s, but also earlier efforts much earlier such as at Taos Blue Lake and Mount Adams to recover traditional cultural properties.⁹⁴

⁹⁰ Howard Berkes, “Artifacts Sting Stuns Utah Town,” NPR, 1 Jun 2009, <http://www.npr.org/templates/story/story.php?storyId=106091937>. See also, Howard Berkes, “Rare Guilty Pleas in Artifacts Sting,” NPR, 8 Jul 2009, <http://www.npr.org/templates/story/story.php?storyId=106376598>.

⁹¹ There are many parallels between this case and the archaeological remains found in Range Creek Canyon in Utah. Many American Indians and archeologists are also worried about looting and vandalism to the Fremont culture village. See Michael Yount, Elizabeth Neff and Greg Lavine, “Directors of Fremont dig notify scholars, not tribes: Human remains: The oversight may have violated laws protecting the Indians’ sacred interests,” *The Salt Lake Tribune* (Salt Lake City, UT), 19 Aug 2004; Associated Press, “Debate could threaten ancient treasures,” *The Arizona Republic* (Phoenix), 25 Nov 2005; Paul Foy, “Ancient Indian villages revealed: Untouched site in Utah described as spectacular,” *Democrat and Chronicle* (Rochester, NY), 27 June 2004; Electra Draper, “Wilcox a thorn in the side,” *Denver Post*, 27 January 2007.

⁹² Guy Lopez to author, email, 13 May 2003. See articles by John-John Williams IV and Lee Williams in the *Argus Leader* (Sioux Falls, SD), as well as the Dakota-Lakota-Nakota Human Rights Advocacy Coalition, http://www.dlncoalition.org/dln_coalition/index.htm, accessed 3 Apr 2010.

⁹³ Howard Berkes, “Arrests Made in Sale of American Indian Artifacts,” 10 Jun 2009, <http://www.npr.org/templates/story/story.php?storyId=105195472>.

⁹⁴ Edward C. Valandra, “Decolonizing ‘Truth’: Restoring More than Justice,” in Wanda D. McCaslin, ed., *Justice as Healing: Indigenous Ways—Writings on Community Peacemaking and Restorative Justice from the Native Law Centre* (St. Paul, MN: Living Justice Press, 2005), 29-53; John Taliaferro, *Great White Fathers: The Story of the Obsessive Quest to Create Mt. Rushmore* (Cambridge, MA: PublicAffairs, 2002); John Taliaferro, Interview by Jim Fleming, “Mountain Splendor,” *To the Best of Our Knowledge*, Wisconsin Public Radio, 11 May 2003.

Such examples of wanton destruction of place, ceremonial objects, and burial remains, are indicative of an adolescent society bereft of any spirituality that connects people to the land. Such actions of vandalism—more than likely by white Americans—not only show that Indians are still getting burned but at a deeper level that American citizens do not see and in fact acquiesce in the process of the destruction of place.⁹⁵ According to Kiowa author N. Scott Momaday, “The sacred places of North America are threatened, even as the sacred earth is threatened. In my generation we have taken steps—small, tentative steps—to preserve forests and animals. We must also, and above all, take steps to preserve the spiritual centers of our earth, those places that are invested with the dreams of our ancestors and the well-being of our children.” Continued Momaday, “We must preserve our sacred places in order to know our place in time, our reach to eternity.”⁹⁶

In an effort to document the linkages among American Indian communities, American Indian religious Freedom, and land, a great amount of material has been gathered over the years that highlights the importance of various sacred sites. The sheer amount of information and documents on and about sacred sites, religious freedom, human rights, historic preservation, environmental justice, and American Indians—and the connections between many of these topics—is staggering. Entire websites are devoted to trying to keep a bibliographic record, to little success.⁹⁷ Annual conferences, workshops, college courses, and legislation keep the issue of sacred sites protection at the forefront of agendas across the U.S. and around the world.⁹⁸ Countless publications, all of which generally overlap, have dealt with sacred places generally⁹⁹; American Indian

⁹⁵ David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000); Kenn Harper, *Give Me My Father's Body: The Life of Minik, the New York Eskimo* (Hanover, NH: Steerforth Press, 2000).

⁹⁶ N. Scott Momaday, “Sacred Places,” in *The Man Made of Words: Essays, Stories, Passages* (New York: St. Martin's Griffin, 1997), 116-117.

⁹⁷ For example, see the resources available at Sacred Land Film Project at www.sacredland.org.

⁹⁸ See Native American Sacred Lands Forum, University of Colorado, Denver, Colorado, Oct 2001.

⁹⁹ See the “Bibliography” compiled by Sacred Land Film Project, <http://www.sacredland.org/home/resources/research/research-material/bibliography>. See *The American Indian's Sacred Ground: The story of the American Indian and his relationship to the land* (Freewheelin' Films, 1977); Steven C. Moore, “Sacred Sites and Public Lands,” in Christopher Vecsey, ed., *Handbook of American Indian Religious Freedom* (1991; New York: Crossroad, 1996), 81-99; Gary Rhine, dir., *A*

religious freedom and spirituality¹⁰⁰; the connections between American Indians, land, and the environment, as well as issues regarding environmental justice¹⁰¹; books on

Seat at the Table: Struggling for American Indian Religious Freedom (Kifaru Productions, Inc., 2004); Page, ed., *Sacred Lands of Indian America*; Paul C. Durand, *Where the Waters Gather and the Rivers Meet: An Atlas of the Eastern Sioux* (Prior Lake, MN: P. C. Durand, 1994); Tom Petrie, Kim Leighton, Greg Linder, eds., and E. O. Wilson, *Temple Wilderness: A Collection of Thoughts and Images on Our Spiritual Bond With the Earth* (Minocqua, WI: Willow Creek Press, 1996); Hal Rothman, *America's National Monuments: The Politics of Preservation* (Lawrence, KS: University Press of Kansas, 1989); Hal Rothman, *Preserving Different Pasts: The American National Monuments* (Urbana: University of Illinois Press, 1989); John F. Sears, *Sacred Places: America's Tourist Attractions in the Nineteenth Century* (New York: Oxford University Press, 1989), 6, 8, 38, 39, 42, 48; Roy M. Robbins, *Our Landed Heritage: The Public Domain, 1776-1970* (Lincoln: University of Nebraska Press, 1976); Belden C. Lane, ed., *Landscapes of the Sacred: Geography and Narrative in American Spirituality* (Baltimore: The Johns Hopkins University Press, 2002); David Chidester and Edward T. Linenthal, *American Sacred Space* (Bloomington: Indiana University Press, 1995).

LaDuke and Harjo, president of the Morning Star Institute in Washington, D.C., offered brief lists of sacred places under attack in the U.S. See Winona LaDuke, "Commentary: Is it sacred enough?" Minnesota Public Radio, 30 Jan 2004,

http://news.mpr.org/features/2003/08/18_gundersond_spiritladuke/, accessed 21 Feb 2004; Suzan Shown Harjo, "Sacred places under attack in Native America," *Indian Country Today*, 18 Dec 2002. See also, Winona LaDuke, "Wind Not War," lecture, University of Minnesota, 16 May 2003; Patricia Gonzales and Roberto Rodriguez, "Sacred Spaces, Sacred Sites," Column of the Americas, *Universal Press Syndicate*, 27 Jun 2003; Steven Newcomb, "The sacred birthright of indigenous peoples," *Indian Country Today*, 15 Aug 2003; "Pilot Knob EAW Comment?—Please send your comments now," email, 22 Oct 2003; Jon Lurie, "Camp Stronghold," *The Circle* (Minneapolis), Oct 2002, 12. .

The Southwest is an area of the country most affected by the loss of sacred sites due to, among other problems, vandalism, road construction, and theft. See Ryan Slattery, "Southwest struggles to preserve petroglyph sites," *Indian Country Today*, 6 Feb 2004; Reed Karaim, "What Lies Beneath?: As newcomers pour into the Southwest, the nation's richest archaeological sites are being trampled underfoot," *Preservation*, Sep-Oct 2001, 44-51; Michael Headerle, "Saving Our Past From the Jaws of Subdivision," *Los Angeles Times*, 11 Nov 1996, E1-E2.

¹⁰⁰ Gabrielle A. Tayac, "Stolen Spirits: An Illustrative Case of Indigenous Survival through Religious Freedom," in Dan Morrison, ed., *American Indian Studies: An Interdisciplinary Approach to Contemporary Issues* (New York: Peter Lang Publishing, 1997), 217-231; Christopher Vecsey, ed., *Handbook of American Indian Religious Freedom* (1991; New York: Crossroad, 1996); Lee Irwin, ed., *Native American Spirituality: A Critical Reader* (Lincoln: University of Nebraska Press, 2000); Vine Deloria, Jr., "Secularism, Civil Religion, and the Religious Freedom of American Indians," in Devon Abbott Mihesuah, ed., *Repatriation Reader: Who Owns American Indian Remains?* (University of Nebraska Press, 2000), 169-179; Vine Deloria, Jr., *God is Red: A Native View of Religion* (New York: Dell Publishing, 1973); Vine Deloria, Jr., "Trouble in High Places: Erosion of American Indian Rights to Religious Freedom in the United States," in M. Annette Jaimes, ed., *The State of Native America: Genocide, Colonization, and Resistance* (Boston: South End Press, 1992), 267-290; Vine Deloria, Jr., *Evolutionism, Creationism, and Other Modern Myths: A Critical Inquiry* (Golden, CO: Fulcrum Publishing, 2002).

¹⁰¹ John A. Grim, ed., *Indigenous Traditions and Ecology: The Interbeing of Cosmology and Community* (Cambridge, MA: Harvard Press for the Center for the Study of World Religions, Harvard University, 2001); Annie Grace Ross, "One Mother Earth, One Doctor Water: A Story about Environmental Justice in the Age of Nuclearism. A Native American View" (PhD diss., University of California, Davis, 2002); Anne Hyde Farrar, *An American Vision: Far Western Landscape and National Culture, 1820-1920* (New York: New York University Press, 1990); Katherine T. McCaffrey, *Military Power and Popular Protest:*

American Indian star knowledge¹⁰²; law reviews and lawsuits¹⁰³; and Mount Graham specifically, including innumerable chapters of books, newspapers, government reports,

The U.S. Navy in Vieques, Puerto Rico (Rutgers University Press, 2003); Mansel G. Blackford, "Environmental Justice, Native Rights, Tourism, and Opposition to Military Control: The Case of Kaho'olawe," *The Journal of American History*, September 2004, 544-571; Donald L. Fixico, *The Invasion of Indian Country in the Twentieth Century: American Capitalism and Tribal Natural Resources* (Niwot, CO: University Press of Colorado, 1998); Melissa L. Meyer, *The White Earth Tragedy: Ethnicity and Dispossession at a Minnesota Anishinaabe Reservation, 1889-1920* (Lincoln: University of Nebraska Press, 1994); Fresh Energy to author, "Inuit culture being damaged by global warming: Delegation traveling to D.C. to provide first-hand testimony accusing the Bush administration of undermining their human rights," email, 26 Feb 2007; Melissa K. Nelson, ed., *Original Instructions: Indigenous Teachings for a Sustainable Future* (Rochester, VT: Bear & Company, 2008); Duane Blue Spruce and Tanya Thrasher, ed., *The Land Has Memory: Indigenous Knowledge, Native Landscapes, and the National Museum of the American Indian* (Chapel Hill: University of North Carolina, 2009); Clyde Woods, *Development Arrested: The Blues and Plantation Power in the Mississippi Delta* (New York: Verso, 1998); Dan McGovern, *The Campo Indian Landfill War: The Fight for Gold in California's Garbage* (Norman: University of Oklahoma Press, 1995).

See also, Vine Deloria, Jr., *Custer Died for Your Sins: An Indian Manifesto* (New York: Macmillan, 1969); Robert F. Berkhofer, Jr., *The White Man's Indian* (New York: Vintage Books, 1979); Al Gedicks, *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations* (Cambridge: South End Press, 1993); Vine Deloria, Jr., *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact* (New York: Scribner, 1995); Vine Deloria, Jr., *Spirit & Reason: The Vine Deloria, Jr., Reader* (Golden, CO: Fulcrum Publishing, 1999); Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books, 1999); Winona LaDuke, *All Our Relations: Native Struggles for Land and Life* (Cambridge: South End Press, 1999); Al Gedicks, *Resource Rebels: Native Challenges to Mining and Oil Corporations* (Cambridge: South End Press, 2001); Winona LaDuke, *The Winona LaDuke Reader: A Collection of Essential Writings* (Stillwater, MN: Voyageur Press, 2002).

¹⁰² The number of scholarly and popular works that describe archaeoastronomy, native astrology, and star knowledge is large and growing. Regarding star knowledge and astronomy of two separate Apache groups, see Claire R. Farrer, *Living Life's Circle: Mescalero Apache Cosmovision* (1991; Albuquerque: University of New Mexico, 1994) and Kay Parker Schweinfurth, *Prayer on Top of the World: The Spiritual Universe of the Plains Apaches* (Boulder: University Press of Colorado, 2002). For a small collection of books on these topics, see also Anthony N. Aveni, ed., *Native American Astronomy* (Austin: University of Texas Press, 1977); Ray A. Williamson, ed., *Archaeoastronomy in the Americas* Ballena Press Anthropological Papers, no. 22 (Los Altos, CA: Ballena Press, 1981); Von Del Chamberlain, *When Stars Came Down to Earth: Cosmology of the Skidi Pawnee Indians of North America* (Los Altos, CA: Ballena Press, 1982); Ray A. Williamson, *Living the Sky: The Cosmos of the American Indian* (Norman: University of Oklahoma Press, 1987); J. McKim Malville and Claudia Putnam, *Prehistoric Astronomy of the Southwest* (Boulder: Johnson Books, 1989); Ray A. Williamson and Claire R. Farrer, eds., *Earth & Sky: Visions of the Cosmos in Native American Folklore* (Albuquerque: University of New Mexico Press, 1992); Ron McCoy, *Archaeoastronomy: Skywatching in the Native American Southwest*, in *Plateau* (Flagstaff, AZ: Museum of Northern Arizona), vol. 63, no. 2, 1992; Dorcas Miller, *Stars of the First People: Native American Star Myths and Constellations* (Boulder: Pruett Publishing Company, 1997); David H. Kelley and Eugene F. Milone, *Exploring Ancient Skies: An Encyclopedic Survey of Archaeoastronomy* (The Netherlands: Springer, 2004); Ray A. Williamson, *They Dance in the Sky: Native American Star Myths* (New York: Sandpiper, 2007); as well as numerous other books written and edited by Aveni and Williamson.

¹⁰³ Brian Edward Brown, *Religion, Law, and the Land: Native Americans and the Judicial Interpretation of Sacred Land* (Westport, CT: Greenwood Press, 1999); Robert A. Tennert, *Alternative to Extinction:*

essays for academic degrees, a Determination of Eligibility study to list the mountain on the National Register of Historic Places, Mount Graham studies from Arizona State museum, and many more.¹⁰⁴

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As anthropologist Alfonso Ortiz once wrote, “sacred mountains and other high holy places represent the largest single category of sacred sites that Indian people wish to protect.”¹⁰⁵ In 1981, author Frank Waters, the “Grandfather of Southwestern Literature” who through the publication of his novel, *The Man Who Killed the Deer*, helped support the return of Taos Blue Lake to the Taos Pueblo in 1970, wrote *Mountain Dialogues*. As Waters noted in a chapter titled “Sacred Mountains of the World,” all over the world there are sacred locations—places where people can observe the “intimate relationship between the forces of nature around them, the forests and streams, the mountains and stars.”¹⁰⁶ These places include El Cuchillo, Mount Tecate (Cuchama), Kailas, Omei, and Arunachala.¹⁰⁷ Mount Graham is also one of those unique, sacred places.

It is clear that the Indigenous communities are upset everywhere by the ecological and spiritual destruction and violence to which they have been witnesses. This is especially true in Arizona where sacred peaks and lands are constantly commandeered for one use of another, including uranium, coal, and salt mining, and scientific research,

Federal Indian Policy and the Beginnings of the Reservation System, 1846-51 (Philadelphia: Temple University Press, 1975).

¹⁰⁴ U.S. Human Rights Network CERD Working Group on Indigenous Peoples, “Response to the Periodic Report of the United States to the United Nations Committee on the Elimination of Racial Discrimination,” Feb 2008, www.ushrnetwork.org/files/ushrn/images/linkfiles/CERD/5_Indigenous%20Peoples.pdf, accessed 18 Apr 2009.

¹⁰⁵ Alfonso Ortiz, “American Indian Religious Freedom: First People and the First Amendment,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), vol. 19, no. 4 (Winter 1996). See other important articles in this special issue by Jack F. Trope and Elizabeth Brandt, among others. Jack F. Trope, “Existing Federal Law and the Protection of Sacred Sites: Possibilities and Limitations,” and Elizabeth A. Brandt, “The Fight for *dzil nchaa si’an*, Mount Graham: Apaches and Astrophysical Development in Arizona,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), vol. 19, no. 4 (Winter 1996), 50-57. See also, Emily Cousins, “Mountains Made Alive: Native American Relationships with Sacred Land,” *Cross Currents*, vol. 46, Winter 96/97.

¹⁰⁶ Frank Waters, *Mountain Dialogues* (Athens, OH: Sage/Swallow Press, Ohio University Press, 1981), 83.

¹⁰⁷ Waters, *Mountain Dialogues*, 84.

recreation, and water acquisition. Many Indians will say that they are not acting “radical” when they oppose such development or destruction of place. But as they point out, the truth is that because the greater U.S. society has forgotten so much of its ethics and values—especially regarding family, health, and education—anything that Indian people do to reclaim lost ground or stand up and say, “No, we will not tolerate the actions of the church, big businesses, or the government,” appears as radical acts. When, in a sense, all Indians hope to show is that all of the traits of organized religion, greed, and traditional politicking are not the “Indian way.” There is a strong desire on the part of the *Diné* (Navajo), Western Apache, and the Pascue Yaqui—whose tribal lands span the length of the State of Arizona, among many other tribes in Arizona, to get “back to the basics,” to regain the “Indian way.” Their struggles are real. Their desires are extremely genuine. Their persistence is unmatched and unyielding.¹⁰⁸

One way to destroy a sacred place or Indigenous peoples’ connections to the land, especially mountains, is to promote and then hide behind technological and scientific advancement as an agenda to gain access. Indeed, big science occupies the mountaintops of several better known and most studied sacred places. Several mountains in the U.S. are home to astronomical observatory complexes. Telescopes sit on top of the following notable sacred mountains: Mauna Kea in Hawaii (more than 12 instruments), as well as on Kitt Peak (26 total) and Mount Graham (3 total) in Arizona.¹⁰⁹ Unfortunately, the parallels between Mauna Kea, Kitt Peak, and Mount Graham are numerous and show that the battle between astronomers and their allies, against Apaches and their allies, is getting played out in multiple places and in multiple times. Indigenous peoples and their environmentalist allies fight against astronomers who are always seeking to expand the number of observatories on the peaks of these mountains.¹¹⁰ Astronomers do not even have to regularly see the environmental and cultural impacts of their studies since they do

¹⁰⁸ Angel Nosie to author, personal communication, 2 Aug 2003; representatives from Save the Peaks Coalition to author, personal communications, 2 Aug 2003. See the film, *The Snowbowl Effect*.

¹⁰⁹ See David Nolan, “The threat is out there: More than 100,000 asteroids hurtle past our planet, but only one—that we know of—may hit us in the next 30 years,” *Popular Mechanics*, Dec 2006, 82-87.

¹¹⁰ See “In Focus” column, “Seeking Common Ground: Building a New Generation of Gargantuan Telescopes Gets Mired in Environmental and Native Cultural Issues,” editorial, *Scientific American* (Jun 1999), www.sciam.com/1999/0799issue/0799infocus.html, accessed 29 Jul 1999.

not need to go to the mountain to conduct research. They can access data in real time from Earth-based telescopes over computer networks and are therefore absentee astronomers who can do their work from afar.¹¹¹ This dissertation deals almost entirely with this type of threat to Indigenous sacred places, but focuses on Mount Graham.¹¹²

The parallels between Mount Graham and Mauna Kea, for example, are many. In the film *Mauna Kea: Temple Under Siege* (which includes a section on Mount Graham), Manu Aluli Meyer said, “Mountains [like Mauna Kea] inspire us fundamentally. They are not just a physical element in our ‘*Āina*. They are a way of behaving. They teach us how to live.” An elder native Hawaiian named Marie Solomon said, “So many things are happening in Mauna Kea that [are] not right—not right for us. Not right for the ‘*Āina* [land].” Leina’ala McCord stated, “It’s supposed to be undisturbed by mankind.” Most significantly, Manu Aluli Meyer noted, “It [Mauna Kea, as fought over by astronomers and native Hawaiians] is a perfect example of clashing cosmologies. Perfect.” The narrator of the film asks, “In this world of space exploration, is there space for our sacred landscapes?” Like Mount Graham is for Apaches, Mauna Kea is an ancestor to the people of Hawaii and a source of water, stone tools, and spiritual power; home to various gods, endangered endemic animals, and plants; and makes its own climate. Mauna Kea is a source of knowledge, some of which native Hawaiians are relearning. Like Mount Graham, the telescope complex on Mauna Kea is visible from miles away. Also like Mount Graham, no structures are to be built on the top; the summit is the temple.

¹¹¹ Florence Olsen, “Project Brings High-Speed Network to Latin America,” *The Chronicle of Higher Education*, 8 Sep 2000; Florence Olsen, “High-Speed Links Connect 2 Telescopes 7,000 Miles Apart—and the Astronomers Who Use Them,” *The Chronicle of Higher Education*, 24 Oct 2002.

¹¹² Regarding sacred mountains and the occupation of such places by astronomers, see Puhipau and Joan Lander, dir., *Mauna Kea: Temple Under Siege* (Na ‘alehu, HI: Nā Maka o ka ‘Āina, 2005); Jeffrey Selingo, “Astronomers, in Search of the Best Views, Confront History and Politics in Hawaii: Should science, money, or ethnic heritage dictate who controls a mountain?” *The Chronicle of Higher Education*, 1 Jun 2001; David Tytell, “Sharing Mauna Kea: Understanding the Deep-Seated Conflict Between Two Passionate Groups Who Equally Cherish the Same Mountaintop” and “History Repeated: Sharing Mount Graham,” *Sky & Telescope*, Aug 2001, 40-48, 46; Anne Minard, “O’odham sue to halt scope construction on Kitt Peak,” *Arizona Daily Star* (Tucson), 24 Mar 2005; Joel Helfrich, Dwight Metzger, and Michael Nixon, “Native Tribes Struggle to Reclaim Sacred Sites,” *Pulse of the Twin Cities*, <http://pulsetc.com/article.php?sid=1865>, 1 Jun 2005; Tom Beal, “Changes on way for S. Ariz. observatory [Kitt Peak],” *Arizona Daily Star* (Tucson), 13 Mar 2010, http://www.azstarnet.com/news/local/education/college/article_ab119cdb-c70e-5e90-90e3-e32fb8915c87.html, accessed 13 Mar 2010.

According to Reynolds Kamakawiwo'ole, "Mauna Kea is a temple—a temple that no building should be on." In the 1970s, the struggle began on Mauna Kea, followed a decade later by the struggle for Mount Graham.¹¹³

Native Hawaiians, like Western Apaches, are also concerned with the loss of natural habitats on their mountain. Both groups use similar language to describe the mountains and the loss of the sacred, and to attempt to have non-indigenous people understand their struggles. Ali'i 'Aimoku Ali'i Sir Paul Neves said, "We really need to be looking at ... the loss of habitat but the loss of sacred landscape." Like Mount Graham and Kitt Peak, Mauna Kea is constantly threatened by a "new generation" of telescopes and various proposals for new telescope complexes. When Naunoa Thompson, a master navigator and Board of Regents member for the University of Hawaii, voted against additional telescope development on Mauna Kea, he stood alone. "From our perspective you are asking us to accept the desecration of our highest spirituality and our highest religion and then are asking us at the same time, 'Why don't we understand that?'" native Hawaiian activist Kealoha Piscoiotta said. Astronomers regularly assert that their "astronomical research" is as sacred as the mountain. Astronomers Fred Chaffee of the W.M. Keck Observatory said that the mountain is "sacred to native Hawaiians and it is sacred to astronomers." As the narrator noted, "Astronomers replied that the quest to understand humanity's place in our vast and mysterious cosmos is among the most sacred of pursuits. Astronomical research, some said, is not incompatible with the spiritual view of the mountain." "They are idealists whose moral compass has been confused by their ambitious dreams of scientific discovery," stated Tom Peek, about the astronomers. While astronomers search for the origins of life, native Hawaiians know that the mountain represents the place where ancestral ties to creation began. "How can you have balance and harmony when a lot of people in this room here know about our history?" queried Abraham Kamakawiwo'ole. Anthony Ako said, "If something is stolen, you can never have ownership of it." Mikahala Roy said, "The acts on this mountain represent terrorism to me." Pi'ilani Smith stated, "What you are asking is for the Hawaiian people

¹¹³ Puhipau and Lander, dir., *Mauna Kea*.

just to give it [Mauna Kea] up.”¹¹⁴ The parallels between Mount Graham and Mauna Kea are rooted in U.S. colonial endeavors since at least the mid to late nineteenth century, and, as in all sacred sites struggles, center around the use and ownership of the land.

As anti-astrophysical development activist Mark Lammers told UA President Manuel Pacheco in 1992, “Every land rights issue comes down to the American Indians’ reverence for the land, and their right to use it as they wish.”¹¹⁵ On October 11, 2002, the date formerly recognized as Columbus Day, human rights group Amnesty International released a report titled, “Americas: Indigenous peoples—Second-class citizens in the lands of their ancestors.” According to the report, the “Basic rights of indigenous communities, including the right to land ... are systemically violated.” Amnesty International “called on governments to take immediate and concrete actions to turn their rhetoric on multiculturalism and indigenous rights into reality.” The report pointed out that, “Across the region, large-scale projects for the construction of infrastructure or the extraction of natural resources on indigenous lands, threaten the communities’ livelihood and survival, and are being planned and carried out without real and transparent consultation.”¹¹⁶ For many activists and Indigenous peoples, Amnesty International’s study brings to mind the decade long struggle in Columbia between Occidental Petroleum and the U’wa indigenous tribe that ended on May 3, 2002, when Occidental announced its plans to abandon its controversial efforts to drill for oil.¹¹⁷ More close to home, the U.S. government has been pushing for some time to drill in the Arctic National Wildlife Refuge (ANWAR). Although those efforts are stymied for the moment, there is no guarantee that they will not come up again.

Clearly education is a solution to what is a complex problem. The Final Jeopardy! answer during an episode of the quiz show *Jeopardy!* in early December 2007 was “What is Mount Rushmore?” The game show’s host, Alex Trebek, had mentioned that the clue

¹¹⁴ Puhipau and Lander, dir., *Mauna Kea*.

¹¹⁵ Mark Lammers to Manuel Pacheco, letter, 24 Jun 1992, 1.

¹¹⁶ Amnesty International, Press Release, “Americas: Indigenous Peoples—Second-Class citizens in the lands of their ancestors,” <http://web.amnesty.org/library/print/ENGAMR010062002>, accessed 16 Nov 2003, or <http://asiapacific.amnesty.org/library/Index/ENGAMR010062002?open&of=ENG-399>.

¹¹⁷ *World Watch* Sep/Oct 2002, p. 9; See Jensen, *A Language Older Than Words*, pp. 277-290, and *Resource Rebels*.

was “The landmark site known to the Lakota as ‘Six Grandfathers’ was named this for a prominent lawyer.” What this writing represents is a continuation of the colonialism against native peoples that has existed in America since 1492. There is no reference to the fact that the very site of Mount Rushmore, the Black Hills, is sacred; that the federal government worked to bribe native peoples in the area to relinquish their rights to a place filled with resource riches; or that the Lakota have never accepted any money from the U.S. government for the Black Hills and continue to fight for their land in the present. The Lakota spiritual leader Frank Fools Crow once stated, “The Black Hills are sacred to the Lakota people. ... How can you expect us to sell our church...? We will never sell....”¹¹⁸ The answer on *Jeopardy!* uses the language “landmark” instead of “sacred” or “important,” most likely to tone down language that would more accurately describe the area. Admittedly, it is not the job of the *Jeopardy!* “clue team” to know the truth about Mount Rushmore and the Black Hills. However, their omission is indicative of the ways in which many Americans inadvertently perpetuate colonialism in the present. This is done all too often, especially with regards to Indigenous peoples, in ways that are not done to white European Americans.

As is evidenced by recent mainstream press articles regarding mountaintop removal mining—or “strip mining on steroids”—in Kentucky, Tennessee, Virginia, and especially West Virginia, there is an interest for reasons regarding labor, environmental, or land-rights issues, in fighting injustices.¹¹⁹ There is indeed an ethic in this country for social justice. As a result, Americans can relate to instances where a perceived or real injustice occurs. Americans also seem to understand the significance of the destruction or ruination of place, as evidenced by the outrage over homes built in the mountains of Tennessee that ruin the aesthetics or the collapse of the World Trade Center buildings, a place where many American pilgrims journey to connect with the sacred character of that

¹¹⁸ See Tom Charging Eagle and Ron Zeilinger, *Black Hills: Sacred Hills*, 4th ed. (Chamberlain, SD: Tipi Press, 2004), n.p.

¹¹⁹ See Abe Whaley, “Once Unique, Soon a Place Like Any Other: It’s heartbreaking to watch the Appalachia I love disappear under endless condos and cabins,” My Turn column, *Newsweek*, 14 Nov 2005, 13; John G. Mitchell, “When Mountains Move,” and Tim Appenzeller, “The High Cost of Cheap Coal,” *National Geographic*, March 2006.

location.¹²⁰ Americans are not blind to the significance of place. However, they are often willing to quickly brush aside the concerns of Native peoples by asking, “Can’t Indians share the land?” Or, “Is there a ‘middle ground?’” In asking these and other related questions, non-natives are able to instantly discount and belittle the beliefs, convictions, and struggles of others. As Kiowa author Momaday put it in “Disturbing the Spirits,”

To many Native Americans, the theft of what is sacred to our community stands as the greatest of all crimes perpetrated upon us. Wounds to the spirit are considered eminently more serious than wounds to the body. Indians have endured massacres, alcoholism, disease, poverty. The desecration of our spiritual life has been no less an assault. [Yet] Native Americans will resist. They feel they must. At stake is their identity, their dignity, and their spirit.¹²¹

Because Euro-Americans expect to find a “middle ground” and because they expect Indians to share the land, a conflict often arises. As with all of history, land (property) is at the core of the struggle for sacred places.

Mount Graham: It’s About Land, Stupid¹²²

This dissertation examines the struggle over a mountain in Arizona—not only a sacred place to the Western Apache people, but also a sacred mountain to astronomers and Jesuit priests. At the heart of the struggle for Mount Graham is land. Indeed, more than anything, the struggle for Indigenous sacred places is always about land. “We’ve lost ninety-eight percent of our land base, so what’s wrong with keeping our sacred sites from

¹²⁰ The number of references to the World Trade Center and “sacred” are too numerous to detail here. See, for example, Cora Angier Sowa, “Epilogue to ‘Holy Places’: The World Trade Center as a Mythic Place,” <http://minervaclassics.com/wtcholy.htm>, accessed 3 Apr 2010; “Sacred Ground,” *Frontline* (PBS), <http://www.pbs.org/wgbh/pages/frontline/shows/sacred/designs>, accessed 3 Apr 2010; Carolyn Maloney and Christopher Shays, “Maloney, Shays Urge World Trade Center Historic Bill Study,” Press Release, 17 Nov 2003.

¹²¹ N. Scott Momaday, “Disturbing the Spirits,” Letter to the Editor, *New York Times*, vol. 145, 2 Nov 1996: 19.

¹²² Simon Worrall, “‘I Danced for My Land’: The railroad opens new worlds for archaeologists and Aborigines alike,” *Smithsonian*, Jan 2006, 99 (see also, Simon Worrall, “Full Speed Ahead: A railroad, finally, crosses Australia’s vast interior—linking not only the continent’s south with its north, but also its past to its future,” *Smithsonian*, Jan 2006, 90-98, esp. 94, 96); K. J. Scotta, “What is sacred to Apache must be defined by Apache,” *Tucson Citizen*, 3 Apr 1992; Colman McCarthy, “Vatican project bulldozes Apache religion,” *The Seattle Times*, 5 May 1992. The bibliography of works that briefly mention Mount Graham is voluminous and indicates that scholars, activists, and journalists have realized that there is a magnificent story in the struggle for Mount Graham. Derrick Jensen, *A Language Older Than Words* (2000; White River Junction, VT: Chelsea Green Publishing Company, 2004), 177-184; LaDuke *Recovering the Sacred*, esp. 19-32; Deloria, *God is Red*, 2nd ed., 279.

development?” asked American Indian educator, Henrietta Mann.¹²³ In 1991, Oren Lyons, Chief of the Onondaga Nation Council of Chiefs, put it best when he said, in “Sovereignty and the Natural World Economy”: “Land is the issue, land has always been the issue. We cannot trade our jurisdiction over lands and territories for money.”¹²⁴ According to Deloria, only those “who have so frequented the place as to know its values and wonders will be able to speak for the entire ecological community.” As pointed out by Deloria, “Ecology reflects the land ethic; and Aldo Leopold wrote in *A Sand County Almanac* (1949), ‘The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land.’”¹²⁵ Put simply—although it is not a simple matter—the struggle for the mountain at the center of this dissertation, Mount Graham, is a struggle for land and everything that accompanies the land.

In his December 1992 address to the United Nations, Chief Lyons addressed the problem of colonialism: “We must try to reach an agreement on a more level playing field that allows us to, at least, a chance for survival.”¹²⁶ The foundation on which the current struggle over Mount Graham rests is rooted in the historical interactions between the Spanish and Apaches in the Southwest, the relationships between the U.S. government and the Apaches at the end of the nineteenth century, and the growth of the post World War II university system in the United States. Indeed, “the rapacity of modern corporatism, of which the modern university and scientific community are an integral part,” according to environmental writer Gregory McNamee, has harmed the Apache people by adding to and supporting a colonial legacy at the center of the struggle for their sacred Mount Graham. Mount Graham has been especially threatened since the early

¹²³ Valerie Taliman, “Sacred Landscapes: To Developers They’re Just Piles of Rocks. To Native Americans, They’re Places of Worship,” *Sierra Magazine*, Nov/Dec 2002, 40.

¹²⁴ Oren Lyons, “Address to the Aboriginal Law Association Conference, McGill University (1991),” in Scott J. Hammond, Kevin R. Hardwick, and Howard L. Lubert, eds., *Classics of American Political and Constitutional Thought*, vol. 2 (Indianapolis: Hackett Publishing Co., 2007), 872. See also, Oren Lyons, “Sovereignty and the Natural World Economy (1991),” in Bob Blaisdell, ed., *Great Speeches By Native Americans* (Mineola, NY: Dover Publications, 2000).

¹²⁵ Deloria, *God is Red*, 2nd ed., 296.

¹²⁶ “Chief Oren Lyons’ December 1992 Address to the United Nations,” <http://www.kahonwes.com/iroquois/document2.html>, accessed 3 Apr 2010.

1980s “by the first-world powers of science, government, and academia, an unholy trinity that serves commerce to produce the earth’s larger losses,” stated McNamee.¹²⁷ This story, the struggle over a mountain in Arizona, is one of extremely unequal power relations: \$120 million telescopes versus the San Carlos Apache Tribe that is \$600,000 in debt. For Western Apaches, the struggle for their sacred mountain begins in the nineteenth century.

In the early 1870s, the U.S. government established an Apache Reservation in Arizona. The reservation was large and included Mount Graham and what are now the San Carlos and White Mountain Apache reservations. However, between 1873 and 1902, a series of Executive Orders reduced the size of the reservation by about two-thirds of its normal size, created two large, separate Western Apache reservations, and turned over a large amount of land to public domain. Soon after 1873, Mount Graham sat outside the borders of the reservation and timber harvesting began on the mountain. Mormon communities who took over the areas surrounding the mountain drastically altered the agriculture of the region by growing alfalfa and cotton, two water-intensive crops, instead of corn that had historically been grown near Mount Graham. In 1902, Mount Graham became a national forest.

By the 1950s, Tucson, Arizona, gained recognition as an astronomy center. Tucson had been a center of the U.S. national defense program—bomb silos surrounded the city—during World War II, but after the war the UA added astronomers to its faculty, and the federal National Optical Astronomy Observatory located on campus. By 1988, UA, about two hours away from Mount Graham in Tucson, had been long known as a center for astronomical research. Because of its proximity to the mountain, because of its research partners (Max Planck Institute and Vatican, as well as other institutions that later pulled out of the project), because they had been turned away from the San Francisco Peaks near Flagstaff and Mount Baldy on the White Mountain Apache Reservation, and because they perceived that the mountain was a good place for astronomy, UA chose Mount Graham as the best location for them to conduct their research and exhibit their

¹²⁷ Gregory McNamee, “Mountain Under Heavens,” *terrain.org: A Journal of the Built and Natural Environments*, no. 8 (Autumn 2000), <http://www.terrain.org/articles/8/mcnamee.htm>.

telescope mirror-building technology.¹²⁸ UA proposed to build dozens of telescopes on Mount Graham, despite USFWS biologist's comments that the project would jeopardize the habitat and survival of the Mount Graham red squirrel, a federally listed endangered species. Nonetheless, because UA had already been turned away from other locations, they turned to Mount Graham, part of the National Forest system. Since UA sent a postcard to the San Carlos Apache Tribe informing them of their desire to place telescopes on Mount Graham and received no response, they felt they were just in moving forward with their project. (Years later the postcard turned up at the Bureau of Indian Affairs in Phoenix.) UA, despite their claims otherwise, knew that the Western Apaches would block their efforts and so in 1988 secured a congressional exception from all U.S. environmental and cultural laws, unprecedented in non-wartime U.S. history, and began building three telescopes on the mountain.¹²⁹

¹²⁸ Wendsler Nosie, Sr. (Apaches for Cultural Preservation) to Mark Yudof (President, University of Minnesota), letter, 18 Dec 2001.

¹²⁹ The 1988 Arizona-Idaho bill, which gave UA a foothold on Mount Graham, was the first legislation involving an endangered species that was exempted from the National Environmental Protection Act. The snail darter case is extremely similar to the Mount Graham case; in 1979, Congress exempted the Tennessee Valley Authority's Tellico Dam project on the Little Tennessee River from the Endangered Species Act.



THE SEATTLE TIMES

Map of Arizona, showing the location of Mount Graham.

Throughout this dissertation, I argue the following: Rather than seeking to expand knowledge or improve the human condition, the University of Arizona and its research partners have pursued prestige and high national rankings for their institutions. As a result, they have used questionable means to appropriate land and resources from Native Americans and have permanently altered a unique ecosystem. This dissertation shows how these actions replicate earlier efforts—including those of the Spanish in the 1600s and the United States government in the 1800s—to colonize Mount Graham and exploit its indigenous residents and the mountain’s resources.

I have organized this dissertation around four major “stakeholders” who have in interest in Mount Graham—Western Apache tribes, environmentalists, astronomers, and the Vatican. I also discuss a fifth stakeholder, the University of Minnesota, because of

first-hand experiences I had in Minneapolis as astronomers and university officials decided to join the Mount Graham telescope project. Although I go back before 1871 to describe what happened to the mountain as a result of the creation of an “Apache reservation,” I focus my study on the period between the 1960s/70s, when significant environmental and cultural laws were created, and UA astronomers selected Mount Graham, and 2002, when the mountain was deemed eligible for listing on the national register as traditional cultural property to the Western Apache people. I end my study in October 2002 when both the University of Virginia and the University of Minnesota joined the telescope project.

Chapter 1 looks at Apache use of Mount Graham prior to and during the early years of the reservation era. I highlight Apache land use during the pre-colonial, Spanish colonial, and early reservation periods and show that Apaches maintained a long-term use of the mountain, despite logging, forest management policies, and water rights abuses from farmers. The connection between time in one place and land is not insignificant. I look briefly at the period between 1871 and the 1970s, especially executive orders and their function in U.S. history, as well as the early years of the reservation, President Grant’s role in this process of reservation making, and the military throughout the 1870s and into the early years of the twentieth century. By also looking at Determination of Eligibility studies for Mount Graham to the National Register, countless newspaper articles, the vast homeland of the Apache people, and Apache testimony, I demonstrate that Apache ways of knowing are just as impressive as western scientific knowledge and that Apaches have maintained a long and lasting connection with their sacred *dzil nchaa si’an* (Mount Graham). Above all else, this chapter challenges claims made by astronomers and their allies that Mount Graham is not a sacred place to the Western Apache people and that Apaches did not use or live in the mountains. In fact, many proponents of astrophysical development have tried to rewrite history to remove the Apache’s claims to ownership of Mount Graham. This chapter documents a large number of instances in which white visitors to the Gila River Valley and Mount Graham described the Apache use and land-based spiritual connections to the area.

Sacred sites are often ecologically unique places. Power is derived from the natural character of these places. I devote an entire chapter to the mountain's unique ecological characteristics, including its old-growth Hudsonian boreal forest, its function as a Galapagos-like "sky island," and the endangered Mount Graham Red Squirrels (species # 050811) that inhabit the summit, as well as the effects of approximately 100 years of human-related activities, including timber harvesting and recreation. I briefly examine environmental, cultural, and historical preservation legislation since the 1960s. In this chapter, titled "They Paved Paradise and Put Up a Telescope," I utilize environmental impact statements, consult with well-known biologists who have worked on Mount Graham, describe data regarding forest fires, tree-ring studies, and yearly census counts for the Mount Graham Red Squirrel, and explain the countless materials that discuss the unique ecological characteristics of Mount Graham. As a result of UA's actions, members of various American Indian communities and the conservation community came together "in the largest coalition ever formed in the United States," according to biologist and anthropologist Peter Warshall. Trust was established "between these two groups, who ... work[ed] together often in the future ... [and] helped organize the protection of cultural rights and biodiversity on an international level or one specific location, the beginning of a new stage in grass-roots globalism."¹³⁰ UA acted like a colonial power. As it attacked the mountain, it followed a pattern of colonialism that used history and myth to appropriate resources.

In the second section of this dissertation, I investigate "current" (1970s to 2002) debates regarding the Mount Graham telescope project by examining the actions of UA astronomers, officials, and supporters of astrophysical development. Chapter 3, "Sacrificed for Science," begins in the late 1970s when various astronomical institutions began to look for a site on which to conduct research with a new, large telescope. I argue that the science of astronomy in this case has more to do with money and especially politics than it does with the advancement of scientific and technological knowledge. I

¹³⁰ Peter Warshall, "Finding Your Animal Ally: How a Squirrel Led Me to Congress and the Vatican," *voices ... Articles from Conference Visionaries: Nature, Culture & Spirit*, www.bioneers.org/voices/01nature_culture/peter_warshall.html, accessed 13 Nov 2003.

focus upon scientists at various universities, especially the University of Arizona, who assert that the mountain is an ideal location for astronomy. Chapter 4, “Moral High Ground,” analyzes the role of the Vatican, a partner in the telescope project; the “Pope scope,” as the Vatican’s telescope is affectionately called; and Jesuit astronomers who use the mountain to search for answers to theological questions. The Vatican’s participation complicates “science” versus “religion” debates. Chapter 5 is a case study that considers the actions of one research partner, the University of Minnesota, and its efforts to join the telescope project in 2001-2002. This chapter critiques Minnesota’s involvement in the controversy by looking at the evidence and arguments made for and against joining the telescope project since 2001.

In the conclusion, “Return the Sacred,” I review the arguments and evidence presented in this dissertation. I look especially at the events surrounding Mount Graham since 2002. Tying together the history and struggles for Mount Graham with some sound public policy, I posit a plan for Mount Graham that would be supported by most Apaches. In fact, it is a plan that is supported in resolutions by the White Mountain Apache Tribe. By considering briefly at least five examples of U.S. government lands that were returned to native peoples and where desecration of sacred landscapes was ultimately prohibited at Boboquivari Peak in Arizona, Taos Blue Lake in New Mexico, Mount Adams in Washington State, Kaho’olawe in Hawaii, and Zuni Salt Lake in New Mexico, I suggest a way forward.

This dissertation describes one example of the colonial imperialism that takes place every day. Both inside and outside the borders of the United States, governments, developers, religious officials, and recreationists are running amok of sacred places. Whether sacred sites are at risk because of recreation (Spirit Mountain and Devil’s Tower), “progress” (Shasta Dam and Coldwater Spring), energy interests (Yucca Mountain and Indian Pass), or science and technology (Mauna Kea and Mount Graham), the issue remains: American Indians must struggle to protect what they know is sacred against the moneyed interests of corporations, universities, and other institutions. But sacred lands have been under attack for a long time in the Americas. When the Spanish

arrived in New Mexico in the sixteenth century, they interrupted sacred ceremonies by the Pueblo people.¹³¹ I attempt to write the history of one place—the history of a mountain that has often been referred to as “an oasis in the middle of the desert.”

The Apache peoples’ struggle for Mount Graham is long, convoluted, and ongoing. The story of Mount Graham is a dark spot on American legal history, environmental history, US-Indian relations, higher education, astronomy, but most significantly the American conscience. It did not have to be this way. It is time to acknowledge past wrongs, apologize for past and present wrongdoing, and take steps to create a postcolonial future for the U.S. It can only be achieved by understanding how we got to this point. As Iktomi Lila Sica stated in the 1930s in *America Needs Indians!*, “The Past is clear and shameful. The Present is hazy and doubtful. The Future depends on the degree of Honor of America and the co-operation of the Indian.”¹³² This document is an effort to begin a process of healing. Indeed, it is anticipated that the creation of this testimony on Mount Graham will ideally benefit both the Western Apaches and the University of Arizona, and any group involved with the Mount Graham issue. In the long term, the dissertation will be a benefit to the University of Arizona and its research partners. It will allow them to act with greater integrity as a public institution representing all of the citizens of Arizona. Nonetheless, it is essential for all parties involved with Mount Graham and the Mount Graham International Observatory that we forge new links between the local communities and the University of Arizona to begin the processes of healing and forgiveness, as well as justice, peace, and land restoration.

Any loss of sacred, no matter where it occurs, makes all humans poor. As Momaday put it, “I think that the greatest deprivation that the Native American suffers

¹³¹ See comments by anthropologist Alfonso Ortiz in Diane Reyna, dir., *Surviving Columbus: The Story of the Pueblo People*, PBS/The Institute of American Indian Arts, 1992. A similar story played out in 1532 when Spanish conquistadors arrived in the holy city of Cajamarca in Peru. See Jared Diamond, “Collision at Cajamarca: Why the Inca Emperor Atahualpa did not capture King Charles I of Spain,” in *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W. W. Norton & Company, 1997), 67-82.

¹³² Iktomi Lila Sica, *America Needs Indians!* (Denver: Bradford-Robinson, 1937), 414.

today is the theft of the sacred, that it is not reaching down to the children as it always has.”¹³³

¹³³ “New Perspectives on the West,” <http://www.pbs.org/weta/thewest/program/producers/momaday.htm>, accessed 3 Apr 2010.

For a colonized people, the most essential value, because it is the most meaningful, is first and foremost the land: the land, which will bring them bread and, naturally, dignity.¹³⁴

—Frantz Fanon

There was no phase of Apache life set apart from the consciousness that it must be done in a holy manner, and the result was perhaps the most complex religious system of all the Indians in North America.¹³⁵

—James L. Haley

¹³⁴ Frantz Fanon, "On Violence," *The Wretched of the Earth* (1961; New York: Grove Press, 2004), 9.

¹³⁵ James L. Haley, *Apaches: A History and Culture Portrait* (Garden City, NY: Doubleday, 1981), 68.

SACRED SITES, APACHE RIGHTS

Sense of Place & Land Connections

Medical doctors are taught that people first lose the ability to keep track of *time*—as opposed to a patient’s orientation to people or *place*—as they age. That means that humans are more organically and even neurologically oriented to place or location. Physicians also know that the limbic system, the system that manages a person’s emotional states, supports a variety of functions including long term memory and sense of smell, and perhaps even governs spiritual states, is connected with all other systems in the brain. There is a special area of the brain for recognition of faces—basically spatial patterns. So humans surely must also recognize patterns in land and are deeply oriented to these spaces. After all, humans are continuously traveling in time. No human can stop that. Place indeed offers permanence both in the physical sense and in the neurological sense, since it is orientation to space that persists longer than time, and humans are deeply emotionally rooted to this orientation. Hence, many wars have been and are fought over land. The struggle for land and a specific land mass is at the heart of this story.

Land offers permanence to a culture and a people. Land orients humans organically. It also connects them to something more, as countless scholars and their informants have pointed out.¹³⁶ Works by numerous geographers and anthropologists, especially seminal studies by Yi-Fu Tuan and Alfonso Ortiz (San Juan Pueblo), help us understand the voluminous literature on place theory.¹³⁷ Western Apaches in this study have lived in the Southwest since “time immemorial,” as they put it, and are especially well suited to argue for land-spirit-human connections. Indeed, the length of time that a

¹³⁶ See Sam D. Gill, “Religious Forms and Themes,” in *America in 1492: The World of the Indian Peoples Before the Arrival of Columbus* (1991; New York: Vintage Books, 1993), 278.

¹³⁷ Among many books, see Yi-Fu Tuan, *Topophilia: A Study of Environmental Perception, Attitudes, and Values* (Englewood Cliffs: Prentice Hall, 1974); Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977); Yi-Fu Tuan, *Place, Art, and Self* (Santa Fe, NM: University of Virginia Press, 2004); Yi-Fu Tuan, “Sense of Place: Its Relationship to Self and Time,” Ralph H. Brown Memorial Lecture, University of Minnesota, 19 Apr 2002 (Thanks to Tuan for kindly providing me with a copy of his paper); Alfonso Ortiz, *The Tewa World: Space, Time, Being, and Becoming in a Pueblo Society* (Chicago: The University of Chicago Press, 1969); Richard V. Francaviglia, *Believing in Place: A Spiritual Geography of the Great Basin* (Reno: University of Nevada Press, 2003).

group is linked to a particular place is of utmost importance to this chapter. Works by anthropologist Keith Basso on Western Apache place-names are especially useful to understanding Apache connections to land.¹³⁸ Apaches tell numerous stories that exemplify some of these concepts and dynamics. In fact, almost all history, especially regarding Indigenous communities, is about the appropriation, occupation, dispossession, and use of “property,” or land. The struggle for Mount Graham, in particular, about which this dissertation concerns itself, is about health—the health of the land, the health of the mountain, and the spiritual, mental and physical health of the people, all of which are related to land. Above all else, the great efforts made by Apaches on behalf of one mountain are about Indigenous knowledge and the power of place, especially sacred places, and their role in maintaining balance and social order among a people.¹³⁹

Nick Thompson, a Western Apache elder and longtime teacher and informant of Basso, had the following to say about place and its effect on behavior through “hunting with stories”:

It’s hard to keep on living right. Many things jump out at you and block your way. But you won’t forget that story. You’re going to see the place where it happened, maybe every day if it’s nearby and close to Cibecue [Arizona]. If you don’t see it, you’re going to hear its name and see it in your mind. It doesn’t matter if you get old—that place will keep on stalking you like the one who shot you with the story. Maybe that person will die. Even so, that place will keep on stalking you. It’s like that person is still alive.

Even if we go far away from here to some big city, places around here keep stalking us. If you live wrong, you will hear the names and see the places in your mind. They keep on stalking you, even if you go across oceans. The names of all these places are good. They make you remember how to live right, so you want to replace yourself again.¹⁴⁰

As Basso puts it, “After stories and storytellers have served this beneficial purpose,” of maintaining control over moral, human behavior, “features of the physical landscape take

¹³⁸ Keith H. Basso, *Wisdom Sits in Places: Landscape and Language Among the Western Apache* (Albuquerque: University of New Mexico Press, 1996). For a brief discussion of Basso’s work, see Peter Nabokov, *Where the Lightning Strikes: The Lives of American Indian Sacred Places* (New York: Viking, 2006), 106-110, 315.

¹³⁹ Basso, *Wisdom Sits in Places*, 156, fn. 11.

¹⁴⁰ Basso, *Wisdom Sits in Places*, 58-59. Emphasis in original. See also Gill, “Religious Forms and Themes,” 284.

over and perpetuate it.” According to Basso, “Mountains and arroyos step in symbolically for grandmothers and uncles,” a pattern that is corroborated in statements by Apaches fighting for Mount Graham who see the mountain as a relative teaching them how to behave and act right.¹⁴¹

This chapter shows that Apaches have had long-standing connections to the land; that the mountains of the Southwest, especially Mount Graham, have played an important role in feeding the spiritual, mental, and physical health of Apaches; and that despite colonization by Spanish, Mexican, and American forces, the Apaches have continued to resist and struggle against dominant cultures in an effort to protect one of their sacred places, *dzil nchaa si'an* (Mount Graham). Furthermore, the Apache knowledge of the land, of sacred landscapes, and of the universe is just as significant—if not, more so—than the knowledge of outsiders—whether soldiers, early anthropologists and historians, Indian agents, politicians, or astronomers. In fact, Apache ways of knowing, their “life-way,” encompasses an astounding amount of knowledge about plants and animals, stars, human nature, spirituality, and the area of the world in which they live—indeed, the universe.¹⁴² Apaches acquired, maintained, and built upon systems of knowledge regarding, for example, their environment, astronomy, and spirituality. As stated by Basso, “beliefs and ideas [constitute a] shared ‘knowledge’ that the Apache have about their universe.”¹⁴³ And yet, “On the eve of Columbus’s landing in the New World in

¹⁴¹ Basso, *Wisdom Sits in Places*, 60.

¹⁴² Morris E. Opler, *An Apache Life-Way: The Economic, Social, and Religious Institutions of the Chiricahua Indians* (1941; Lincoln: University of Nebraska Press, 1996), esp. 312-313. See also, Grenville Goodwin, *The Social Organization of the Western Apache* (Chicago: University of Chicago Press, 1942). For general histories of Western Apache people, see, among others, Haley, *Apaches*; D. Worcester, *The Apaches: Eagles of the Southwest* (Norman: University of Oklahoma Press, 1979); Dan L. Thrapp, *The Conquest of Apacheria* (Norman: University of Oklahoma Press, 1967).

¹⁴³ Keith H. Basso, “Western Apache Witchcraft,” *Anthropological Papers of the University of Arizona 15* (Tucson: University of Arizona Press, 1969), 1. For general information about Indigenous star knowledge and astronomical observation, and native science, technology, and ways of knowing, see also, Clara Sue Kidwell, “Native Knowledge in the Americas,” *Osiris*, vol. 1, 2nd Series (1985): 209-228; Clara Sue Kidwell, “Systems of Knowledge,” in *America in 1492: The World of the Indian Peoples Before the Arrival of Columbus* (1991; New York: Vintage Books, 1993), 369-403; Gregory Cajete, *Native Science: Natural Laws of Interdependence* (Santa Fe: Clear Light Publishers, 2000), esp. 78. The literature on native star myths, constellations, astronomy, ethnoastronomy, and archaeoastronomy, is large and growing. About Apaches, see Claire R. Farrer, *Living Life’s Circle: Mescalero Apache Cosmology* (1991; Albuquerque: University of New Mexico, 1994).

1492,” according to historian Clara Sue Kidwell, “invaders from the Old World ... dismissed as pagan superstition the systems of knowledge that constituted the science of the Indians.”¹⁴⁴ Western Apaches, in particular, have a need to protect their sacred Mount Graham in order not only to maintain their health but also to maintain a home for their ancestors and the Mountain Spirits that reside in the mountain. As Thompson once told Basso,

If you hurt one of those holy places, it’s very, very bad. You will hurt yourself if you do that. You must always show respect and take care of those holy places. Each one helps us in some way. We depend on them to help us live right, to live the way we should. So we leave them alone except when we really need them. We pray to them to help us. If we hurt them they would stop helping us—and then we would only know trouble.¹⁴⁵

The Western Apache struggle is an effort to regain and maintain health, safety, knowledge, and order in the universe.¹⁴⁶

This chapter concerns itself with territories and places sacred to the Western Apache. Sacredness is in the collective mind of a culture. Just as the physical brain will not reveal the contents of the mind, thus also an external, voyeuristic perspective on sacred places will not reveal the sacredness within the collective mind of the Western Apaches. But without disclosing the sacred knowledge that scholars such as Basso possess or that Apaches maintain, I am especially interested in one of the sacred mountain ranges that make up the traditional homeland of the Western Apache people.¹⁴⁷ Just as Ortiz pointed out with other indigenous peoples, despite obstacles, the Western Apache maintain “the sacred mountains ... in the four directions.”¹⁴⁸ As much as

¹⁴⁴ Kidwell, “Systems of Knowledge,” 403.

¹⁴⁵ Keith Hamilton Basso, “Declaration of Keith Basso in Support of a Preliminary Injunction on 9 April 1992” for *Apache Survival Coalition v. United States of America* 21 F3d 895 (9th Cir 1994) (Basso’s comments are not contained in the appellate reporter), 5.

¹⁴⁶ Ramon Riley (Cultural Resources Director, White Mountain Apache Tribe) to Gordon Gee (President, Ohio State University), letter, 8 Jan 1997.

¹⁴⁷ See Basso’s comments in the film by Stéphane Goël, dir., *Le Garçon S’Appelait Apache* (This Boy’s Name was Apache) (Climage and Ardèche Images Production, 1995). Apache people have often been “burned” for disclosing sacred knowledge to non-natives and are reluctant to share information with outsiders. I am following the lead of various anthropologists, including Basso, by being respectful of Western Apaches who do not want sacred knowledge released in this setting.

¹⁴⁸ Ortiz, *The Tewa World*, xiii, but also xvi, 14-28.

possible, this chapter is about an area of present-day Arizona; the Western Apaches who have lived in this area, died in this area, and struggled to protect the land that they know is sacred; the biography of one sacred place, Mount Graham; and the struggle for this mountain.

Colonialism, especially since the early nineteenth century, has played a large role in Western Apache lived experiences. More than from Spanish or Mexican colonizers, the U.S. and all of the interests that it represents, had a far greater and lasting impact on the environment, on the Apaches, and on their sacred landscape and geography, particularly Mount Graham, than any colonial power that came earlier. Since at least 1871, when Congress halted U.S.-Indian treaty making, the Western Apaches were placed on reservations and the mountain was eventually placed outside of reservation boundaries. Throughout this time, Western Apache people have been trying to regain their sacred “social order.”¹⁴⁹ Just as Indians cannot pray when their sacred materials are in museums, they also cannot pray when their sacred places are occupied by colonial forces and their representatives. At the end of the nineteenth century, Western Apaches had no idea about “What would happen if the rules were broken, or how to repair the broken order if it occurred.”¹⁵⁰ They do now. The struggle for Mount Graham is an effort to combat colonialism, resist the dominant culture, and regain a missing piece of a land base puzzle so that healing, misplaced knowledge, and social order can return to the Western Apache people.

This chapter draws attention to the large amount of documentation to support Apache ownership of the land. The evidence about Apaches and their relationships to specific mountains, especially Mount Graham, is large and found in many places. This chapter is an effort to document those connections in order to combat assertions made since the early 1980s by the University of Arizona (UA), affiliated institutions such as the Vatican, and various proponents of planned astrophysical development that deny Apache ownership, spiritual connections, and claims to Mount Graham. Indeed, it is important to

¹⁴⁹ Ortiz, *The Tewa World*, 4. For an excellent timeline for Apache history, especially regarding Mount Graham, see John R. Welch, “A *dzil nchaa si’an* Chronology” (updated 20 Jan 2008, photocopy), 1-75, esp. 6.

¹⁵⁰ Gill, “Religious Forms and Themes,” 282.

consistently and repeatedly document an Apache presence on Mount Graham because UA has at various points in the recent past attempted to deny this reality. Here I argue not with historians or historiography but with astronomers, Jesuit priests, politicians, and bureaucrats, among others.

Mythmaking and historical revisionism are weapons, in this case. Why would some groups, including some individual Apaches, create the myth that Mount Graham is not spiritually significant for Apaches? It is clear that UA and its research partners have tried to use history to disempower Indians. In 1992, Jesuit astronomer Father George Coyne, a chief Vatican-endorsed proponent of astrophysical development, stated that both he and the curator of ethnohistory at UA's Arizona State Museum "suggested there is little evidence historically that Mt. Graham is sacred to the San Carlos Apache."¹⁵¹ In other documents, Coyne asserted, "there is no clear documentary or archaeological evidence that indicates any continuous, permanent or extensive use of the summit of Mt. Graham by Apaches for seasonal dwellings, burial grounds, or religious rituals.... Apaches did not revere Mt. Graham as they did many other mountains in the surrounding region."¹⁵² Coyne requested that Apaches show him the physical structure to prove the mountain's sacredness. Jesuit priest and ethnohistorian Charles W. Polzer repeated many of Coyne's assertions and stated that Apaches did not use the mountain, while several UA faculty administrators fought a war against facts in the press.¹⁵³ Journalist Fergus Bordewich, in his book, *Killing the White Man's Indian*, proclaimed, "there is scant mention of Mount Graham in anthropological writings and almost no reference to it in historical literature."¹⁵⁴ Studies by the U.S. Forest Service echoed claims made by

¹⁵¹ George V. Coyne, "An Open Letter Particularly Addressed to the Non-Indian Members of the Apache Survival Coalition," 30 Apr 1992, 1.

¹⁵² George V. Coyne, The Vatican Observatory, affidavit, "Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples," 5 Mar 1992, <http://vaticanobservatory.org/indian.html> (revised version, 8 May 1997).

¹⁵³ Charles W. Polzer, S.J., affidavit, 6 Apr 1992. For example, see Michael A. Cusanovich, "Dzil Nachaa Si An, Mt. Graham: Fact and Fiction," *Cultural Survival Quarterly*, vol. 20, no. 3 (31 Oct 1996); Lisa Jones, "The administrator," *High Country News*, vol. 27, no. 13 (24 Jul 1995). Regarding UA's public relations strategies, see Tim Vanderpool, "Public Relations Sleazeballs Go Too Far In Defense Of The Latest Mount Graham Telescope Project," *Tucson Weekly*, 22-28 May 1997.

¹⁵⁴ Fergus M. Bordewich, *Killing the White Man's Indian: Reinventing Native Americans at the End of the Twentieth Century* (1996; New York: Anchor Books, 1997), 206. For a critique of Bordewich's work, see

astronomers and their allies.¹⁵⁵ In 2002, astronomers at the universities of Minnesota and Virginia used Bordewich's work and the few Apaches who supported astrophysical

book reviews by Thomas J. Hoffman, Scott Riney, Les W. Field, Elizabeth Cook-Lynn, and Richard White. "Keith Basso, a colleague whose decadeslong work with the Western Apache is well-known, sent me documents that showed how little research Bordewich had done about the Mt. Graham dispute," wrote Field. "If myth and reality lay behind separate doors, Fergus Bordewich's attempt to find 'real Indians' would be a lot easier," wrote historian White. Continued White, "The tools that he brings to his task are journalistic—the vignette, the interview, the historical sketch—and they are not always up to the task." White also wrote, "Bordewich has a tendency, too, to resort to one of the most revealing nineteenth-century versions of Indians and whites—the assault on helpless white victims." As White put it, "Bordewich has a stubborn attraction to stories of white victims of Indian sovereignty." White urged, "Indians cannot escape the rest of us, but they deserve to negotiate their own fate among us." Cook-Lynn wrote that Bordewich's book is popular, but "In terms of scholarship such works are neither history, nor anthropology, nor good research, nor even good literature." A review by Hoffman discussed the book's "fatal flaw." Historian Riney put it best when he wrote, "*Killing the White Man's Indian* would best serve our understandings of modern tribalism by disappearing without a trace." See the following book reviews: Thomas J. Hoffman, *The Social Science Journal*, vol. 36 (Jan 1999), 185-187; Scott Riney, *The Western Historical Quarterly*, vol. 29, no. 3 (Autumn 1998), 399-400; Les W. Field, "Lightening That Burden," *Current Anthropology*, vol. 39, no. 4 (Aug-Oct 1998), 583-584; Elizabeth Cook-Lynn, *Wicazo Sa Review*, vol. 12, no. 1 (Spring 1997), 228-232; Richard White, *The New Republic*, vol. 214, no. 2 (8 Jul 1996), 37-41.

Bordewich's comments regarding Mount Graham are inaccurate in many places and flat wrong in others. Bordewich's book is still listed as recommended reading on the website for Ohio State University's Department of Astronomy. But Bordewich's work is not uncorrupted by a point of view, an agenda, and political bias. Discriminating readers need only connect the people upon whom he looks down on in the book with the people whose voices he appreciates in his acknowledgements. At least two people associated with the MG telescope project are mentioned, while no Apaches, especially Ola Cassadore Davis, whom he belittles, are thanked. What is more: he barely mentions the icons of late twentieth century Indian America—people like Lakota scholar-activist Vine Deloria, Jr., or Kiowa author and critic N. Scott Momaday. Even the book by Robert F. Berkhofer, Jr., titled *The White Man's Indian: Images of the American Indian from Columbus to the Present* (New York: Vintage Books, 1979), from whom it appears that Bordewich takes his book's title and hopes to kill its subject, is barely mentioned. But Mount Graham figures prominently in a chapter in which he discusses Indian religious revivals, efforts to have their sacred lands returned, and sacred sites struggles (Chapter 6: "Predators, Victims, and Mother Earth," 204-239). It is also a chapter in which Bordewich shows how little he knew about his subject material. It is clear that he does not know the history of Western Apaches, the history of the current struggle for Mount Graham, the vast amount of documentation of the sacredness of place, the events that had already transpired before he wrote this chapter or finished the book. He gets so much wrong and yet a number of astronomers still cite this book and use it to argue their case.

¹⁵⁵ John P. Wilson, *Apache Use of the Pinaleno Mountain Range*, Report No. 55 (Tucson, AZ: Prepared for the Coronado National Forest, 1991); John P. Wilson, *Apache Use of the Pinaleno Mountain Range*, Report No. 57 (Tucson, AZ: Prepared for the Coronado National Forest, 1992). Thanks to Alan Ferg for copies of these reports. For a strong critique of Wilson's work and an important study of the history and cultural ties to Mount Graham, see John R. Welch, "White Eyes' Lies and the Battle for *dzil nachaa si'an*," *American Indian Quarterly*, Special Issue: "To Hear the Eagles Cry: Contemporary Themes in Native American Spirituality," Lee Irwin, ed., vol. 21, no. 1 (Winter 1997), 75-109.

development to prop up their decisions to join the Mount Graham International Observatory.¹⁵⁶

All of the arguments and comments by astronomers and their allies seemed to support claims from 1985 that “Mount Graham apparently has no tribe to defend it.”¹⁵⁷ Extensive scholarly documentation proves these claims, some of which were asserted in court documents, are false.¹⁵⁸ Yet such claims stand and are still supported, as the most

¹⁵⁶ Both University of Minnesota and the University of Virginia took their cues from the UA’s propaganda machine. See Gregory Savikoff, “Unjustly magnified problems,” in University Forum: “Should the University support the Mt. Graham telescope project?” *The Cavalier Daily* (University of Virginia), 14 Feb 2002; Elizabeth Managan, “Protect telescope project from politics,” *The Cavalier Daily* (University of Virginia), 30 Jan 2002; Department of Astronomy, University of Virginia, “What They Have Said: San Carlos Apaches and the Mount Graham International Observatory,” www.astro.virginia.edu/LBT/san_carlos.html, accessed 2 Nov 2003; The Mount Graham Coalition, “Setting the Record Straight: Rebuttal to the U of M’s Head of Astronomy,” (<http://www.mountgraham.org/WhitePapers/MNrebuttal.html>), Jun 2002; The Mount Graham Coalition, “Setting the Record Straight: Reply to the erroneous and misleading statements in the website of the U. of Virginia astronomy department ‘Fact Sheet’ regarding the Mt. Graham telescope project” (<http://www.mountgraham.org/WhitePapers/VArebuttal.html>), Jun 2002; See Mount Graham Coalition, “Untruthful assertions by UA’s LBT website about the Apache people,” www.mountgraham.org/az/lies.htm, accessed 11 May 2004.

Websites and materials from the University of Minnesota’s Department of Astronomy still link to Arizona’s (1 Nov 2008). Also, see comments by UMN astronomer Chick Woodward during the UMN University Senate meeting on October 30, 2003: Concurrent Meeting of the University Senate, Faculty Senate, and Twin Cities Campus Assembly, University of Minnesota (with the campuses of Duluth, Crookston, and Morris via phone), meeting, 30 Oct 2003, transcribed by author, 11 Jan 2004. UA’s website, as of April 19, 2004, when it was last updated, still contained erroneous and misleading information regarding the San Carlos Apache Tribe’s opposition to astrophysical development on Mount Graham. See Mount Graham International Observatory, University of Arizona, “Cultural Issues: The San Carlos Apache Tribe & MGIO,” <http://mgpc3.as.arizona.edu/Cultural.html>, accessed 14 May 2004 (now see: <http://medusa.as.arizona.edu/graham/cultur.html>, accessed 18 Apr 2010).

¹⁵⁷ Paul Brinkley Rogers, “Telescope sites focus on shrines,” *Arizona Republic* (Phoenix), 17 Nov 1985, B19.

¹⁵⁸ Elizabeth A. Brandt, “Executive Summary of the Preliminary Investigation of Apache Use and Occupancy and Review of Cultural Resource Surveys of the Proposed Mt. Graham Astrophysical Area, Pinaleno Mountains, Arizona,” for Apache Survival Coalition, 28 May 1991; Elizabeth A. Brandt, “Response to the Statements of the Vatican Observatory On the Mount Graham International Observatory and American Indian Peoples; and Statement on the Mount Graham International Observatory (MGIO), The Ecology of the Pinaleno Mountains, and Related Political Issues,” 5 May 1992; Elizabeth A. Brandt, “The Fight for *dzil nchaa si’an*, Mount Graham: Apaches and Astrophysical Development in Arizona,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), 19, no. 4 (Winter 1996), 50-57; Welch, “White Eyes’ Lies and the Battle for *dzil nchaa si’an*”; Giovanni B. A. M. Panza, “The Impaling of Apache Holy Ground: No Conflict Resolution on Mt. Graham” (master’s thesis, Prescott College, Arizona, 1997), 1-50; Alice Feldman, “Othering Knowledge and Unknowing Law: Colonialist Legacies, Indigenous Pedagogies, and Social Transformation” (PhD diss., Arizona State University, 1998). The sheer amount of newspaper references to Mount Graham, its sacred characteristics, and the Apache use of the mountain is breathtaking. See Seth Pilsk, “Inspiring to read about groundbreaking work,” letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 11 Dec 2002;

recent battles at UMN and UVA show. As the White Mountain Apache Tribe's historic preservation officer John Welch wrote, the telescope proponents' "notions about the Apache rely on reports from soldiers and explorers who seldom spent more than a few weeks in *Apacheria* or cared to learn more about its residents than was required to subdue them or take their land."¹⁵⁹ Plenty of evidence exists, especially from the San Carlos and White Mountain Apache elders but also from U.S. soldiers and explorers, to support Apache use and reverence of Mount Graham, both when the mountain was part of traditional homelands and included within reservation boundaries and after the modification of reservation boundaries by the federal government in 1873—and at various points thereafter.¹⁶⁰ There exists documentation regarding Mount Graham as the home of the supernatural "Mountain Spirits" (*Gaan*), a location for gathering of medicinal and sacred herbs for ceremonial uses, a place of prayer and burial rituals, a source of supernatural power, and site of refuge in earlier times. Western Apaches historically and more importantly today consider Mount Graham a most holy and important mountain. What is most significant and most difficult to argue against is that in 2002, after an exhaustive process and a mountain of evidence, the entire Pinaleño range (named after its tallest peak, Mount Graham) was determined eligible for listing on the National Register of Historic Places as a Traditional Cultural Property of the Western Apache people—proof of Apache claims to Mount Graham.¹⁶¹ The Mount Graham

Sandra Rambler, "Science without humanity," Traditionally Speaking column, *San Carlos Apache Moccasin* (Globe, AZ), 11 Dec 2002; Ola Cassadore Davis, "Learning about Apache folklore from our parents," *San Carlos Apache Moccasin* (Globe, AZ), 11 Dec 2002.

¹⁵⁹ Welch, "White Eyes' Lies and the Battle for *dzil nachaa si'an*."

¹⁶⁰ Welch, "White Eyes' Lies and the Battle for *dzil nachaa si'an*"; White Mountain Apache Tribe, resolution, 15 Jul 1999. See Mount Graham Coalition, "Another Apache Tribe Urges U.S. To Protect Mt. Graham Sacred Land," News Advisory, 29 Aug 1999, www.yvwiusdinvnohii.net/News99/0899/MTG990829protect.htm, accessed 13 Nov 2003.

¹⁶¹ National Park Service, United States Department of Interior, "Determination of Eligibility Notification," 30 Apr 2002; Patricia M. Spoerl, "Mt. Graham (*Dzil nachaa si'an*): A Western Apache Traditional Cultural Property Or Determination of Eligibility for the National Register of Historic Places, Mt. Graham (*Dzil nachaa si'an*)," (Safford Ranger District, Coronado National Forest, Arizona), May 2001; Patricia M. Spoerl, "Supplement to Determination of Eligibility for Mt. Graham (*Dzil nachaa si'an*) Traditional Cultural Property," 15 March 2002; Thomas Stauffer, "Historic status set for Mount Graham," *Arizona Daily Star*, 21 May 2002; Tom Jackson King, "Feds back Apaches on Mount Graham," *Eastern Arizona Courier*, vol. 114, no. 21, 22 May 2002; "Historic status for Mount Graham may help Apache fight observatory," *Indian Country Today*, 29 May 2002; Michael V. Nixon to Dwight

Coalition put it best when it stated that telescope proponents have “been grossly misinformed about the Western Apache people in Arizona and their history.”¹⁶²

The UA and its research partners are part of a wider trend of Euro-Americans appropriating resources. Attacking and ravaging the land/ecology has been a way for Euro-Americans to weaken Indian tribes in a variety of contexts and places (kill the buffalo, remove the Indian threat, et cetera), especially Mount Graham. In this case, by removing Mount Graham from reservation boundaries, placing Indians on government-created reservations, controlling the movement of Apaches by having military power over Arizona’s mountain ranges, and harvesting the numerous resources on and around Mount Graham, the U.S. government carried out a successful campaign to weaken and denigrate Apaches, and exercise its will and control over a people and their lands. As historian Yuichiro Onishi wrote, “the denial of the United States as a colonial power relegated histories of conquest, enslavement, colonial subjugation, imperial wars, military occupation, and economic exploitation to the margins of national memory.”¹⁶³ That history is at the heart of this chapter and is the foundation on which more recent struggles for Mount Graham rest.

Metzger, email, 7 May 2002; “Mt. Graham group applauds designation,” *San Carlos Apache Moccasin* (Globe, AZ), 7 Jun 2002; Associated Press, “Mount Graham ruled eligible for historic status protections,” *News from Indian Country*, vol. XVI, no. 11 (mid Jun 2002); Michael Nixon, “University should divest from observatory: Mount Graham is a historical Apache traditional cultural property and sacred site,” *The Minnesota Daily* (University of Minnesota), 25 Oct 2004, 9A. For criticism of the Determination of Eligibility listing, see Editorial, “End Run,” *Arizona Star Daily*, 22 May 2002; “Mount Graham belongs to everyone,” editorial, *Eastern Arizona Courier* (Safford, AZ), 29 May 2002. For an Apache response to the editorial, see Franklin Stanley, “repeated untruths,” letter to editor, *Arizona Daily Star* (Tucson), 2 Jun 2002.

¹⁶² The Mount Graham Coalition, “Setting the Record Straight: Rebuttal to the U of M’s Head of Astronomy.” See also, The Mount Graham Coalition, “Reply to U. of Minnesota Astronomy Department’s Mt. Graham position paper, Dec. 2001. Author, Dr. Leonard Kuhi, Chair, Dept. of Astronomy,” rough draft (ca. Feb 2002).

¹⁶³ Yuichiro Onishi, “Giant Steps of the Black Freedom Struggle: Trans-Pacific Connections Between Black America and Japan in the Twentieth Century” (PhD diss, University of Minnesota, 2004), 263.

Western Apache Territory before 1871¹⁶⁴

There is a great amount of difficulty studying Apache history, knowledge, and culture. Many records about Apaches were not created by Apaches themselves but instead by representatives of the dominant culture; records that contain information regarding Mount Graham are protected by Western Apache elders at San Carlos and elsewhere. Furthermore, various names are used for Mount Graham, the various Apache groups/bands, and the lands that they once controlled and traveled. Spanish, Mexican, and American military leaders, anthropologists, Indian agents, and Apaches themselves have called the same Apache groups and Mount Graham various names throughout the written historical record.¹⁶⁵ In his book on Arizona place names, for example, Will Barnes pointed out that “Lt. John G. Bourke noted that in the early 1870’s the Mexicans called the mountains [Mount Graham range] Sierra Bonita.”¹⁶⁶ The most common Spanish name for Mount Graham was “Sierra Florida” or “Sierra de la Florida.” Moreover, the records are themselves difficult to track down, as present-day Arizona was once a part of Mexico, then New Mexico, then the United States; the U.S. military for Arizona was headquartered in different places at different times; and locations on maps and Apache names are often incorrect or misspelled. There is little precise certainty, but what is known sheds a great amount of light on the traditional homeland of the Western Apache people and the ways in which they used and respected that place. Given the

¹⁶⁴ In 1871, the U.S. government ended treating-making with American Indians. See David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000), 191.

¹⁶⁵ For example, on February 29, 1932, in a letter to Apache scholar Morris Opler, anthropologist Grenville Goodwin tried to clarify the differences between the Pinal Mountains, Graham Mountain, Pinalaño Mountain, and the Pinal Apaches. A few months later, Goodwin sent another letter in which he tried to clarify the terms Pinal, Pinal Coyotero, and Pinalaño. Interestingly, in a typed letter to Opler, Goodwin declared that “‘time immemorial’ ... is a bad expression to use.” See, respectively, Grenville Goodwin to Morris Opler, 29 Feb 1932; Grenville Goodwin to Morris Opler, 4 Apr 1932; Grenville Goodwin to Morris Opler, 15 Oct 1933. All letters are located not only in Grenville Goodwin, “Subseries E: Western Apache: Correspondence with Goodwin,” Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folders 3 & 4 but also in Morris E. Opler, *Grenville Goodwin Among the Western Apache: Letters from the Field* (Tucson: University of Arizona Press, 1973).

¹⁶⁶ Byrd H. Granger, *Will C. Barnes’ Arizona Place Names*, rev. and enlarged (Tucson: The University of Arizona Press, 1960), 127; John G. Bourke, *On the Border with Crook*, 2nd ed. (1891; New York: Charles Scribner’s Sons, 1896), 207.

recent struggle for Mount Graham, it is important to thoroughly and precisely describe the Apache's historical ownership and presence on the land.

Present-day Arizona includes some of the most diverse landscapes on Earth. From the desert floor to the tops of mountains over two miles high, this landscape is the home of assorted plant and animal life, some of which is found nowhere else on Earth. A large portion, approximately 90,000 square miles, of this diverse place is the traditional homeland of Western Apaches.¹⁶⁷ A significant portion of that land is “traditional cultural property” of the Western Apaches, and specifically includes Mount Graham. As is the case with many Indigenous peoples, Western Apaches maintain traditional homelands that are bounded by four sacred places, oftentimes mountains in the four cardinal directions, each of which are identified by name and color.¹⁶⁸ The landscape that has encompassed the “traditional Western Apache” homeland since time immemorial is diamond-shaped and includes *dzil tso—dilzhe'e* (San Francisco Peaks [north]), the White Mountains, especially Mount Baldy (east), the Mazatzal Mountains (west), and Mount Graham, or “Big Seated Mountain” (south).¹⁶⁹

In a 1938 essay on the Southern Athapaskan linguistic family, anthropologist Grenville Goodwin noted that the “Southern Athapaskans have been composed of seven distinct divisions” in the Southwest: Chiricahua Apache, Mescalero Apache, Lipan Apache, Jicarilla Apache, Kiowa-Apache, Western Apache, and Navajo.¹⁷⁰ In 1870, according to Goodwin, the approximate populations of these divisions were respectively

¹⁶⁷ Keith H. Basso, ed., *Western Apache Raiding & Warfare: From the Notes of Grenville Goodwin* (1971; Tucson: The University of Arizona Press, 1998), 13. The total area of the state of Arizona is 113,998 square miles.

¹⁶⁸ Ortiz, *The Tewa World*, xiii, xvi, 14-28; Alan Kolata, “In the Realm of the Four Quarters,” in *America in 1492: The World of the Indian Peoples Before the Arrival of Columbus* (1991; New York: Vintage Books, 1993), 244-245; Gill, “Religious Forms and Themes,” 286-287.

¹⁶⁹ Basso, “Declaration of Keith Basso in Support of a Preliminary Injunction on 9 April 1992,” 5. Some Apaches also cite the Superstition Mountains as the western sacred mountain border and include the Mogollon Mountain range in New Mexico with the White Mountain range on the east.

¹⁷⁰ Grenville Goodwin, “The Southern Athapaskans,” *The Kiva*, vol. IX, no. 2 (Nov 1938), 5. See also, Morris E. Opler, “Chiricahua Apache,” in *Handbook of the North American Indian*, vol. 10: “Southwest,” Alfonso Ortiz, ed. (Washington: Smithsonian Institution, 1983); Basso, ed., *Western Apache Raiding & Warfare*, 12.

15,000; 3,600; 1,000; 830; 300; 769; and 320.¹⁷¹ The Western Apaches are “comprised of five groups, White Mountain [also known as Coyoteros], Cibecue, San Carlos [also known as Arivaipa or Aravaipa], Southern Tonto, and Northern Tonto.”¹⁷² These groups, especially the Eastern White Mountain Apache and the San Carlos Apache, are the groups closest to Mount Graham, or the Pinalaño Mountain Range. Indeed, high peaks were utilized by all Athapaskan speaking peoples of the Southwest throughout separate colonial periods until nearly the end of the nineteenth century. For example, Navajos evaded the U.S. military and took refuge in the San Francisco Mountains.¹⁷³ Like the Western Apaches, the Navajo Nation also views the San Francisco Peaks near Flagstaff as sacred.¹⁷⁴ But the Western Apache traditional homelands are comprised of three additional mountain ranges.

According to historian Jacob Piatt Dunn, writing in 1886 near the end of the military’s wars against Apaches, “The Apaches proper call themselves ‘Shis Inday,’ or People of the Woods, a rather strange name for a tribe living in a country where three trees constitute a *bosque* or forest, but taken by them probably because the principal timber growth of the region is on the mountains which have long afforded them safe retreats.” Dunn noted that several Apache groups lived near the Gila River. In particular, “North-west of the Chiricahuas was a tribe sometimes called the Pinalaños or Pinal (Penole) Apaches, and sometimes called the Arivaipas (Aribaipais), from the Rio Arivapa which flows on the south-west of the Pinal Range to the Gila,” stated Dunn. Additionally, “Westward along the Gila River, and through the country north of it, roamed the Coyotéros, the most considerable of the tribes, who are said to have their name from the

¹⁷¹ Goodwin, “The Southern Athapaskans,” 5. See also, Joel Sherzer, “Genetic Classification of the Languages of the Americas,” in *America in 1492: The World of the Indian Peoples Before the Arrival of Columbus* (1991; New York: Vintage Books, 1993), 446.

¹⁷² Goodwin, “The Southern Athapaskans,” 6; Alfred Louis Kroeber, *Cultural and Natural Areas of Native North America* (Berkeley: University of California Press, 1939), 36; John G. Bourke, “Notes Upon the Gentile Organization of the Apaches of Arizona,” *The Journal of American Folklore*, vol. 3, no. 9 (Apr-Jun 1890), 119, 125.

¹⁷³ Albert H. Schroeder, “Navajo and Apache Relationships West of the Rio Grande,” *El Palacio*, vol. 70, no. 3 (Autumn 1963), 13-14.

¹⁷⁴ See Klee Benally, dir., *The Snowbowl Effect: When Recreation and Culture Collide*, 2004; Save the Peaks Coalition, www.savethepeaks.org; as well as recent struggles for the “Peaks.” See also Welch, “A *dzil ncha si’an* Chronology,” 1-75.

habit of eating the coyote or prairie wolf.” Dunn also described the “Tontos” and the “Mogollons (Mogayones),” other Apache tribes in the area.¹⁷⁵

According to historian Jack Forbes, “In the 1800’s the Western Apaches occupied the region bounded on the west by Flagstaff, Camp Verde, Globe and Tucson and on the east by Clifton and Springerville. Their northern range was limited to the northern slopes of the Mogollon Mountains, while towards the south they met the Chiricahua near Benson and Safford.” Such conclusions cast doubt on the size of the traditional homelands of Western Apaches, but certainly Forbes’s mention of Benson, Arizona, just southeast of Tucson, includes Mount Graham. “At the beginning of the European contact period, in the 1600’s, the territory of the Western Apaches lay somewhat to the north of the above-described region and probably did not extend to the south of the Gila River,” argued Forbes.¹⁷⁶ Nevertheless, Forbes argued that the “Western Apache ... resided in a ... mountain environment.” Indeed, the vast territory included in Forbes’ research is extremely mountainous and includes some of the tallest peaks in Arizona. A contemporary of Forbes, M. Jean Tweedie, wrote, “The Western Apaches were geographically further from the raiding Comanches and seemed to have remained primarily in a more mountainous region.”¹⁷⁷ Continued Forbes, “The area from southern Arizona to Zuni was referred to as a *despoblado* or wilderness which has been interpreted as meaning that the region was uninhabited; however, *despoblado* does not necessarily mean an uninhabited wilderness for Spaniards have been known to make reference to ‘a *despoblado inhabited by Apaches.*’”¹⁷⁸

Forbes writes that, “the warriors that had been assembled in the mountains ... are called Querechos” by the Spanish. According to Forbes, “It seems quite clear that the

¹⁷⁵ Jacob Piatt Dunn, *Massacres of the Mountains: A History of the Indian Wars of the Far West* (Harper & Brothers, 1886), 357-358. Elsewhere, Dunn refers to the “White Mountain Coyoteros.” Dunn, *Massacres of the Mountains*, 735.

¹⁷⁶ Jack D. Forbes, “The Early Western Apache, 1300-1700,” *Journal of the West*, vol. 5, no. 3 (1966), 337.

¹⁷⁷ M. Jean Tweedie, “Notes on the History and Adaptation of the Apache Tribes,” *American Anthropologist*, 70 (1968), 1141.

¹⁷⁸ Forbes, “The Early Western Apache,” 345. See also, Jack D. Forbes, *Apache, Navaho and Spaniard* (1960; Norman: University of Oklahoma Press, 1979), 7, 9, 9 fn. 25.

term Querecho referred to Athapaskans.”¹⁷⁹ In the early 1600s, Juan de Oñate’s lieutenant, Vincente de Zaldívar, found people whom he called Vaqueros. Oñate then called the Vaqueros, “Apache.”¹⁸⁰ Francisco Vásquez de Coronado, after whom the forest in which Mount Graham is located would eventually be named, may have travelled past the Pinaleno Mountains in 1540.¹⁸¹ In 1581, Antonio de Espejo met with the “Apichi” who were settled in the mountains.¹⁸² Indeed, the Spaniards called the Apache “mountain people.”¹⁸³ The Spaniards described meeting an Apache group thus: “They had crowns of painted sticks on the heads.” Forbes points out that “the head-dresses of painted sticks suggest the similar head-dresses of Apache *gaun* dancers.” The Spanish “encountered Indians who had the custom of wearing ‘crosses on their heads,’” as well as “many peaceful mountain Apaches on the way.”¹⁸⁴ According to U.S. military surgeon Henry Stuart Turrill in a 1907 speech, “Throughout the entire time of the Spanish occupation of the country the Apaches seem to have held their mountain homes, with only occasional encounters with the soldiers of Spain.”¹⁸⁵ The Spanish took note of the riches of the area, as would countless travelers to the Southwest during the nineteenth century. “Thus it is very clear that in the 1660’s the Western Apache held the area from Sonora and the Pimas north to the lands of the Coninas (Havasupais probably) and also to the Hopi area,” remarked Forbes about the large amounts of space once included in historical Western Apache homelands, sometimes called Apacheria. “The entrance of the Spaniard into the Southwest was a disturbing factor,” according to Forbes, that laid the foundation for future colonial ambitions and rule by the Spanish from the late 1600s until 1821, when

¹⁷⁹ Forbes, “The Early Western Apache,” 346.

¹⁸⁰ Dolores A. Gunnerson, “The Southern Athabascans: Their Arrival in the Southwest,” *El Palacio*, vol. 63, nos. 11-12 (Nov-Dec 1956), 353. For more on “Vaqueros” and “Querechos,” see Basil Calvin Hendrick, J. Charles Kelley, Carroll L. Riley, eds., *The Classic Southwest: Readings in Archaeology, Ethnohistory, and Ethnology* (Carbondale: Southern Illinois University Press, 1973).

¹⁸¹ Forbes, *Apache, Navaho, and Spaniard*, 9. See comments by anthropologist Alfonso Ortiz in Diane Reyna, dir., *Surviving Columbus: The Story of the Pueblo People*, PBS/The Institute of American Indian Arts, 1992.

¹⁸² Bourke, *On the Border with Crook*, 122.

¹⁸³ Forbes, “The Early Western Apache,” 346.

¹⁸⁴ Forbes, “The Early Western Apache,” 347.

¹⁸⁵ See Henry Stuart Turrill, “A Vanished Race of Aboriginal Founders,” *The New York Society of the Order of the Founders and Patriots of America*, Publication no. 18 (14 Feb 1907), 11; Eve Ball, *Indeh: An Apache Odyssey* (1980; Norman: University of Oklahoma Press, 1988), 28.

Mexico gained its independence. Significantly, “the Spaniards won the enmity of the Athapaskans and created a northern barrier which was to outlast the Spanish Empire in the Southwest.”¹⁸⁶

According to one twentieth-century account, the Apaches lived in “A high land—from 5,000 to 13,000 feet high. A land of dry, translucent air, of stupendous cloud effects and sudden, brief lightning storms. Between great, far-separated mountains that rise alone, and wild wilderness of mountains.”¹⁸⁷ Archaeologist Bryon Cummings pointed out: “From the mountains of eastern and southern Arizona sallied the Apache.”¹⁸⁸ As anthropologist Charles Kaut wrote,

Between 1850 and 1875, the period for which it has been possible to reconstruct the territories of the various local groups of Western Apaches (Goodwin 1942) and the clan organization of these groups, there were some four thousand Western Apaches living in five separate ecological regions. During most of the year these groups were relatively isolated from each other, working their farms or hunting and gathering in their particular area. During the winter months people from all five regions moved down from the higher country to the desert river valleys.¹⁸⁹

“In May the people deserted their low-altitude winter headquarters and moved to farm sites located near streams in the mountains,” wrote Basso. These “Sky Islands”—mountains separated by a sea of desert—were the homes, safe-havens, and prayer centers of Apache spirituality and healing, long before John Collier, Cummings, and Kaut made their comments in the middle of the twentieth century.

The amount of land covered by all Western Apache groups is staggering. According to Basso, “The White Mountain Apache, most easterly of the Western Apache groups, ranged over a large expanse of country bounded by the Pinaleno Mountains on

¹⁸⁶ Forbes, *Apache, Navaho, and Spaniard*, 285.

¹⁸⁷ John Collier, *Patterns and Ceremonials of the Indians of the Southwest* (1949; New York: Dover Publications, 1995), 20, especially Collier’s chapter, “Mountain Peaks of the Submerged Social Continent,” 26-30. See also, John Collier, *On the Gleaming Way: Navajos, Eastern Pueblos, Zuñis, Hopis, Apaches, and Their Land and Their Meanings to the World* (1949; Denver: Sage Books, 1962).

¹⁸⁸ Bryon Cummings, *First Inhabitants of Arizona and the Southwest* (Tucson: Cummings Publication Council, 1953; Phoenix: McGraw Printing, 1953), 2.

¹⁸⁹ Charles R. Kaut, “Western Apache Clan and Phratry Organization,” *American Anthropologist*, vol. LVIII, no. 1 (Feb 1956), 141. See also, Charles B. White, “A Comparison of Theories on Southern Athapaskan Kinship Systems,” *American Anthropologist*, vol. 59, no. 3 (Jun 1957), 434-448.

the south and by the White Mountains to the north.”¹⁹⁰ About the region through which Apaches moved and lived, Basso wrote,

the Western Apache occupied an area of approximately 90,000 square miles. Characterized by extreme ecological diversity, this is a region of rugged mountains and twisting canyons, of well-watered valleys and arid desert. Elevations rise from 2,000 feet to slightly less than 12,000, and temperatures fluctuate from near zero to well above 100 degrees. Precipitation ranges from about 10 inches at the lower elevations (Lower Sonoran life zone) to 20 to 30 inches at the higher altitudes (Canadian life zone). The flora varies considerably from essentially desert types, including a large number of cactus species, to heavy stands of conifers, cottonwood, and oak. Game in the form of deer, elk, wild turkey, and bear is plentiful.¹⁹¹

The Western Apaches travelled extensively throughout this ecologically unique mountain region, successfully protecting these mountainous lands from various colonial powers, until the U.S. government made it increasingly difficult for them to maintain their land-based connections in the early decades of the nineteenth century.

Resource Wars in Apacheria, 1826-1886¹⁹²

Apache history, since the early nineteenth century especially, is a history of encountering colonialism. From the Spanish to the Mexican Republic to the U.S. territorial government, U.S. military, and U.S. federal government, the Apache have endured the lasting effects of a great number of policies that attempted to exterminate them and often succeeded in forcing them onto reservations, reducing the size of their traditional homelands, and dictating what they are permitted to do religiously, economically, or otherwise. Despite these onslaughts against them and their culture, Apaches have always resisted—by protest, by petition, and by taking to the mountains when necessary. Although the history of the Apaches in the Southwest is long, the patterns of colonialism against Apaches and their lands are most clearly seen in the decades before the beginning of the Mexican-American War. By the 1830s, the U.S. had a vested interest in the lands of the Southwest, particularly the valleys and mountains, especially Mount Graham,

¹⁹⁰ Basso, “Western Apache Witchcraft,” 9

¹⁹¹ Basso, “Western Apache Witchcraft,” 11.

¹⁹² See Thrapp, *The Conquest of Apacheria*; Al Gedicks, *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations* (Cambridge, MA: South End Press, 1993).

controlled by Western Apache groups. Indeed, as Dunn put it in 1886, “About half a century has elapsed since the idea of possessing and settling the Rocky Mountain region began to develop in the minds of the American people.”¹⁹³ Most of what we know from the nineteenth century about Western Apaches and the vast resources located on their homeland comes from military personnel and their allies, and a great amount of that information proves that Apaches owned Mount Graham throughout recorded history.

Although the Mexican Army explorers that took part in the Romero Expeditions of Arizona and California in the 1820s never got close to Mount Graham, other contemporary expeditions in the nineteenth century did.¹⁹⁴ “American fur trappers journeyed down the Gila in 1826,” according to historian Robert Utley, and were some of the first Americans to see the mountainous lands of northern Mexico, including Mount Graham.¹⁹⁵ Fur trapper James Pattie traveled throughout the Southwest in the 1830s. In 1831, he said that American trappers on the Gila River ran into Apaches near Fort Thomas: “surprised and alarmed, the Indians fled into the mountains.”¹⁹⁶ He made reference to the Indians who lived on the mountains and the terrain of the future state of Arizona. He also made the argument that the suppression of the Indians in the region was necessary for future settlement and farming of white Americans. Noted Pattie,

the mountains run almost parallel to the river, and at a distance of eight or ten miles. They are thickly covered with noble pine forests, in which aspen trees are intermixed. From their foot gush many beautiful clean springs. On the whole, this is one of the loveliest regions for farmers that I have ever seen, though no permanent settlements could be made there, until the murderous Indians, who live in the mountains, should be subdued.¹⁹⁷

¹⁹³ Dunn, *Massacres of the Mountains*, 27. Although Mount Graham is located between the southern Rocky Mountains and Mexico’s Sierra Madre Occidental, Dunn’s work looks at the mountainous regions of the West and his comments certainly apply to the eagerness to acquire lands such as Mount Graham.

¹⁹⁴ Lowell John Bean and William Marvin Mason, *The Romero Expeditions in Arizona and California, 1823-1826* (Los Angeles: The Ward Ritchie Press, 1962).

¹⁹⁵ Robert Utley, National Parks Service, “Historical Report on Fort Bowie, Arizona,” Jan 1958, 4.

¹⁹⁶ Frank Lockwood, *The Apache Indians* (New York: The MacMillan Company, 1938), 67.

¹⁹⁷ James O. Pattie, *The Personal Narrative of James O. Pattie, of Kentucky, During an Expedition from St. Louis, through the vast regions between that place and the Pacific Ocean, and thence back through the City of Mexico to Vera Cruz, during journeying of six years, etc.*, Timothy Flint, ed. (Cincinnati: John H. Wood, 1831), 115.

Although he does not describe Mount Graham here, Pattie's comments about Indians, specifically "muscalleros" (Mescalero Apaches), "snow covered mountains," the River Gila ("Helay," as Pattie put it), and colonialism were repeated often by travelers, surveyors, and military representatives before and after the creation of Indian reservations in Arizona.¹⁹⁸

Mexicans were often at war with Apaches, especially in the 1830s, just a decade after Mexican nationhood. By 1837, the Mexicans of Sonora and Chihuahua established a "war-project" against the Apaches, with a "scale of rewards" for contract warfare established to hunt and kill Apaches.¹⁹⁹ Chihuahua created a law, *Proyecto de Guerra*, or project for war, "by which the state offered one hundred dollars for the scalp of an Apache warrior, fifty for the scalp of a squaw, and twenty-five for that of a child. Sonora was also paying a bounty for scalps, and both gave to the captor the booty he might take from the Indians."²⁰⁰ Although it was apparently never sanctioned by the "general government, ... it was strongly advocated by some of the most intelligent citizens of Chihuahua," according to one report.²⁰¹ Among many other businesses, owners of the Santa Rita copper mines also encouraged trappers to kill Apaches.²⁰²

According to John Taylor Hughes, who travelled throughout the Southwest with Colonel Alexander Doniphan, the one-time defender of Joseph Smith and other Mormons in Missouri in the 1830s, during the Mexican-American War, Apaches

"have been harshly dealt with by Americans, in the employment of Chihuahua, who have hunted them, at fifty dollars a scalp, as we would hunt wolves; and one American decoyed a large number of their brethren in the rear of a wagon, to trade, and opened fire a field piece among them." This produced great havoc among them, and lasting dread of the Americans.²⁰³

¹⁹⁸ Pattie, *The Personal Narrative of James O. Pattie*, 117, 158.

¹⁹⁹ Josiah Gregg, *Commerce of the Prairies, Or the Journal of a Santa Fé Trader, During Eight Expeditions Across The Great Western Prairies, and a Residence of Nearly Nine Years in Northern Mexico*, vol. 1, 2nd ed. (New York: J. & H. G. Langley, 1845), 299. See Ralph Adam Smith, *Borderlander: The Life of James Kirker, 1793-1852* (Norman: University of Oklahoma Press, 1999), 70-71.

²⁰⁰ Dunn, *Massacres of the Mountains*, 360-361. See also, Frank S. Edwards, *A Campaign in New Mexico with Colonel Doniphan* (London: 1848), 62.

²⁰¹ Gregg, *Commerce of the Prairies*, 299.

²⁰² Dunn, *Massacres of the Mountains*, 361.

²⁰³ William Elsey Connelley, *Doniphan's Expedition and the Conquest of New Mexico and California* (Topeka, KS: Connelley, 1907), 102; See John T. Hughes, *Doniphan's Expedition; Containing an*

By the beginning of the Mexican-American War, Apaches already had their own ideas about what to expect from the U.S. government and its armies. The “power of naming and claiming” the land was about to get under way as armies of soldiers and scientists mapped the Southwest.²⁰⁴

The first recorded mention of the English term “Mount Graham” occurred in the 1846 at the start of the Mexican-American War, although some historians argue that the term was known and used earlier. Historian James McClintock stated, “It is notable that in 1846 Mount Graham already was known by that name.”²⁰⁵ During the war, Lieutenant Colonel William Emory acted as Chief Topographical Engineer in the Southwest and followed the command of General Stephen Kearny as they explored and mapped the territory from Fort Leavenworth to California.²⁰⁶ In his writings, Emory mentioned Mount Graham and nearby Mount Turnbull as he travelled through the Gila Valley.²⁰⁷ (At the same time, a Mormon battalion following Kearney under the direction of Philip St. George Cooke also referred to “Mount Graham.”²⁰⁸) In fact, a lithograph of Mount Graham was included in Emory’s report to Congress.

Account of the Conquest of New Mexico; General Kearney’s Overland Expedition to California, Doniphan’s Campaign against the Navajos; His Unparalleled March Upon Chihuahua and Durango; and the Operations of General Price at Santa Fe: With a Sketch of the Life of Col. Doniphan (Cincinnati: U. P. James, 1847), reprinted as *The Hughes Reprint* in Connelley, *Doniphan’s Expedition and the Conquest of New Mexico and California*, 327.

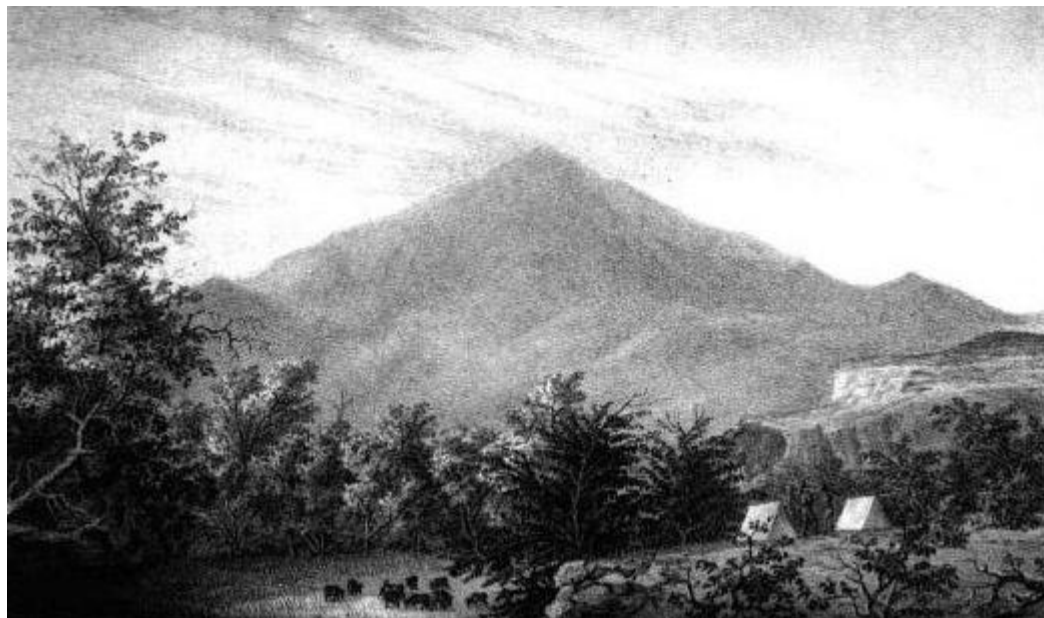
²⁰⁴ See Basso, *Wisdom Sits in Places*, 156, fn. 2; David Hurst Thomas’ chapter titled “Columbus, Arawaks, and Caribs: The Power to Name,” in David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000), 3-10, and x1, xli; and Winona LaDuke, *Recovering the Sacred: The Power of Naming and Claiming* (Cambridge, MA: South End Press, 2005).

²⁰⁵ James H. McClintock, *Mormon Settlement in Arizona: A Record of Peaceful Conquest of the Desert* (Phoenix: The Manufacturing Stationers, 1921), 242.

²⁰⁶ L. David Norris, James C. Milligan, and Odie B. Faulk, *William H. Emory: Soldier-Scientist* (Tucson: University of Arizona Press, 1998).

²⁰⁷ Mount Turnbull is the highpoint (8282 feet) of the Santa Teresa Mountains and is located on the San Carlos Apache Reservation, approximately 10 to 15 miles north of Mount Graham.

²⁰⁸ W. H. Emory, “Exploring Tour from the Missouri to the Pacific,” *The Latter-Day Saints’ Millennial Star*, 1 Feb 1848, in Church of Jesus Christ of Latter-Day Saints, *The Latter-Day Saints’ Millennial Star*, vol. X (Liverpool: Orson Pratt, 1848), 35.



“View of Mt. Graham.”²⁰⁹

According to the entry for “Mount Graham” in Barnes’ book on place names in Arizona,

Despite the fact that Mount Graham bears one of the oldest place names in Arizona, the origin of the name remains shrouded in doubt. Lt. William H. Emory referred to it by its present name on October 28, 1846, thus lending strong support to the possibility of its having been named for William A. Graham, Secretary of the Interior and later (1848-1851) Secretary of War *ad interim*. Another possibility is that it was named for Major Lawrence Pike Graham, 2nd Dragoons, who in 1848 journeyed from Santa Cruz to San Diego. Still a third—but least likely because of the date involved—is the name of Col. James Duncan Graham, a member of the Boundary Survey party in 1851. Col. Graham is less likely a prospect from another point of view: the dissension which existed between him and Commissioner [John Russell] Bartlett over survey matters.²¹⁰

²⁰⁹ W. H. Emory, *Notes of a Military Reconnoissance from Fort Leavenworth, in Missouri, to San Diego, in California, Including Part of the Arkansas, Del Norte, and Gila Rivers*, Thirtieth Congress—First Session, Ex. Doc. No. 41 (Washington: Wendell and Van Benthuysen, 1848), 67, 68, 72, 73, 75, and the lithograph is on the page following 72. See also, W. H. Emory, “Report of a Military Reconnoissance from Fort Leavenworth, in Missouri, to San Diego, in California, Including Part of the Arkansas, Del Norte, and Gila Rivers,” in *The Senate of the United States, During The First Session of the Thirtieth Congress, Begun and Held at the City of Washington, December 6, 1847, and in the Seventy-First Year of the Independence of the United States, in Eight Volumes*, Vol. III (Washington: Wendell and Van Benthuysen, 1847).

²¹⁰ Granger, *Will C. Barnes’ Arizona Place Names*, 127; John Russell Bartlett, *Personal Narrative of Explorations and Incidents in Texas, California, Sonora, and Chihuahua, Connected with The United*

In fact, Emory was sent to relieve Graham of his post in October 1851, order certain areas resurveyed, and the “office of Chief Astronomer [was] abolished.”²¹¹ Emory called Graham, “my successor and predecessor as chief astronomer.”²¹² Nevertheless, Emory and Graham actually disagreed with Bartlett, promoting the likelihood that Mount Graham is in fact named after James Graham.²¹³ While Graham was a member of the Boundary Survey team, he was also a member of Emory’s forces in 1846. Graham was a senior officer in the Army Corps of Topographical Engineers—part of Kearny’s expedition party that predates the other two people mentioned by Barnes. The *Dictionary of American Biography* stated that “Mount Graham in southeastern Arizona was named for [James Duncan Graham].”²¹⁴ It seems ironic that Mount Graham, given its later history, was named for an astronomer. But if Emory did name Mount Graham after James Graham, it seems likely that Emory would have mentioned it in his report.

Included in Emory’s report was the journal of Captain Abraham Johnston, who mentioned the “Pinoleros,” a reference to a particular band of Western Apaches.²¹⁵ Emory noted the “great Apache nation, which inhabits all the country north and south of the Gila, and both sides of the Del Norte [Rio Grande],” a huge area that includes present-day New Mexico, Arizona, and northern Mexico.²¹⁶ He described the “piñon lanos” tribe of Indians and noted “the great Apache nation, together with the Cyotleros

States and Mexican Boundary Commission, During the Years 1850, '51, '53, and '54 (New York: D. Appleton & Company, 1854), 166, 546.

²¹¹ Bartlett, *Personal Narrative of Explorations and Incidents*, 596.

²¹² William H. Emory, *Report on the United States and Mexican Boundary Survey, Made Under the Direction of William H. Emory, Major First Cavalry and United States Commissioner*, vol. 1, 34th Congress, 1st Session, Ex. Doc. No. 135 (Washington: Cornelius Wendell, Printer, 1857), 19.

²¹³ John W. Audubon, *Audubon’s Western Journal: 1849-1850, Being the MS. record of a trip from New York to Texas, and an overland journey through Mexico and Arizona to the gold-fields of California*, Frank Heywood Hodder, ed. (Cleveland: The Arthur H. Clark Company, 1906), 155.

²¹⁴ *Dictionary of American Biography*, vol. 7 “Fraunces-Grimké” (n.d.), photocopy, 476, in *National Forests: Specific—Coronado National Forest, General*, U.S. Forest Service Headquarters History Collection (Mt. Graham/Coronado), Forest History Society, Durham, NC. See also, Audubon, *Audubon’s Western Journal*, 155, which stated, “Mt. Graham, Arizona, bears his name”; Dan L. Thrapp, *Dictionary of Frontier Biography: G-O*, vol. 2 (Lincoln: Bison Books, 1991), 576; Howard Ensign Evans, *The Natural History of the Long Expedition to the Rocky Mountains, 1819-1820* (New York: Oxford University Press, 1997), 228.

²¹⁵ See Captain A. R. Johnston, “Journal of Captain A. R. Johnston, First Dragoons,” in Emory, *Notes of a Military Reconnoissance*, 589.

²¹⁶ Emory, *Notes of a Military Reconnoissance*, 132.

[Coyotero] and Mezcaleros [Mescalero], of the southern regions.”²¹⁷ Elsewhere in the report the mountain range was referred to as “Piñon Lano.” Emory described “A subterraneous stream [that] flowed at the foot of Mount Graham, and fringed its base with evergreen.”²¹⁸ Furthermore, he mentioned that Mount Graham was the only location throughout the Southwest where it rained.²¹⁹ Arguably the reason that they rarely encountered Apaches during their travels is because the Apaches were always in the mountains.

On August 15, 1846, Kearny issued a proclamation to the citizens of New Mexico to announce the U.S. occupation of the region.²²⁰ He ensured that religion and property rights would be respected, and payment would be given as compensation when necessary. But Kearny’s proclamation was to the Mexican settlers of the region, not the Indigenous peoples. Kearny made similar statements elsewhere: “My government . . . will keep off the Indians; protect you in your person and property; and, I repeat again, will protect you in your religion.” What Kearny wanted to make clear in 1846, at the beginning of his mission to secure and occupy New Mexico and California, was that the United States would protect white Christians and take a hostile stance against Apaches who “came down from the mountains”—at a time when Mount Graham still sat beyond the U.S. border in Mexico.²²¹

In another publication, Emory and the military officer, explorer, and eventual first Republican candidate for president, John C. Frémont, camped by Mount Graham, mentioned water at the base of the mountain, and mentioned the many signs of Indian life in the Pinaleno mountain chain. Kearny had noted that Apaches were always on “high peaks above the river.”²²² But Emory and Frémont “could not catch a glimpse of

²¹⁷ Granger, *Will C. Barnes’ Arizona Place Names*, 130; Emory, *Notes of a Military Reconnoissance*, 507.

²¹⁸ Emory, *Notes of a Military Reconnoissance*, 68.

²¹⁹ Emory, *Notes of a Military Reconnoissance*, 73.

²²⁰ For contemporary responses to Kearny’s proclamation, see Reginald Horsman, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism* (Cambridge: Harvard University Press, 1981), 239.

²²¹ Lockwood, *The Apache Indians*, 74.

²²² Lockwood, *The Apache Indians*, 78.

them.”²²³ Many of Emory’s words were republished from his *Notes of Military Reconnaissance* [sic.]. Noted Frémont and Emory, “The range of mountains traversed to-day is the same we have been in for some days, and is a continuation of that of Mount Graham, which turns sharply westward from Turnbull’s peak, carrying with it the Gila.”²²⁴ The authors paternalistically referred to the Apaches as “these children of the mountains.”²²⁵ There are constant references to the “Pinon Lano range of mountains.”²²⁶ The people with whom they come into contact “are of Pinon Lano (pinon wood) tribe, and we have been told by the Pinoleros (pinole eaters) that the chief of this band had mules.”²²⁷ In 1846, Hughes had mentioned that “The Apache Indians were continually making incursions from the mountains.”²²⁸ Bartlett mentioned “a great body of Pinal Lleños” that were Apache “strongholds” in the area.²²⁹ Indeed, the Apache lived in the mountains, were named after mountains, and were mentioned in numerous accounts throughout the nineteenth century.

By the end of the Mexican-American War, Apaches bore witness to a number of factors coming together: increasing numbers of white settlers, encroachment on their traditional homelands, and the changing of their landscape due to logging, mining, and farming. In January 1848, gold was discovered in California, creating boomtowns from small settlements, a population explosion, and a need to find secure overland routes for commerce and travel. Indeed, the government and financiers realized the need to establish good transportation routes between the east and west coasts.²³⁰ By the late 1840s and early 1850s, the landscape and history of the Apache were changing daily. Under the Treaty of Guadalupe-Hidalgo, which ended the Mexican-American War in

²²³ John C. Fremont and William H. Emory, *Notes of Travel in California; Comprising the Prominent Geographical, Agricultural, Geological, and Mineralogical Features of the Country; Also, the Route to San Diego, in California; Including Parts of the Arkansas, Del Norte, and Gila Rivers* (Dublin: James McGlashan, 1849), 181.

²²⁴ Fremont and Emory, *Notes of Travel in California*, 191.

²²⁵ Fremont and Emory, *Notes of Travel in California*, 192.

²²⁶ Fremont and Emory, *Notes of Travel in California*, 194.

²²⁷ Fremont and Emory, *Notes of Travel in California*, 196.

²²⁸ Hughes, *Doniphan’s Expedition*, 394.

²²⁹ Bartlett, *Personal Narrative of Explorations and Incidents*, 598.

²³⁰ Walter William Ristow, *American Maps and Mapmakers: Commercial Cartography in the Nineteenth Century* (Detroit: Wayne State University, 1985), 447-448.

1848, the United States acquired lands north of the Gila River, including portions of a vast region of the future states of California, Nevada, Utah, Wyoming, Colorado, New Mexico, and Arizona. From 1848 to 1855, after the Mexican-American War, Emory directed the survey of the U.S.-Mexico border. In 1853, with the Gadsden Purchase, the United States gained control of Mexican territory south of the Gila River, including Mount Graham. The population of the United States was expanding, as was the nation's thirst for resources and new markets. The Apaches, who had held their own against the Spanish and the Republic of Mexico, now faced an ever-growing interest in the lands on which they lived.

While the population estimates for Mexico and the U.S. in 1790 were five and four million, respectively, by 1830, the Mexican population increased to six million while the U.S. population jumped to 13 million. By 1845, however, the U.S. had 20 million people, by most accounts, to the 8 million people in Mexico.²³¹ With U.S. settlements in Utah, northern California, and Texas, as well as fur trappers in the Rockies and settlers, adventurers, and new businesses cropping up throughout much of the West, the U.S. was often both powerless and conciliatory toward expansion. "In the 1840s and 1850s there were obviously specific reasons why particular Americans desired Texas, Oregon, California, Cuba, Canada, and large parts of Mexico and central America," wrote historian Reginald Horsman. "Agrarian and commercial desires and the search for national and personal wealth and security were at the heart of mid-nineteenth-century expansion."²³² The scathing denunciations of the Apache race were accelerating. When combined with U.S. desires for land generally, and the acquisition of traditional Western Apache homelands, it was only a matter of time before the U.S. put into place a plan to control large portions of wilderness in Arizona, particularly Mount Graham and its fertile areas nearby.

In the 1850s, a German man named Baldwin Möllhausen accompanied Lieutenant A. W. Whipple to survey the railway to the Pacific Ocean along the 35th Parallel

²³¹ Robert J. Shafer and Donald J. Mabry, *Neighbors—Mexico and the United States: Wetbacks and Oil* (Chicago: Nelson-Hall, 1981), 29-30.

²³² Horsman, *Race and Manifest Destiny*, 6.

throughout the Southwestern United States and wrote about his travels.²³³ Like many surveyors of the day who used the tools of astronomy, he took note of the “comet of 1853” and other celestial events.²³⁴ The maps included in his diary included “Pinaleno Mts,” “Mt. Turnbull,” and the “Gadsen [sic.] Territory.” The Whipple Report described the “Pinal Leno” mountains.²³⁵ About the Apache country through which he travelled, he said, “The nation of the Apache Indians is one of the greatest and most widely diffused of New Mexico [including present-day Arizona], and comprehends numerous tribes scarcely known, even by name. According to the accounts of settlers in the country, as well as travellers, the Apache territory extends from 103° to 114° longitude west from Greenwich, and from 30° to 38° north latitude; but they are found roaming far beyond these limits.” That territory covers much of present-day western Texas, all of New Mexico and Arizona, northern Mexico, and southern Utah, Colorado, and California—the same areas into which the U.S. was settling and sought to colonize. Continued Möllhausen, there is “A certain touch of the chivalrous in the character of the American Indian cast of the mountains.”²³⁶ His comments point out to the sheer amount of territory that Apaches once roamed, the difficulty of knowing about Apaches since they were rarely understood or met, and the fact that Apaches lived on mountain ranges throughout the Southwest.

Möllhausen’s diary is noteworthy not only because of his references to Apache Indians. In his diary, he noted a tribe along the Colorado River that “witnessed the desecration of the graves of their most distinguished warriors” under a “sacred tree ... a sacred oak.”²³⁷ Such references are important in terms of Möllhausen’s references to the sacred, as well as his criticisms of “whites ... who have no claims to be ranked among the

²³³ Robert Taft, “The Pictorial History of the Old West: VI: Heinrich Balduin Möllhausen,” *Kansas Historical Quarterly*, vol. 16, no. 3 (Aug 1948), 225-244, http://www.kancoll.org/khq/1948/48_3_mollhaus.htm.

²³⁴ Baldwin Möllhausen, *Diary of a Journey from the Mississippi to the Coasts of the Pacific with a United States Government Expedition* (London: Longman, Brown, Green, Longmans, & Roberts, 1858), 345.

²³⁵ Granger, *Will C. Barnes’ Arizona Place Names*, 130.

²³⁶ Baldwin Möllhausen, *Diary of a Journey from the Mississippi to the Coasts of the Pacific with a United States Government Expedition*, vol. 2 (London: Longman, Brown, Green, Longmans, & Roberts, 1858), 11.

²³⁷ Möllhausen, *Diary of a Journey*, 248-249.

civilised [sic.]” for having disrespected Indian sacred places. He said that it would not be long “before a reason is found or invented for beginning a war of extermination against the hitherto peaceful Indians.”²³⁸ His concerns were well-founded and played out repeatedly during the nineteenth century, especially regarding Mount Graham. The resource materials regularly being found were too important to an increasing U.S. population.

In fact, Dr. Michael Steck, the Indian agent for “All Southern Apaches” from 1855 to 1860 stated, “There is no comparison, therefore, between the cost of a pacific policy and that of whipping [Apaches] into subjection.... The department will be compelled, therefore, in the end to choose between the policy of feeding them and providing for their wants, and that of their total extermination.”²³⁹ Like nearly all military personnel at the time, Steck noted the resources on Apache land. “The Pinal Coyoteros occupy the country watered by the Salinas and other tributaries of the Gila. They take their name from the Pinal Mountain, in and around the base of which they live. Their country is also rich in timber and fertile valleys,” stated Steck.²⁴⁰ The first map of the Arizona Territory was created in 1865 and also noted the “Pinaleno Mountains,” as well as “Mt. Graham,” “Mt. Trumble [sic.],” and “Fort Goodwin,” a malaria-infested post and future abandoned camp that was established a year earlier in the Gila Valley. The “Chi-ri-ca-hua [Chiricahua] Apaches” were listed over Mount Graham on the map.²⁴¹ The mountains, the resources, and the Apaches who lived on the material wealth of the Southwest were often at the center of land struggles during the next 20 years, especially after the 1862 Homestead Act encouraged white settlers onto native lands in Arizona and elsewhere.²⁴²

The comments of Major John C. Cremony who lived among the Apaches in the late 1860s are especially useful to establishing Apache connections to mountains and

²³⁸ Möllhausen, *Diary of a Journey*, 249.

²³⁹ Lockwood, *The Apache Indians*, 95.

²⁴⁰ Lockwood, *The Apache Indians*, 98.

²⁴¹ Richard Gird, “Official Map of the Territory of Arizona. With all The Recent Explorations,” *Gird's Official Map of the Territory of Arizona* (San Francisco: A. Gensoul, Pacific Map Depot, and Lith. Britton & Co., 1865).

²⁴² Homestead Act, 1862.

their longstanding connection to the Southwest. Cremony stated, “They do not call themselves ‘Apaches,’ but *Shis-Inday*, or ‘Men of the Woods,’ probably because their winter quarters are always located amidst the forests which grow upon the sierras, far about the plains, and while they afford fire and shelter from the wintry blasts, enable them to observe all that passes in the vales below.”²⁴³ Apache, according to Cremony, “unhesitatingly state that they have always lived in the same country, and been the same unmixed people.”²⁴⁴ While working with Apaches, Cremony observed important religious ceremonies for “when girls attain the age of puberty.” However, the fears among Apaches that the resource wealth of their lands would be taken by outsiders weighed heavy on them:

The Apaches entertain the greatest possible dread of our discoveries of mineral wealth in their country. They have had experience enough to assure them that the possession of lucre is the great incentive among us to stimulate what is termed “enterprise.” They know and feel that wherever mineral wealth exists to such an extent as to render it available, the white man fastens upon it with ineradicable tenacity. The massacre of the pioneer set does not deter another company from experimenting in the same engaging field. These localities are always rendered more valuable by the proximity of wood and water, two scarce articles in Arizona. The occupation of mines involves the possession of water facilities and sufficient fuel. To occupy a water privilege in Arizona and New Mexico is tantamount to driving the Indians from their most cherished possessions, and infuriates them to the utmost extent. If one ... should ... seize upon one of their few water springs, he is rated a common and dangerous enemy, whose destruction it is the duty of all the tribe to compass.²⁴⁵

Few authors of the nineteenth century more accurately and acutely summed up Apache beliefs and feelings regarding their land, their mountains, and their willingness to struggle to maintain control over their lives and land. That an observer was so easily able to ascertain this information decades before the creation of mining districts, forest reserves, and scientific explorations, points to the fact that the “settlers,” military, and U.S. government had no interest in protecting Apaches or their land. In fact, in the years following this comment, the local population, coupled with the U.S. military and

²⁴³ John C. Cremony, *Life Among the Apaches* (San Francisco: A. Roman & Company, 1868), 243.

²⁴⁴ Cremony, *Life Among the Apaches*, 263.

²⁴⁵ Cremony, *Life Among the Apaches*, 286-287.

military-related businesses in Arizona, created reservations, brought together disparate and unwilling Apache groups, took away reservation land as resources were discovered, and committed well-known atrocities such as the Camp Grant Massacre.²⁴⁶ The struggle for Mount Graham in particular during and since the nineteenth century is the history of the occupation, pilfering, and exploitation of Apache lands for at least the last 150 years.

It is no wonder that the Apaches resisted government advances on their land. As Cremony noted, “Our own dealings with the nomads of North America have been but so many chapters of the same record.” Questioned Cremony, “What has our Government ever done, in a concerted, intelligent and liberal spirit, to acquire a definite knowledge of Indian character, as it exists among the tribes which wander over more than one-half the public domain?”²⁴⁷ As far as Cremony was concerned, the “Indian Bureau” was somewhat useless and white settlers were to blame for “inciting” violence and perpetuating “injustices” against Apaches along the frontier.²⁴⁸ Cremony suggested a change in the workings of the “Indian Bureau.”

In other publications, Cremony pointed out that the land on which the Apaches lived was vital to the national interests of the United States, but again noted the lack of knowledge about the Apaches who lived on the land.²⁴⁹ Cremony’s observations were regularly proven true. For example, General James H. Carleton, who once served under Kearny on the Rocky Mountain Expedition of 1846, frequently made comments about the wealth of the Southwest. In one instance, according to a member of the Boundary Commission, he even illegally seized a silver mine and retained its owner as a “political prisoner” for six months.²⁵⁰ In his role as the commander of the military department in

²⁴⁶ See especially <http://www.brown.edu/Research/Aravaipa/>, but also Chip Colwell-Chanthaphonh, *Massacre at Camp Grant: Forgetting and Remembering Apache History* (Tucson: University of Arizona Press, 2007); Karl Jacoby, *Shadows at Dawn: A Borderlands Massacre and the Violence of History* (New York: The Penguin Press, 2008); Ian Record, *Big Sycamore Stands Alone: The Western Apaches, Aravaipa, and the Struggle for Place* (Norman: University of Oklahoma Press, 2008).

²⁴⁷ Cremony, *Life Among the Apaches*, 312

²⁴⁸ Cremony, *Life Among the Apaches*, 312-313.

²⁴⁹ John C. Cremony, “The Apache Race,” *The Overland Monthly*, vol. 1, no. 3 (Sep 1868), 203.

²⁵⁰ Sylvester Mowry, *Arizona and Sonora: The Geography, History, and Resources of the Silver Region of North America*, 3rd ed. (New York: Harper & Brothers, 1866), 62-63.

New Mexico and Arizona, Carleton noted “the vast mineral resources of Arizona,” a comment found in many of his writings.²⁵¹

Various governments, militaries, and businesses have always sought resources and wealth on Apache lands. During the Civil War, both the Confederate and Union Armies hoped to secure the riches of Arizona. An officer in the Confederate Army noted, “The vast mineral resources of Arizona, in addition to its affording an outlet to the Pacific, make its acquisition a matter of some importance to our government, and now that I have taken possession of the Territory, I trust a force sufficient to occupy and hold it will be sent by the government, under some competent man.”²⁵² In fact, near Mount Graham, Carleton established “Fort Goodwin ... in 1864 for the purpose of overawing the Chiricahua and Pinal and White Mountain Apache Indians,” driving them from their lands, and extracting wealth from the region. In fact, Carleton attempted “to ‘clean out’ the Apaches root and branch” from their homelands in the Southwest.²⁵³ About the Apaches, Cremony noted that “The Chiricahui [Chiricahua], Rio Mimbres, El Pinal, and other branches of the tribe receive their nomenclatures from the localities in which they generally met.”²⁵⁴ Indeed, what is important is that multiple Apache groups were named after the mountain ranges through which they roamed. And as both Carleton and Cremony noted, the Apache possessed “the richest mineral region in the Union.”²⁵⁵

Other visitors to the Southwest noted the sacred landscape and the Apache connections to mountain lands. An author named Hyancinth discussed the “sacred Gila,”

²⁵¹ Fred C. Ainsworth and Joseph W. Kirkley, *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, Series III, vol. III (Washington: Government Printing Office, 1899), 24.

²⁵² John R. Baylor to Capt. T. A. Washington, C. S. Army, 2 Aug 1861; John R. Baylor to Earl Van Dorn, C. S. Army, 14 Aug 1861; Fred C. Ainsworth and Joseph W. Kirkley, *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, Series I, vol. IV (Washington: Government Printing Office, 1902), 23. Martha J. Lamb, ed., *Magazine of American History with Notes and Queries*, vol. XV (Jan-Jun 1886), 172-173. See James Henry Carleton, *The Battle of Buena Vista, With The Operations of the ‘Army of Occupation’ for One Month* (New York: Harper and Brothers, 1848).

²⁵³ Mowry, *Arizona and Sonora*, 67.

²⁵⁴ Cremony, “The Apache Race,” 203.

²⁵⁵ Cremony, “The Apache Race,” 204.

the “sacred country,” and the use of the “sacred Gila for water.”²⁵⁶ In 1871, José Mendivil noted that the Apaches, after visiting “Zuñis ... return to their mountain fastnesses.”²⁵⁷ Frederick Schwatka mentioned the Apache use of cliffs and caves, as well as the caves on mountains where Apaches lived.²⁵⁸ Even General Oliver Otis Howard, who played a large role in the creation of Apache reservations in Arizona (and the Freedmen’s Bureau and Howard University) noted that “the other five Apaches [were] distinguished by the rivers or mountains where their people roamed.”²⁵⁹ The Apaches “have passed to the mountains without the least hindrance,” remarked Howard.²⁶⁰ Indeed, the Apaches were mountain people. In 1872, Howard was responsible for taking several Apaches and members of other tribes to New York City, Philadelphia, and Washington, D.C., where they met President Ulysses S. Grant. Aboard the train to the east coast, “Meguil, a White Mountain Apache who had lost an eye in combat, told Howard in a resigned voice that he could no longer count the mountains; he would have to rely on the general to lead him back to his homeland.”²⁶¹ Chiricahua Apache Cochise told Howard, “we were once a large People, covering these mountains.” Chie, Howard’s guide, was able to say “yes, sir,” and “Milky-Way” in English, proof of the astronomical knowledge that connected white Americans and Apaches.²⁶²

The U.S. military was hell-bent on destroying Apache land connections, as well as the will of Apaches, at any cost. The military knew that attacking the land would hurt

²⁵⁶ Socrates Hyacinth, Jr., “An Arizona Legend,” in *Magazine Articles on the Apache Indians*, v. 1868-1887, Newberry Library.

²⁵⁷ José Mendivil, “A Ride with the Apaches,” in *Magazine Articles on the Apache Indians*, v. 1868-1887, Newberry Library, Apr 1871: 344.

²⁵⁸ Frederick Schwatka, unpublished article, “Among the Apaches,” in *Magazine Articles on the Apache Indians*, v. 1868-1887, Newberry Library, n.d.: 47, 50.

²⁵⁹ O. O. Howard, “Our Indians of the Southwest,” *The United Service*, vol. II, no. 5, in *Magazine Articles on the Apache Indians*, v. 1868-1887, Newberry Library, 526.

²⁶⁰ O. O. Howard, *My Life and Experiences Among Our Hostile Indians: A Record of Personal Observations, Adventures, and Campaigns Among the Indians of the Great West* (Hartford, CT: A. D. Worthington & Company, 1907), 221; Lockwood, *The Apache Indians*, 121.

²⁶¹ David Roberts, *Once They Moved Like the Wind: Cochise, Geronimo, and the Apache Wars* (Clearwater, FL: Touchstone, 2005), 96. See also, Howard, *My Life and Experiences Among Our Hostile Indians*, 174.

²⁶² Howard, “Our Indians of the Southwest,” 546. According to Edward Curtis, Apaches believe that “The Milky Way is the path of all souls to the after-world.” See Edward S. Curtis, *The North American Indian: Being a Series of Volumes Picturing and Describing The Indians of the United States and Alaska*, vol. 1 (Cambridge: The University Press, 1907), 134.

the Apache people's spirit and emotional state. In one instance, Lieutenant Colonel John Green sent troops to destroy Apache cornfields—an effort that went against the government's desire to have Apaches farm. Green ordered the destruction of cornfields on July 27 and July 31, 1869. Noted Green,

At least one hundred acres of fine corn, just like silk, were destroyed, and it took the command nearly three days to do it. I was astonished, and could hardly believe that the Apache Indians could and would cultivate the soil to such an extent; and when we consider their very rude implements, and the great labor it requires to dig the *acequias* [sic.] for irrigation, one cannot help but wonder at their success. Their fields compare very favorably with those of their more civilized brethren.²⁶³

Green elaborated on his scorched-earth policies and then suggested: “I believe the Apache, if properly managed, could be used against the Apache, and so end the war in short time.”²⁶⁴ He boasted again about the destruction of corn, before signing his report. The U.S. military went on to enlist Apache scouts to find Geronimo and other Apache Indians who resisted U.S. governmental policies. Bourke recounted how the military and General Crook used Apaches: “‘Ka-e-ten-na’ and ‘Alchise’ had been busy at work among the hostiles, dividing their councils, exciting their hopes, and enhancing their fears.” Divide and conquer strategies proved successful and eventually both the scouts who worked for the U.S. military and Geronimo were sent to prison in Florida.²⁶⁵

William Bell surveyed the Southwest for a proposed railroad in the late 1860s. According to the map of his travels, he journeyed through or just south of the “Pina-leño” Mountains.²⁶⁶ Early on in his book, Bell mentioned the difficulties that the “settlers [and] the military” are having with the Apaches and inquires, “Is the country always to remain a wilderness?”²⁶⁷ After describing “The Rio Gila [that] cuts through the Pina-leño

²⁶³ John Green, *Interesting Scout Among White Mountain Apaches, Some of Whom Sue for Peace and a Reservation*, Headquarters Camp Grant, A.T [Arizona Territory], 20 Aug 1869: 3. Also found in: Office of the Commissioner of Indian Affairs, *Report of the Commissioner of Indian Affairs for the Year 1869* (Washington: Government Printing Office, 1870), 103.

²⁶⁴ Green, *Interesting Scout Among White Mountain Apaches*, 4.

²⁶⁵ Bourke, *On The Border with Crook*, 484-485.

²⁶⁶ William A. Bell, *New Tracks in North America: A Journal of Travels and Adventure Whilst Engaged in the Survey for a Southern Railroad to the Pacific Ocean During 1867-8*, vol. 1 (London: Chapman & Hill, 1869), liii.

²⁶⁷ Bell, *New Tracks in North America*, vol. 1: lv.

Mountains North of Camp Grant by means of a succession of canons,” Bell noted that by 1869, there were numerous Mormon settlements in the area.²⁶⁸ Wrote Bell, “The Apaches never seemed to have lived there [Northern Sonora], but their custom was to descend in bands along the whole length of the Pina-leño and Chi-ri-ca-hui Mountains, which, so to speak, form a bridge two hundred miles long across the Madre Plateau from the mountains north of the Rio Gila to the Sierra Madre of Mexico.”²⁶⁹ Bell pointed out the significance of these mountain ranges: “Against such an enemy [as the Apaches, Mexicans] were almost powerless, for the mountain fastness from which [Apaches] came lay far away to the north.” Later on, Bell discussed Captain Tidball and the 1863 massacre of approximately 50 Apaches, for which the 1871 Camp Grant Massacre was almost a carbon copy.²⁷⁰ About Mount Graham, Bell stated, “Opposite the Dos Cabezas, and forming the northern boundary of the pass, is another fine mass, named Mount Graham, which is the southern extremity of that continuation of the range northward called by another name, the Pina-leño Mountains.”²⁷¹

Arizona was created as a Territory by Congress in 1863. The legislature of the Arizona Territory was increasingly interested in Apache life. Legislative reports in the 1860s and 1870s make a point of noting the “mineral wealth” on lands occupied by Apaches: gold, silver, copper, lead, coal, and salt, for example. For that reason, the Clifton-Morenci mining district, which touched the San Carlos Reservation boundaries, was established before 1872 and had a number of companies, including the Longfellow Mining Company and the Arizona Copper Company, operating within years of these

²⁶⁸ Bell, *New Tracks in North America*, vol. 1: lvi, lvii.

²⁶⁹ Bell, *New Tracks in North America*, vol. 1: 186.

²⁷⁰ Bell, *New Tracks in North America*, vol. 2: 67-68. See Andrew E. Masich, *The Civil War in Arizona: The Story of the California Volunteers, 1861-1865* (Norman: University of Oklahoma Press, 2006), note 9, 256. One of the reasons why the massacres are so similar is that Jesús María Elías fought with Tidball in 1863 and suggested the planned attack on Apaches in his elected role with the Arizona Territorial Assembly in 1871. See Dan Thrapp, *Encyclopedia of Frontier Biography*, vol. I (Norman: University of Oklahoma Press, 1994), 458. See also See Jacoby, *Shadows at Dawn*; www.brown.edu/Research/Aravaipa/; Colwell-Chanthaphonh, *Massacre at Camp Grant*; Jacoby, *Shadows at Dawn*; Record, *Big Sycamore Stands Alone*.

²⁷¹ Bell, *New Tracks in North America*, vol. 2: 55.

pronouncements.²⁷² Numerous other mining districts dotted the land near the San Carlos and Fort Apache reservations; these districts were often carved out of the reservations through executive orders. The plan of the legislature was simple: allow and encourage Arizona citizens and the U.S. military to kill Indians and populate the territory. In one legislative report, Anson Pacey Killen Safford, the “present Governor of the Territory” at the time, for whom the town of Safford that sits at the base of Mount Graham is named, presented testimony against the Apaches.²⁷³ Given the sentiments of the Arizona legislature and its actions, it is understandable how the Camp Grant Massacre occurred on April 28, 1871. In the wake of the massacre, Apaches “fled to the mountains” and realized again “that there were no white men who could be trusted.”²⁷⁴

Captain John G. Bourke, in his famous work, *On the Border with Crook*, noted the geography that Apaches knew well: “flowing streams far up in the mountains were perfectly well known to them.”²⁷⁵ While travelling in the Pinaleno Mountains, he stated, “crossing the Piñaleno to the south of the Aravaypa, and ascending until we reached the pine forest upon its summit.”²⁷⁶ Bourke commented about the Apache: “Everything had happened as the [Apache] squaw had predicted it would,” during their travels over the Piñaleno Mountains, “and she showed that she was familiar with the slightest details of the topography, and thus increased our confidence.” Bourke noted that their guide wanted the party to remain silent as the climbed higher into the mountains, a practice still

²⁷² James Colquhoun, *The Early History of the Clifton-Morenci District* (London: William Clowes and Sons, Limited, 1935), 12, 69-70, 79. See James R. Kluger, *The Clifton-Morenci Strike: Labor Difficulty in Arizona, 1915-1916* (Tucson: University of Arizona Press, 1970), 18; Thomas E. Sheridan, *Arizona... A History* (Tucson: University of Arizona Press, 1995), 167; Charles K. Hyde, *Copper for America: The United States Copper Industry from Colonial Times to the 1990s* (Tucson: University of Arizona, 1998), 117.

²⁷³ *Memorial and Affidavits Showing Outrages Perpetuated by the Apache Indians, in the Territory of Arizona, During the Years 1869 and 1870*, Published by Authority of the Legislature of the Territory of Arizona (San Francisco: Francis & Valentine, 1871), 3. (As an interesting aside, a former owner of the copy of this document at the Newberry Library in Chicago wrote in the margins, “outrageous lying misrepresentation” next to Safford’s testimony.) See entry for “Safford” in Granger, *Will C. Barnes’ Arizona Place Names*, 130.

²⁷⁴ Dunn, *Massacres of the Mountains*, 725, but also 721-726. See www.brown.edu/Research/Aravaipa/; Colwell-Chanthaphonh, *Massacre at Camp Grant*; Jacoby, *Shadows at Dawn*; Record, *Big Sycamore Stands Alone*.

²⁷⁵ Bourke, *On the Border with Crook*, 36.

²⁷⁶ Bourke, *On the Border with Crook*, 47.

maintained by Apaches travelling in the higher elevations near sacred places. “We walked slowly over the high mountains, and down into deep ravines, passing through a country which seemed well adapted for the home of the Indians. There were groves of acorn-bearing oaks, a considerable amount of mescal,” of which Bourke took note.²⁷⁷ Bourke mentioned the Apaches who live “in the mountains” and the mountains as “their [Apaches’] home.”²⁷⁸ “Apaches swarmed down from the mountains,” in one event recounted by Bourke. An Apache informant named Chihuahua said, “I have roamed these mountains from water to water.”²⁷⁹ Bourke noted that Apaches run everywhere—over steep mountains and through the desert—and their knowledge of the mountains was outstanding.²⁸⁰ In fact, for Apaches, running up to “Seventy-five miles a day was nothing at all unusual for them.”²⁸¹ About Mount Graham specifically, Bourke said, “the Graham Mountain, or Sierra Bonita, as known to the Mexicans, is well timbered with pine and cedar; has an abundance of pure and cold water, and succulent pasturage; there is excellent building-stone and adobe clay within reach, and nothing that could reasonably be expected is lacking.”²⁸² Indeed, as is the case with many nineteenth-century accounts, there are constant references to the mountains and to Apaches from the mountains in Bourke’s works.²⁸³

During a chapter of the book in which he describes General George Crook, who took command of the Department of Arizona in June 1871, and his latest “campaign against the Apaches,” Bourke mentions that they “wiped out all the band belonging to the cave” in the Superstition Mountains. Again, Apaches lived, retreated to, and intimately knew the Superstition and Mazatzal Mountains, the San Francisco Peaks, Mount Graham (“Sierra Bonita”), and other mountain ranges.²⁸⁴ The mountains acted as retreats from the

²⁷⁷ Bourke, *On the Border with Crook*, 48. Acorns and mescal plants a basic foods to Apache people.

²⁷⁸ Bourke, *On the Border with Crook*, 49, 144.

²⁷⁹ Bourke, *On the Border with Crook*, 479.

²⁸⁰ Bourke, *On the Border with Crook*, 125-126.

²⁸¹ Bourke, *On the Border with Crook*, 134. Also see, 467, 481.

²⁸² Bourke, *On the Border with Crook*, 207

²⁸³ Bourke, *On the Border with Crook*, 219, 233, 436, 442-443, 483,

²⁸⁴ Bourke, *On the Border with Crook*, 176, 199.

heat and warring parties of Indians and white soldiers.²⁸⁵ By 1873, however, Crook was having “remarkable success ... in conquering these tribes ... by fighting Apaches with Apaches.”²⁸⁶ His divide-and-conquer strategies were so effective that by 1875, the government was initiating cost-cutting measures and attempted to bring many Apache groups to San Carlos. Col. August Kautz noted that “The White Mountain Indians proper have been born and bred in the mountains.”²⁸⁷ Kautz also noted that many White Mountain Apaches wished to stay where they were and were apprehensive about any move to San Carlos. Kautz also noted that telegraph lines extended to “Camp Grant, San Carlos, and Apache, and thence to New Mexico.”²⁸⁸ These military telegraph lines between Camp Apache and “new” Camp Grant went over “Graham Mts.,” according to an official U.S. military map published in 1878 that noted Mt. Turnbull, Camp Thomas, and Camp Goodwin.²⁸⁹ The telegraph lines were one of many semi-permanent incursions in the mountains.

Descriptions of military posts from the 1870s in Arizona noted the links by telegraph lines between posts, but they also took note of the resources available on Mount Graham and elsewhere. Vincent Colyer, who travelled throughout the Southwest in the 1871 laying out reservations for the Indian Bureau, suggested that the “reservation on the Mimbres River ... be declared void” because of the “rich mineral country” and the settlement of “miners and settlers.”²⁹⁰ Because of the resources on Mount Graham, “in October 1872, Col. William B. Royall and a detachment of thirty men scouted in the vicinity of Mount Graham for a new location for the two hundred and seventy-five men

²⁸⁵ Bourke, *On the Border with Crook*, 147.

²⁸⁶ Dunn, *Massacres of the Mountains*, 731.

²⁸⁷ August V. Kautz, Department of Arizona, United States Army, United States, *Annual Report of Colonel August V. Kautz, (Eighth Infantry,) Brevet Major-General U.S. Army, Commanding Department of Arizona, for the Year Ending August 31, 1875* (Prescott, 1875), 9.

²⁸⁸ Kautz, *Annual Report*, 11.

²⁸⁹ *Map of Arizona Prepared Specially for R. J. Hinton's Handbook of Arizona Compiled from Official Maps of Military Division of the Pacific*, “Surveyor General's Office A. T. [Arizona Territory] from the notes of Col. W. G. Boyle, Col. J. D. Graham, H. E. Ehrenberg, Prof. Pumpelly, and Lieut. Philip Reade” (San Francisco: Payot, Upham & Company, 1878).

²⁹⁰ *Report of the Board of Indian Commissioners for the Year 1870* (Washington: Government Printing Office, 1871), 107. See also, Welch, “A *dzil nchaa si'an* Chronology,” 6.

stationed at Old Camp Grant.”²⁹¹ According to information furnished in April 1877 by Captain C. M. Bailey to General Irvin McDowell, “The nearest lumber fit for building purposes [for Camp Thomas] is twenty-five miles distant on Mount Graham, which affords from near its summit an abundance of pine.” Noted Bailey, “Old Camp Goodwin, seven miles west of the post, is considered the most unhealthy place in the Territory, and had to be abandoned on account of fever and ague.”²⁹² At Camp Grant (later Fort Grant on April 5, 1879), the commander of the post, C. C. Compton, furnished McDowell with the following information about Mount Graham: “Mount Graham, the highest peak of the Graham Mountains, is about twelve miles north of the post, and has an altitude of 10,516 feet above the sea level.” Continued Compton, the “Mountain tops furnish pine and spruce timber in an abundance, and of a size suitable for building purposes.”²⁹³

Indeed, by the 1870s, Mount Graham was regularly harvested for lumber and the Gila River Valley was turned into an oasis for rancher and farmers, especially Mormons who grew fruit trees such as apples, cherries, and plums, and planted vineyards.²⁹⁴ Graham County was established by the “Arizona legislature in the spring of 1881”; a Mormon presence was already significant near Fort Thomas, San Carlos, and Safford by the end of the year in 1880.²⁹⁵ Mormons also named “Columbine,” near the “top of Mt. Graham.”²⁹⁶ They took part in what one historian called the “Breaking the Wilderness.”²⁹⁷ Canals were created and many new food crops were introduced to the area. Of course, the military posts at Thomas, Grant, and Bowie purchased corn, barley, wheat, potatoes, turnips, cabbages, beets, melons and other fruits, pumpkins, onions, alfalfa, and grain hay. According to a report by the Commissioner of Immigration for the

²⁹¹ Granger, *Will C. Barnes' Arizona Place Names*, 128.

²⁹² Major-General Irvin McDowell, *Outline Descriptions of Military Posts in the Military Division of the Pacific* (San Francisco: Presidio of San Francisco, 1879), 18, 97.

²⁹³ McDowell, *Outline Descriptions of Military Posts*, 10. See also, “*Map of the Military Reservation at Fort Grant; Diagram of the Post*,” 1886.

²⁹⁴ Patrick Hamilton, *The Resources of Arizona: Its Mineral, Farming, Grazing and Timber Lands; Its History, Climate, Productions, Civil and Military Government, Pre-Historic Ruins, Early Missions, Indian Tribes, Pioneer Days, Etc., Etc.*, 3rd ed., revised (A. L. Bancroft & Company, Printers, 1884), 335.

²⁹⁵ McClintock, *Mormon Settlement in Arizona*, 246.

²⁹⁶ McClintock, *Mormon Settlement in Arizona*, 282. See also, Allen Bertell Weech and Cherrel B. Weech, *A History of Mount Graham* (2000; Safford, AZ: privately published, 2003).

²⁹⁷ McClintock, *Mormon Settlement in Arizona*, 250-251.

Arizona Territory, Patrick Hamilton, “The farmers in this valley are fortunate in having such good markets close at hand.”²⁹⁸ It was a “lucrative market for all that is grown.”²⁹⁹ But Hamilton bemoaned that “As nearly one fourth of Graham county is included in the San Carlos Indian reservation, some of the richest lands . . . are occupied by these savages and closed against the industrious settler.” The author noted that “The first settlement by Americans was made about twelve years” earlier.³⁰⁰ Hamilton waxed poetic about the area: “It is as pretty a picture as one would care to look upon; and in the early spring, when the summits of Mount Graham are yet wrapped in their snowy mantle, and when the valley smiles in all the glory of waving grain, blooming alfalfa, and blossoming orchard, the sight is one to inspire the painter’s brush or the poet’s pen.”³⁰¹ Indeed, the landscape of the Apache homeland was changing.

Noted anthropologist Adolf Bandelier traveled throughout the Southwest. His journals in the 1880s include numerous references to Mount Graham and the areas around it, and supported earlier visitors’ descriptions of the mountain.³⁰² In 1883, he stated, “I am told that there are ruins on the very top of Mount Graham.”³⁰³ About the water that came from Mount Graham, Bandelier wrote, “From the foot of Mount Graham living streams run down to within five to six miles of the Gila, but they all sink at that distance from the river.”³⁰⁴ Mount Graham, or Sierra Bonita, as he sometimes referred to it, was usually “covered with deep snow.”³⁰⁵

Indian agents who described life at San Carlos in the 1880s, took note of the importance to Apache people of the surrounding mountains. According to one report, “the Apaches bury their [dead] under the rocks in the mountains, heaping brush above to

²⁹⁸ Hamilton, *The Resources of Arizona*, 334.

²⁹⁹ Hamilton, *The Resources of Arizona*, 336.

³⁰⁰ Hamilton, *The Resources of Arizona*, 333.

³⁰¹ Hamilton, *The Resources of Arizona*, 335.

³⁰² Adolph F. Bandelier, *The Southwestern Journals of Adolph F. Bandelier, 1880-1882* (Albuquerque: The University of New Mexico Press, 1966), 39.

³⁰³ Adolph F. Bandelier, *The Southwestern Journals of Adolph F. Bandelier, 1883-1884* (Albuquerque: The University of New Mexico Press, 1970), 98.

³⁰⁴ Bandelier, *The Southwestern Journals...*, 1883-1884, 99.

³⁰⁵ Bandelier, *The Southwestern Journals...*, 1883-1884, 214, 218, 220, 387 n. 245.

mark the spot.”³⁰⁶ Agent Frederick Lloyd at San Carlos noted that “Foot-racing is another pastime much enjoyed by them [Apaches].” Other than government rations, according to Lloyd, “they have the surrounding mountains and valleys, rich in game, from which to draw.... Vension [sic.] is their favorite wild meat.”³⁰⁷ Lloyd mentioned that Apaches used acorns to create soups and other food, while also noting the number of malarial cases because of the location of the camp at San Carlos.³⁰⁸ Running and the use of the mountains for food and other activities would again become important to Apaches at the end of the twentieth century as they reestablished connections to these high places.

One of the most interesting early sources on the lives, habits, and customs of Apaches was in a report of travels made throughout the Southwest by the Indian Rights Association, an organization founded in 1882 that considered themselves “friends of the Indian,” but in fact had little understanding of the culture and needs of American Indians. The result of travels throughout the Southwest in 1883 by Samuel C. Armstrong—the founder of the Hampton Institute in Virginia—was one of the first reports of the organization. One comment by Armstrong is especially useful because it challenges what astronomers and some scholars said more than 100 years after this report: “The Apaches *par excellence* [sic.] are mountain Indians.”³⁰⁹ Like most white American visitors to the Southwest who commented on Apache land, Armstrong noted the rich resources:

The large and valuable deposits of coal lying in the Southern extremity of the Apache reservation unused, while the citizens of Arizona are bringing their fuel from a distance, is a great grievance, an injustice to whites, which Congress should promptly remedy by renting these coal lands to the highest bidder, the royalty from which would meet the expense of caring for the Apaches. The Indian Department has strongly recommended this course.³¹⁰

³⁰⁶ Frederick Lloyd to Medical Director, Department of Arizona, Whipple Barracks, Prescott, A.T., from San Carlos Agency, Arizona, 10 Feb 1883: 2.

³⁰⁷ Lloyd to Medical Director, 5.

³⁰⁸ Lloyd to Medical Director, 6, 8.

³⁰⁹ S. C. Armstrong, *Report of a Trip Made in Behalf of the Indian Rights Association to Some Indian Reservations of the South West* (Philadelphia: Office of the Indian Rights Association, 1884), 8. Emphasis in original. See also, Donal F. Lindsey, *Indians at Hampton Institute, 1877-1923* (Urbana: University of Illinois Press, 1995), esp. chapter three, “Armstrong’s Influence on National Indian Policy,” 57.

³¹⁰ Armstrong, *Report of a Trip Made in Behalf of the Indian Rights Association*, 10.

Such Indian policies were followed throughout since at least the nineteenth century. In the case of Mount Graham and the San Carlos and Fort Apache reservations, such insights by Armstrong and others helped to reduce the size of the reservations as new resources were located on Indian land.³¹¹ In the late nineteenth century, the Indian Rights Association sent another delegate to the Southwest whose first visit was to see Geronimo at Fort Sill.³¹²

Eventually a racket that included the citizens and businessmen of Arizona, working with the U.S. military, took the fight to the Apaches. Bourke wrote,

The prospects of the Apaches looked especially bright, and there was hope that they might soon be self-sustaining; but it was not to be. A “ring” of Federal officials, contractors, and others was formed in Tucson, which exerted great influence in the national capital, and succeeded in securing the issue of peremptory orders that the Apaches should leave at once for the mouth of the sickly San Carlos, there to be herded with the other tribes. It was an outrageous proceeding, one for which I should still blush had I not long since gotten over blushing for anything that the United States Government did in Indian matters.³¹³

These were efforts to make the Indians dependent on a special interest group from Tucson. Such efforts foretold the coming of the military industrial complex to Southern Arizona. Crook was moved to Nebraska in 1875, but was reassigned to Arizona in 1882. When Crook returned to Arizona, things were supposedly in such a bad state, according to Bourke, “that it would have been better in some sense had they [Apaches] all left the reservation and taken to the forests and mountains.”³¹⁴ Crook would, however, help bring the “Apache Wars” and campaigns to an end.

But the issue of land rights always came to the front of the Apache struggles with the various and sometimes competing interests in the Southwest. About the character of the Apaches in Arizona, Bourke stated, “The American Indian despises a liar. The American Indian is the most generous of mortals.”³¹⁵ An Apache, according to John

³¹¹ Welch, “A *dzil nchaa si’an* Chronology,” 6-7.

³¹² Francis E. Leupp, “Notes of a Summer Tour Among the Indians of the Southwest,” no. 43, Second Series 3000, in *Indian Rights Association Tracts* (Philadelphia: Office of the Indian Rights Association, 1897).

³¹³ Bourke, *On the Border with Crook*, 216-217.

³¹⁴ Bourke, *On the Border with Crook*, 433

³¹⁵ Bourke, *On the Border with Crook*, 226

Bourke, “can argue well from his own standpoint, cannot be hoodwinked by sophistry or plausible stories, keeps his word very faithfully, and is extremely honest in protecting property or anything placed under his care.” In other words, Apaches are good stewards of protecting and caring for mountains.³¹⁶ In comments similar to those made earlier by Cremony, Bourke wrote, “No one had ever heard the Apaches’ story, and no one seemed to care whether they had a story or not.” According to Bourke,

Had the Apaches had a little more sense they would have perceived that the whole scheme of Caucasian contact with the American aborigines—at least the Anglo-Saxon part of it—has been based upon the fundamental maxim of politics so beautifully and so tersely enunciated by the New York alderman—“The ‘boys’ are in it for the stuff.” The “Tucson ring” was determined that no Apache should be put to the embarrassment of working for his own living; once let the Apaches become self-supporting, and what would become of “the boys”? Therefore, they must all be herded down on the malaria-reeking flats of the San Carlos, where the water is salt and the air poison, and one breathes a mixture of sand-blizzards and more flies than were ever supposed to be under the care of the great fly-god Beelzebub. The conventions entered into with General Howard and Vincent Collyer [Colyer], which these Apaches had respected to the letter—nay, more, the personal assurances given by the President of the United States to old “Pedro” during a visit made by the latter to Washington—were all swept away like cobwebs, while the conspirators laughed in their sleeves, because they knew a trick or two worth all of that. They had only to report by telegraph that the Apaches were “uneasy,” “refused to obey the orders of the agent,” and a lot more stuff of the same kind, and the Great Father would send in ten regiments to carry out the schemes of the ring, but he would never send one honest, truthful man to inquire whether the Apaches had a story or not.

It is within the limits of possibility, that as the American Indians become better and better acquainted with the English language, and abler to lay their own side of a dispute before the American people, there may be a diminution in the number of outbreaks, scares, and misunderstandings, which have cost the tax-payers such fabulous sums, and which I trust may continue to cost just as much until the tax-payer shall take a deeper and more intelligent interest in this great question.³¹⁷

As Bourke attempted to articulate, the Apaches had learned to forcefully express their case in English. There was by the last decades of the nineteenth century both a war of violence and a war of words. The white Americans had fallen short in their duties, but the

³¹⁶ Bourke, *On the Border with Crook*, 124.

³¹⁷ Bourke, *On the Border with Crook*, 437-438.

Tucson ring would rise again in the late twentieth century to have a large effect on Apaches' lives.

Apaches were getting shortchanged, Bourke told the reader, out of everything they deserved. There was no justice for Apaches. Many people and business interests were profiting from the Apaches and their land. Whites were constantly feeding lies to the Apaches, Bourke argued. Mormon farmers “trespassed upon the fields already cultivated by the Apaches.”³¹⁸ Bourke cited a letter from Crook to Mr. Herbert Welsh, Secretary of the Indian Rights Association in Philadelphia: “[The American Indian] is fully able to protect himself if the ballot be given, and the courts of law not closed against him.”³¹⁹ Crook saw first-hand the troubles Apaches faced. In an annual report, he stated, “Greed and avarice on the part of the whites—in other words, the almighty dollar—is at the bottom of nine-tenths of all our Indian trouble.”³²⁰ Nonetheless, at one point General Philip Sheridan asked if Crook will “give protection to the business interests of Arizona and New Mexico.” Crook responded that “It has been my aim throughout present operations to afford the greatest amount of protection to life and property interests.” Neither Sheridan nor Crook afforded any protection to the life and property interests of the Apaches. Furthermore, their emphasis on white property interests in the 1880s is not unlike the efforts followed a century later.³²¹ As Bourke put it, “Arizona ... owed [Crook] a debt of gratitude for his operations against the hostile tribes which infested their borders and rendered life and property insecure.” Bourke’s biography of Crook made plainly clear: the property issue was at the forefront of the U.S. wars against the Western Apache; it was always about land.³²²

By the late 1880s, the U.S. military was beginning to see the problems associated with the selection of the reservation and living conditions at San Carlos. General Nelson A. Miles noted not only the deplorable living conditions but also the mountainous terrain through which Apaches traveled. He discussed Apaches traveling over a mountain in

³¹⁸ Bourke, *On the Border with Crook*, 441.

³¹⁹ Bourke, *On the Border with Crook*, 459.

³²⁰ Bourke, *On the Border with Crook*, 464.

³²¹ Bourke, *On the Border with Crook*, 483.

³²² Bourke, *On the Border with Crook*, 490.

October 1886 with the U.S. military in pursuit. He gave a list of the mountain peaks traversed, eventually stating that the Apaches “took to the mountains.”³²³ At one point, troops likely passed through the Pinaleno Mountains to get back to San Carlos with Apaches on foot.³²⁴ About San Carlos, Miles wrote:

Regarding the condition of affairs on the San Carlos reservation, I found that from one thousand to twelve hundred Indians had left their camps, abandoned their fields and congregated at the Place called Coyote Holes, where they are assuming a most threatening attitude. It was, in my opinion, a serious mistake to locate such a large number of Indians at San Carlos, Arizona, 100 miles from railroad communication . . . besides requiring the Indians to live in a sickly region entirely unsuited to them, and depriving them of the privilege of living in the section where they were born and from which they were ruthlessly removed.”³²⁵

In Appendix A of Miles’ report, he notes in a letter the “mountainous, arid reservation [at San Carlos].” According to Miles, “It was a mistake to place different tribes—Yumas, Mojaves, Tontos, San Carlos, Coyoters and White Mountain—on one reservation.”³²⁶ Not only were the living conditions at San Carlos poor at best, but the military had no knowledge of the disparate people they brought together; the government did not care about the treatment of Apaches; and the military and business interests considered them a problem—an “Apache problem,” in fact. In another letter, Miles writes about the “high mountain ranges” that the Apaches traveled to return to San Carlos.³²⁷ In his conclusion, Miles bemoaned “the whole history of these Indians since they were unwisely congregated together at San Carlos by methods at least questionable.”³²⁸ Nevertheless, as Miles noted, the knowledge of the landscape, especially the mountains, was commonplace among Apaches. Indeed, Apaches lived, traveled through, and had an impressive knowledge of the mountains. The knowledge that Apaches possessed about

³²³ Nelson A. Miles, *Annual Report of Brigadier General Nelson A. Miles, U.S. Army, Commanding Department of Arizona, 1887*, in Everett D. Graff Collection of Western Americana, Newberry Library, 1.

³²⁴ Miles, *Annual Report*, 4.

³²⁵ Miles, *Annual Report*, 5.

³²⁶ Miles, *Annual Report*, Appendix A, 1.

³²⁷ Miles, *Annual Report*, Appendix A, 4.

³²⁸ Miles, *Annual Report*, Appendix A, 6.

their traditional culture properties was not enough to stop the ever-growing interest in Apache lands.

Executive Order Reservations: The Creation of New Indian and Forest Reserves³²⁹

The numerous executive orders that created, then divided, and eventually reduced the size of the Apache reservation, ultimately removing Mount Graham from within reservation boundaries, were truly for the control of Apaches, governmental dominance of the landscape, and oftentimes the extraction of mineral resources from the Southwest.³³⁰ “Mount Graham was a central part of our ancestral home grounds,” wrote all elected members of the San Carlos Apache tribal council in 1992. The mountain was a part of the initial Apache reservation until 1873, when “the [Mormon] settlers in neighboring Safford asked for and received a Presidential Executive Order that took Mt. Graham and the surrounding area from the Apache people.”³³¹ In fact, Mount Graham, the town of Safford, and the Gila Valley were once a part of the Apache reservation established in 1871. According to the San Carlos Apache Tribe, “many questionable executive orders (presidential) since 1871 have shrunk the reservation piece by piece. The best reservation lands have been given to Anglo settlers and developers. As rich farmland, timber and mineral resources were discovered land was stripped from the reservation. Globe, for example, was part of the reservation until silver was discovered on it in the 1870s.”³³² Mount Graham was at the center of a huge shift in governmental policies that occurred in 1871.

On March 3, 1871, Congress halted U.S.-Indian treaty-making, ceding control over Indian affairs to the president and thereby decimating Indian people’s

³²⁹ Thanks to John Welch and documents from the White Mountain Apache Tribe’s Historic Preservation Office for help sorting out the various executive orders regarding Western Apache lands. See also J. Kappler, ed., *Indian Affairs: Laws and Treaties*, vol. 1 (LAWS), 2nd ed. (Washington: Government Printing Office, 1904).

³³⁰ Welch, “A *dzil ncha si’an* Chronology,” 6-8.

³³¹ The San Carlos Apache Tribe to Ms. Jutta Muller, letter, 24 Aug 1992, 2. See also John Dougherty, “Making a mountain into a starbase: The long, bitter battle over Mount Graham,” *High Country News*, 27, no. 13 (24 Jul 1995).

³³² “Apaches part of Americas run,” *San Carlos Apache Moccasin (Keban)* (Globe, AZ), 25 Aug 1992.

sovereignty.³³³ In the wake of this pronouncement, a series of executive orders changed the way of life for Western Apache people and their traditional homelands. President Ulysses S. Grant's Executive Order of November 9, 1871, established the White Mountain Reservation and enacted a policy to compel all Western Apaches to remain within reservation boundaries or suffer pursuit.³³⁴ The Commissioner of Indian Affairs wrote that during an "interview with Apache chiefs, held at Camp Grant," he was told that this area "has always been their home."³³⁵ In 1871, Mount Graham formed the southern boundary of the Apache reservation, similar to the ways in which some mountain ranges throughout the world separate countries. After being urged by a delegation of Apaches at Fort Grant in 1872, General Howard authorized "a change of reservation: This I granted, abolishing the present one at Grant, and, connecting both sides of the Gila [River], made an addition to the White Mountain reservation, and called it the San Carlos division. I may have taken in more territory southward than was needed; this you can cut off at any time after the removal of the Indians is effected, if you deem it wise to do so."³³⁶ Howard wrote, "I issued an order to abolish all that portion of the White Mountain reservation lying south of a parallel to the Rio Gila and fifteen miles

³³³ U.S. Congress, "Indian Appropriations Act," Federal Statute, 16 Stat. 544, 566, 3 Mar 1871; Elmer F. Bennett, U.S.D.I., *Federal Indian Law* (Clark, NJ: The Lawbook Exchange, Ltd., 2008), 114, 138, 211, 236, 691.

³³⁴ See H. M. Robert to General W. D. Whipple, letter, 31 Jan 1870, describing the proposed White Mountain Reservation boundary, as well as the map that accompanied Robert's letter; Vincent Colyer to Lieut. Col. John Green, letter, 5 Sep 1871, selecting Robert's White Mountain Reservation; Vincent Colyer to Lieut. Royal E. Whitman, letter, 18 Sep 1871, creating the Camp Grant Reserve; Vincent Colyer to Hon. C. Delano, letter, 7 Nov 1871, selecting various Apache Indian reserves; C. Delano (Department of the Interior) to U.S. Grant, letter, 7 Nov 1871, recommending the White Mountain Reservation to President Grant; U.S. Grant, Executive Order, 9 Nov 1871, establishing the White Mountain Reservation; W. T. Sherman, letter, 9 Nov 1871, effectuating the 9 Nov 1871 Executive Order and stating that if Apaches left the reservation boundaries they would be considered "hostile."

³³⁵ Report of the Commissioner on Indian Affairs, *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1871* (Washington: Government Printing Office, 1872), 54.

³³⁶ O. O. Howard, "Report of Brigadier General O. O. Howard, U.S.A., of his first visit as commissioner to the Apaches of Arizona and New Mexico, with papers accompanying," Jun 1872, in *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1872* (Washington: Government Printing Office, 1872), 155. See page 157 for Howard's report regarding the 1871 Camp Grant Massacre.

below it.” He noted that this “rids us of the pestilential region of Camp Grant I gave till January 1, 1873, to carry this order into effect.”³³⁷

An Executive Order of December 14, 1872, cancelled the Camp Grant Indian Reservation and enlarged the San Carlos division of the White Mountain Reservation to encompass much of Mount Graham.³³⁸

After the establishment of the U.S. Mining Act of 1872, which offered miners subsidies and land to extract mineral wealth from public lands, the Apache life and land continued to change in ways that were not positive for Apaches or their environment. Anglo-European settlers complained to Washington and received President Grant’s Executive Order of August 5, 1873, that removed most of the irrigable land in the middle Gila River Valley and the Pinaleño Mountains from the Apache reservation.³³⁹ Grant’s Executive Order of July 21, 1874, removed “to the public domain” the recently proved mineral deposits that became one of the world’s largest and most profitable copper mines from the east side of the Apache reservation.³⁴⁰ An Executive Order by Grant on April 27, 1876, removed additional mineral deposits from the west side of the Apache reservation to create the Globe Mining District.³⁴¹ On October 30 of the same year, as Grant abolished the Chiricahua Apache reservation and opened land to Euro-American mining and timber harvesting, the Army forced most Chiricahua to move to the San Carlos Agency.³⁴²

President Rutherford B. Hayes continued Grant’s policies with regards to Western Apaches. Hayes’ Executive Order of March 31, 1877, removed additional mineral-rich lands from the west side of the Apache reservation.³⁴³ By Congressional Act of June 7, 1897, the federal government established, on all reservation land north of the Salt or

³³⁷ O. O. Howard, “Report of Brigadier General O. O. Howard, United States Army, of his second visit as commissioner to the Apaches of Arizona and New Mexico, with papers accompanying,” Nov 1872, in *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1872* (Washington: Government Printing Office, 1872), 176.

³³⁸ U. S. Grant, Executive Order, 14 Dec 1872; Welch, “A *dzil nchaa si’an* Chronology,” 6.

³³⁹ B. R. Cowen to U. S. Grant, Letter, 30 Jul 1873; U. S. Grant, Executive Order, 5 Aug 1873.

³⁴⁰ U. S. Grant, Executive Order, 21 Jul 1874.

³⁴¹ U. S. Grant, Executive Order, 27 Apr 1876.

³⁴² Welch, “A *dzil nchaa si’an* Chronology,” 6.

³⁴³ R. B. Hayes, Executive Order, 31 Mar 1877.

Black River, the Fort Apache Reservation, thus arbitrarily dividing the Apache Reservation in two parts and lead to the creation of the separate San Carlos Apache and White Mountain Apache “tribes.”³⁴⁴ As the Mount Graham Coalition later stated, “This [presidential proclamation] had nothing to do with their religious, linguistic and cultural traditions, which are universal on both Reservations. ... Changing those lines on U.S. governmental maps did not change the Apaches’ religious life or their traditional cultural relationship with *Dzil Nchaa Si’an* (Mt. Graham).”³⁴⁵ One of the final executive orders regarding Mount Graham and the Western Apaches occurred when on December 22, 1902, President Theodore Roosevelt reduced the size of the San Carlos reservation to open additional land, minerals, and water to exploitation by non-Indians.³⁴⁶ This action came on the heels of Roosevelt’s declaration of the Mount Graham Forest Reserve on July 22, 1902, which was enlarged again by Roosevelt’s executive order on October 6, 1906.³⁴⁷

* * * * *

Geronimo’s surrender in September 1886 officially ended the so-called Apache Wars. With the renegade Apaches removed from the Southwest, Americans increased their interests and incursions into traditional Western Apache homelands. Other military personnel, after Geronimo was taken prisoner, noticed the depredations on Apache reservations by Arizona residents who sought out farms, ranchlands, and water. Noted Colonel B. H. Grierson, “encroachments have ... been made on the Indian reservations by citizens.” But he also mentioned that the Arizona Legislature claimed “fifty hostile Indians were entrenched [sic.] in the mountains near the San Carlos Agency in defiance of the military authorities.”³⁴⁸ Apaches regularly fled to the mountains near San Carlos.³⁴⁹

³⁴⁴ U.S. Congress, Federal Statute, 30 Stat. 64, 7 June 1897.

³⁴⁵ The Mount Graham Coalition, “Reply to U. of Minnesota Astronomy Department’s Mt. Graham position paper,” 7-8, 13.

³⁴⁶ T. Roosevelt, Executive Order, 22 Dec 1902.

³⁴⁷ T. Roosevelt, Executive Order, 22 Jul 1902; T. Roosevelt, Executive Order 515, 6 Oct 1906. See 36 Stat. 2747.

³⁴⁸ B. H. Grierson, *Annual Report of Colonel B. H. Grierson, Tenth Cavalry, Brevet Major-General U.S. Army, Commanding Department of Arizona 1889*, 2.

Grierson also took note that “many Mormons and foreigners . . . try to monopolize the unsurveyed Government lands to the detriment of the Indians.” Grierson discussed proposed changes to reservation boundaries: “nearly three-fourths of the boundary is marked by permanent natural objects, well known to the Indians and which cannot be misunderstood by any one.” He suggested a “dam and reservoir at a point about ten miles up the San Carlos River from its mouth.”³⁵⁰ He described the many mountains of Arizona and proposed irrigation. Most significantly, in the appendix to his report, Grierson proposed new reservation boundaries with land to be “thrown out.”³⁵¹ The government, even when it appeared to be helping the Indians, was always interested in ways to make the Apache reservations smaller.

By the year of the World’s Columbian Exposition in 1893, Apaches were already known to live, grow up in, and participate in important ceremonies on mountain clearings. In an article in *Outing* magazine, Nantan Lupan described an Apache dance that was eventually broken up by the U.S. military, with the result being at least one prison being taken. Lupan set the scene: “On the snow-capped mountain the sun has set, and the shadows were growing deeper as Lieutenants G. and R. dismounted their horses at my tent. They had come to see Chirricahua [sic.] dance.”³⁵² According to Lupan, the dancers were “Born in the canons, raised in the mountains, [and] will go up a hill with greater ease than you or I go down.”³⁵³ He described the crown dancers, specifically the clown. However, the breakdown of the dance occurred and the Apaches scattered as U.S. scouts arrived. All that Lupan heard was “the footfall of the Apache as he hurries to his home in the mountains.”³⁵⁴ Such events show that, despite U.S. government efforts to subdue Apaches, they were still able to resist and practice their traditional ways, albeit secretly.

³⁴⁹ Edward Everett Dale, *The Indians of the Southwest: A Century of Development Under the United States* (Norman: University of Oklahoma Press, 1949), 104, 104 fn. 29.

³⁵⁰ Grierson, *Annual Report*, 6

³⁵¹ Grierson, *Annual Report*, Appendix.

³⁵² Nantan Lupan, “An Apache Dance,” *Outing*, 22 Jun 1893, 189.

³⁵³ Lupan, “An Apache Dance,” 190.

³⁵⁴ Lupan, “An Apache Dance,” 191.

In 1897, the Indian Rights Association wrote a letter to Congress regarding “riders” attached to “appropriation bills” that effected Indian life. “We respectfully urge upon Congress the defeat of a provision injected as a ‘rider’ into the Indian Appropriation Bill for the coming fiscal year, as it passed the House....” The introduction of the bill “as a ‘rider’ to the appropriation bill prevented the discussion to which such an important measure is entitled, and to which it would have been open if it had been considered as a separate bill.”³⁵⁵ The argument put forward on behalf of Indian interests is worth noting, given what happened in Congress regarding Mount Graham in the 1980s. Congressional riders and acts, Executive Orders, and the various parties interested in the resource wealth of the Southwest were already having an impact on Indian communities before the dawn of the twentieth century.

Anthropologists Meet Apaches

Before the end of the nineteenth century, the collecting of Apache material culture, sacred or otherwise, was well under way. Some materials were taken directly from Mount Graham. In 1897, for example, the Smithsonian Institution speculated that Mount Graham was used for “sacrifice.” According to one report, “the Graham ... mountains have many caves of considerable size which were formerly used for sacrificial and other purposes. One of those I will designate Adams Cave.... This cave lies on the northern slope of Mount Graham, near a sawmill, south of Thatcher.” The “floor [of the cave was] covered with prayer sticks.” In another part of the cave, the investigator found a “basket” and more “prayer sticks.”³⁵⁶ Curators, museologists, and anthropologists soon arrived in the field; when they left, they took with them Apache language, ceremonial objects, and diverse forms of sacred knowledge.

After 1886, after having served as Crook’s aid for 18 years, Bourke began a new career as an anthropologist interested in American Indians, particularly Apaches. His essays and books offer some detail about Apache spirituality, connections to sacred

³⁵⁵ Indian Rights Association, “Letter to Members of the Fifty-fourth Congress,” 13 Feb 1897.

³⁵⁶ *Annual Report of the Board of Regents of the Smithsonian Institution, Showing the Operations, Expenditures, and Condition of the Institution to July, 1897* (Washington: Government Printing Office, 1898), 620.

mountains, and the *gaan*, or Mountain Spirits, that figure so prominently in Apache life and culture. Bourke stated, “I once heard ... while I was with a party of Apache young men who had led me to one of the caves of their people, in which we came across a great quantity of ritualistic paraphernalia of all sorts: ‘We used to stand down here,’ they said, ‘and look up to the top of he mountain and see the kan [*gaan*] come down.’”³⁵⁷ Indeed, as Bourke was told at the end of the nineteenth century, mountains such as Mount Graham were sacred places where the *gaan*, or “mountain spirits,” as Bourke called them, lived.³⁵⁸ Bourke noted the Apaches regular use of science and astronomy: “they soon found that their own method of determining time by the appearance of the crescent moon was much more satisfactory.”³⁵⁹ He also noted that Apaches at the end of the nineteenth century still discussed the famous meteor shower of 1833, when “‘the stars all fell out of the sky.’”³⁶⁰ He included images of “ghost dance headdresses” and “gods or kan,” or *gaan* masks, that he drew or collected. Full-color plates were included in his report.³⁶¹ Bourke discussed the “amulets and talismans” made from pine, cedar, or fir wood struck by lightning on “mountain tops.”³⁶² He took note of a great amount of spiritual knowledge of place and astronomy. Indeed, Apache people were religious, spiritual, and possessed a vast amount of knowledge not only of their lands but also the skies above.

Bourke’s disrespect was most apparent, however, when he sketched the hat of a medicine man and in so doing, took away the man’s power:

In November 1885, while at the San Carlos Agency, I had an interview with Nantadotash, an old blind medicine-man ... who had with him a very valuable medicine-hat which he refused to sell, and only with great reluctance permitted me to touch. Taking advantage of his infirmity, I soon had a picture drawn in my notebook, and the text giving added symbolism of all the ornamentation attached.

³⁵⁷ John Gregory Bourke, “The Medicine-Men of the Apache,” in Smithsonian, *Ninth Annual Report of the Bureau of Ethnography*, 1887-1888 (Washington, D.C.: Government Printing Office, 1892), 581.

³⁵⁸ Bourke, “The Medicine-Men of the Apache,” 582.

³⁵⁹ Bourke, “The Medicine-Men of the Apache,” 562.

³⁶⁰ Bourke, “The Medicine-Men of the Apache,” 503.

³⁶¹ Bourke, “The Medicine-Men of the Apache,” 582, 586.

³⁶² Bourke, “The Medicine-Men of the Apache,” 468, 478, 552, 587.

Bourke then copied a prayer “verbatim,” after which Nantadotash “explained that I had taken the ‘life’ out of his medicine hat, and, notwithstanding the powers of his medicine, returned in less than a month with a demand for \$30 as damages. His hat never was the same after I drew it,” Bourke remarked. Bourke then put forth a “suggestion that the application of a little soap might wash away the clots of grease, soot, and earth adhering to the hat, and restore its pristine efficacy were received with the scorn due to the sneers of the scoffer.”³⁶³ That this man could not see and did not offer informed consent did not stop Bourke from disrespecting him, nor taking away his power—a repeated theme that was carried out for more than 150 years to Apaches, their land, and their sacred material objects and places.³⁶⁴ Eventually Apaches themselves, with the assistance of scholars such as Goodwin, Charles Kaut, Basso, Elizabeth Brandt, and John Welch would attempt to halt the theft of Apache knowledge and sacred places.

Still, other contemporary travelers noted that mountain ranges were the locations that Apaches knew best. According to anthropologist Aleš Hrdlička’s work, some Apache tribal elders at San Carlos said they moved from the San Francisco Mountains, in present-day New Mexico.³⁶⁵ A more important comment was made by photographer Edward S. Curtis, who focused on the Apache as the first Indians described and photographed in his mammoth 20-volume set, *The North American Indian*:

Since known history, the many bands of Apache have occupied the mountains and plains of southern Arizona and New Mexico, northern Sonora and Chihuahua, and western Texas—an area greater than that of the states of New York, Pennsylvania, New Jersey, Connecticut, Massachusetts, Vermont, Maine, Ohio, North Carolina, South Carolina, and West Virginia.³⁶⁶

He described the Apache as “denizens of the mountains,” before noting the “war of extermination” brought on by General Carleton in 1864 against the Apaches. Carleton said, “we will either exterminate the Indians or so diminish their numbers that they will

³⁶³ Bourke, “The Medicine-Men of the Apache,” 502-503.

³⁶⁴ For criticisms of anthropologists and their works, see Vine Deloria, Jr., “Anthropologists and Other Friends,” *Custer Died for Your Sins: An Indian Manifesto* (1969; Norman: University of Oklahoma Press, 1988); Thomas, *Skull Wars*.

³⁶⁵ Aleš Hrdlička, “Notes on the San Carlos Apache,” *American Anthropologist*, 7 (1905): 481.

³⁶⁶ Edward S. Curtis, *The North American Indian*, vol. 1: 6.

cease their murdering and robbing propensities and live in peace.”³⁶⁷ Even after the creation of reservations at Rio Verde, Fort Apache, and San Carlos, “About one thousand [Apaches] remained in the mountains.”³⁶⁸ Every effort was made to marginalize Apaches and push them off their land; every effort was made by large numbers of Apaches to resist. The Apaches resisted a “war [that] was conducted on strictly extermination principles.”³⁶⁹ Carleton’s efforts were “the first example of ‘scorched earth’ tactics in the southwest since the American occupation.”³⁷⁰

But the Apaches resisted not only the theft of their land but also the theft and incursions into the interconnections between their lives and their religious beliefs. Curtis said quite a good amount about Apache beliefs:

The Apache is inherently devoutly religious; his life is completely moulded [sic.] by his religious beliefs. From his morning prayer to the rising sun, through the hours, the days, and months—throughout life itself—every act has some religious significance. Animals, elements, every observable thing of the solar system, all natural phenomena, are deified and revered.

According to Curtis, “The Apache, even if willing, could not directly impart their religious beliefs or their philosophy. It is only by study of their myths, myth songs, and medicine practices, and by close observance of their life, that a comprehensive idea of such beliefs can be gained.” Under questionable circumstances, Curtis was able to “procure” a sacred Apache animal skin. Curtis stated, “A concise outline of the mythology of the Apache is given in the following description of the painted medicine skin shown in the accompanying plate.” In a footnote, Curtis mentioned:

This medicine skin was owned by Háshkě Níltě and was considered one of the most potent belongings to any of the medicine-men. During the lifetime of Háshkě Níltě it was impossible for any white man even to look upon this wonderful “medicine.” After reaching extreme age he was killed, presumably by his wife, from whom this valuable and sacred object was procured.

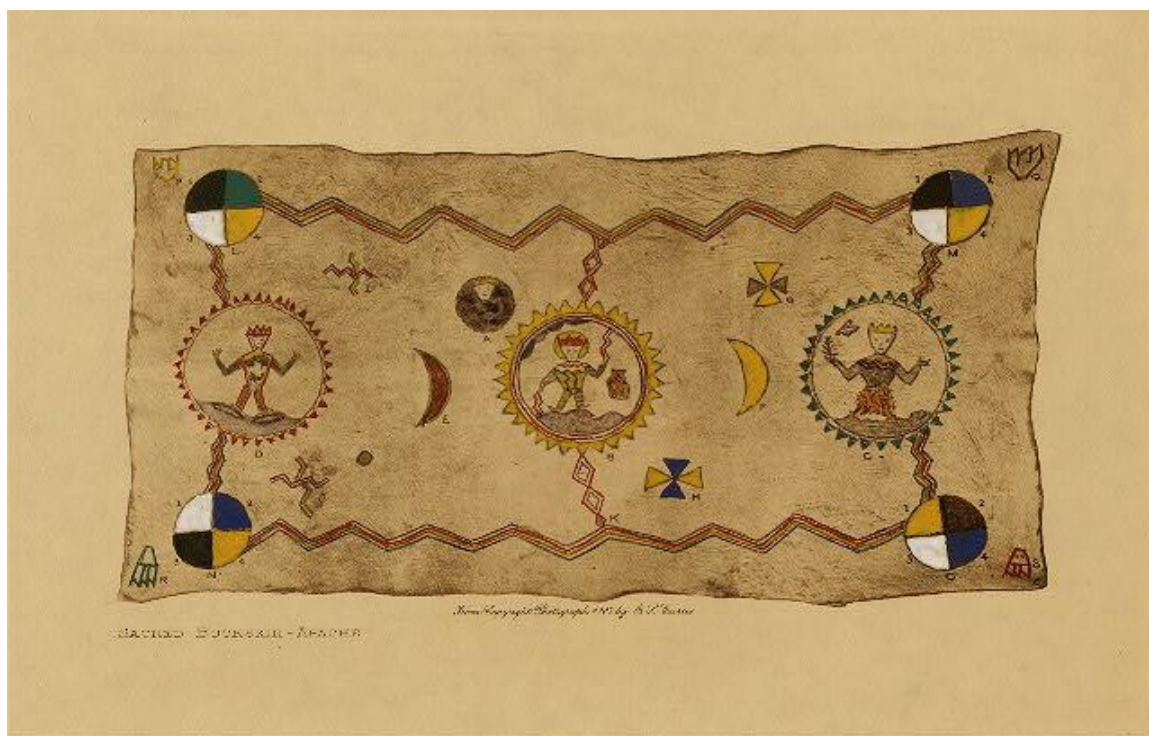
³⁶⁷ Curtis, *The North American Indian*, vol. 1: 7.

³⁶⁸ Curtis, *The North American Indian*, vol. 1: 8.

³⁶⁹ Dunn, *Massacres of the Mountains*, 386. See also, Horsman, *Race and Manifest Destiny*, 3.

³⁷⁰ Henry H. Goldman, “General James H. Carleton and the New Mexico Indian Campaigns,” *Journal of the Southwest*, vol. 2, no. 2 (1963): 160.

Indeed, buckskin prayer paintings “which may be made as a prayer for an individual” were not uncommon to Western Apaches.³⁷¹ His photograph, “Sacred Buckskin—Apache,” as well as a description of each element of the photograph, was included in the first volume.³⁷²



“Sacred buckskin—Apache”³⁷³

Curtis said, “The priest often take a medicine skin of this sort and go out into the mountains, where they fast and sing over it for hours at a time, awaiting the coming of the spirits.”³⁷⁴ Curtis described numerous Apache ceremonies. Stated Curtis, “In secluded spots in the hills and mountains are found round cairns, with cedar and other twigs deposited upon them.” Regarding burials: “Everywhere throughout the hills and

³⁷¹ Grenville Goodwin, “A Comparison of Navaho and White Mountain Ceremonial Forms and Categories,” *Southwestern Journal of Anthropology*, vol. 1, no. 4 (1945), 508.

³⁷² Curtis, *The North American Indian*, vol. 1: 29. A full description of the elements of the painting is located on pages 30-35 of this volume.

³⁷³ See Curtis, *The North American Indian*, vol. 1: opposite 31, <http://curtis.library.northwestern.edu/curtis/viewPage.cgi?showp=1&size=2&id=nai.01.book.00000074.p&volume=1>

³⁷⁴ Curtis, *The North American Indian*, vol. 1: 32.

mountains of the reservation one finds small heaps of stones. In most instances these mark Apache graves.”³⁷⁵ Apaches used the mountains and continued to practice their traditional lifeways in the early years on reservations. A major problem, however, was that anthropologists more easily tracked them down since they were now in one place, as prisoners on government-created reservations.

By the early years of the twentieth century, men such as George Gustav Heye, who made his money from Standard Oil stock, hired men to collect materials for the Museum of the American Indian in New York City. Among others, Heye hired Mark Raymond Harrington, whom he sent to plunder American Indian nations. On a trip to Apache country, he bought baskets, abalone shell, carved figures, and sacred objects. After many gleeful purchases, Harrington exclaims, “‘A fine specimen for the museum!’ I thought.”³⁷⁶ But about sacred items, Harrington employed skillful means to extract materials from Apaches. As he explains,

When questions about the price our Apache’s face grew solemn and he discussed at length on the great sacredness of the mask, and what might happen to him if he sold, then he mentioned a price that was exactly what we expected from one of Geronimo’s marauding partisans. Taking my turn, I called his attention to the mask’s inferiority, and expressed a doubt as to whether I should buy it at all. But finally the bargain was closed at the more reasonable figure, and I drove away with not only the treasure itself but the legend of its origin as well.³⁷⁷

Such efforts to take sacred items, in the case of both Curtis and Harrington, were done with the same level of disrespect and violence that took Mount Graham away from Apache reservation land in the nineteenth century. The Apache story was one of stolen lands, stolen history.

A contemporary of Curtis, Pliny Earle Goddard, the curator of ethnology at the American Museum of Natural History, wrote about the Jicarilla Apaches. He referred to

³⁷⁵ Curtis, *The North American Indian*, vol. 1: Appendix, 133.

³⁷⁶ M. R. Harrington, “The Devil Dance of the Apaches,” *The Museum Journal* 3 (Philadelphia: The University Museum [University of Pennsylvania], 1912), 6-7. Ramon Riley, Cultural Resources Director for the White Mountain Apache Tribe, is trying to get items repatriated to the White Mountain Apache Tribe from various museums. He bemoans the fact that items such as crowns worn by *gaan* in dances are still referred to in many museum’s archives as being used in a “devil dance.” Ramon Riley to author, personal communication, Aug 2002.

³⁷⁷ Harrington, “The Devil Dance of the Apaches,” 7.

the sacred mountain ranges that made up the traditional homeland of the Jicarilla Apaches: Pike's Peak, Sangro de Christo Range, White Flint Mountain, and Rock Bell Mountain.³⁷⁸ The Jicarilla Apaches that Goddard interviewed told him: "We are dying off because the Americans have taken us to a place not our own and have forced us to live by means not ours. They have taken us away from the world which our father made for us to live in and we are dying in the consequence.... When we were living in our own country the people did not die as they do now."³⁷⁹ The old men told Goddard "that there is definite cause for the evils which have come upon the tribe. They have been removed from that portion of the earth where the sacred rivers and mountains, filled with supernatural power for their help, were situated."³⁸⁰ Parallel cases and comments exist for Mount Graham and Western Apache tribes.

During and after World War I, scholarly interest in and publications about various Apache groups appeared to discuss the culture of Apaches. Goddard published a series of articles about various Apache groups. In a 1916 article, Goddard discussed the "masked dancers of the Apaches." According to Goddard, "The Gąhi are believed to be still living in the interior of certain mountains."³⁸¹ He mentioned sacred Mount Baldy ("Mescal Mountain"), the east mountain and "home of the Gans themselves," in his essay. Songs copied from Apaches in his essay refer to "the holy mountain," the colors of the four directions, the rain, the sacred lightning and pollen, and "the sacred number four, connected with the world-quarters, each with its color. The east is black, the south is blue, the west is yellow, and the north is white."³⁸² Goddard added to his observations regarding sacred numbers, colors (here, south is white and north is blue), directions, rivers, and mountains, as well as information about creation stories, in 1918 and 1919

³⁷⁸ Pliny Earle Goddard, "Jicarilla Apache Texts," *Anthropological Papers of the American Museum of Natural History*, vol. VIII (New York: American Museum of Natural History, 1911), 206.

³⁷⁹ Goddard, "Jicarilla Apache Texts," 24.

³⁸⁰ Goddard, "Jicarilla Apache Texts," 24, fn. 1.

³⁸¹ Pliny E. Goddard, "The Masked Dancers of the Apaches," in *Holmes Anniversary Volume: Anthropological Essays Presented to William Henry Holmes in Honor of His Seventieth Birthday, December 1, 1916* (Washington: J. W. Bryan Press, 1916), 133.

³⁸² Goddard, "The Masked Dancers of the Apaches," 135.

articles about the San Carlos Apache.³⁸³ Importantly, the trees used by Apaches in their ceremonies are only found in higher elevations.³⁸⁴ Goddard's work constantly mentions the use and supernatural power that Apaches derive from their sacred mountain ranges.³⁸⁵ Noted Goddard, "There are sacred mountains and rivers but these are of necessity different for the different tribes."³⁸⁶ It is significant that a photograph included in one Goddard essay was titled "the Dancing Gans. Ash Creek, Arizona" and was taken atop Mount Graham, near Columbine.³⁸⁷

Arguably the most important white American scholar to set foot on Apache land was Grenville Goodwin. Before Goodwin's arrival in the Southwest, the works of Cremony, Bourke, Britton Davies, Charles Lummis, Paul Wellman, and Lockwood presented Apachean culture and history from the barrel of a loaded gun.³⁸⁸ In some cases, especially with Bourke and Curtis, the lack of consent made it seem as if Apaches were forced to turn over their sacred knowledge. More than any other scholar at the time, Goodwin was able to "get beyond ... works ... that have portrayed Apache life from the viewpoint of the white military campaigner."³⁸⁹ Indeed, of utmost importance to

³⁸³ The significance of certain colors and their directional associations are often discussed in anthropological literature regarding Apaches. See works by Grenville Goodwin, Morris Opler, and others. See Bryon Cummings, "Apache Puberty Ceremony for Girls," *The Kiva*, vol. 5, no. 1 (Oct 1939), 3.

³⁸⁴ Pliny Earle Goddard, "Myths and Tales from the San Carlos Apache," in *Anthropological Papers of the American Museum of Natural History*, vol. XXIV, Part 1 (New York: American Museum of Natural History, 1918), 7 n. 4, 10-12, 29, 38, 49-50, 54, 56-62; Pliny Earle Goddard, "San Carlos Apache Texts," *Anthropological Papers of the American Museum of Natural History*, vol. XXIV, Part 3 (New York: American Museum of Natural History, 1919), 147.

³⁸⁵ Pliny Earle Goddard, "Myths and Tales from the White Mountain Apache," in *Anthropological Papers of the American Museum of Natural History*, vol. XXIV, Part 2 (New York: American Museum of Natural History, 1919), 110-111, 115, 124, 125. See also, Pliny Earle Goddard, "White Mountain Apache Texts," *Anthropological Papers of the American Museum of Natural History*, XXIV, Part 4 (New York: American Museum of Natural History, 1919), 369-533.

³⁸⁶ Pliny Earle Goddard, *Indians of the Southwest*, Handbook Series No. 2, 3rd ed. (1913; New York: American Museum Press, 1927), 179.

³⁸⁷ Goddard, *Indians of the Southwest*, 174.

³⁸⁸ Among others, see Bourke, "The Medicine-Men of the Apache"; Paul Iselin Wellman, *Death in the Desert: The Fifty Years' War for the Great Southwest* (New York: The Macmillan Company, 1936); Lockwood, *The Apache Indians*.

³⁸⁹ Edward H. Spicer, "Grenville Goodwin: A Biographical Note," in Basso, ed., *Western Apache Raiding & Warfare*, 4. See also, Grenville Goodwin and Neil Goodwin, *The Apache Diaries: A Father-Son Journey* (Lincoln, NE: University of Nebraska Press, 2000), 2-3. Regarding the U.S. military campaigns, see also, Janne Lahti, "Community, Power, and Colonialism: The U.S. Army in Southern Arizona and New Mexico, 1866-1886," (Ph.D. diss., University of Helsinki, 2009).

understanding Apache life and culture, as well as history and the Apache connections to Mount Graham, is the work Goodwin, a noted anthropologist who lived with and interviewed Apaches from 1927 until his early death in 1940. His work tells us a great deal about life at San Carlos and Fort Apache soon after the U.S. government established reservations. His copious field notes, journals, watercolor illustrations, and photographs are located in Tucson at the Arizona State Museum. Many scholars have turned to Goodwin's work, including anthropologists Morris Opler, Kaut, Basso, and Brandt, in an effort to understand the early years of life on the San Carlos and White Mountain Apache Reservations.³⁹⁰

Opler once said that Goodwin was “one of the most gifted and effective field anthropologists in the history of the discipline.”³⁹¹ Edward “Ned” Spicer, the famous anthropologist, contemporary of Goodwin and Opler, and author of the important work, *Cycles of Conquest: The Impact of Spain, Mexico, and the United States on the Indians of the Southwest, 1533-1960*, stated about Goodwin:

To Grenville Goodwin we owe most of what understanding we have of the way of life of the Western Apaches. The abundant literature of the Western Apaches, inspired in great part by the spectacular forays of Geronimo and his predecessors, is largely a literature of the men who fought the Indians and participated in the final relentless roundups. It is not a literature from which emerges a view of the values by which Apaches lived. But for the work of Goodwin we would have lost all opportunity to participate in the Apache world.³⁹²

Basso, the preeminent living anthropologist of Western Apache language and culture, who has used and is most familiar with Goodwin's notes, described the lasting effects of Goodwin's work to the Western Apaches. “Many of America's Indians, including the Apache, are currently engaged in a search for their own history—not as it has been

³⁹⁰ For a biography of Goodwin, see Edward H. Spicer, “Grenville Goodwin: A Dedication to the Memory of Grenville Goodwin, 1907-1940,” *Arizona and the West*, 3 (1961): 201-204; Opler, *Grenville Goodwin Among the Western Apache*; Spicer, “Grenville Goodwin,” in Basso, *Western Apache Raiding & Warfare*, 3-7; Morris E. Opler, “Grenville Goodwin,” in Alan Ferg, ed., *Western Apache Material Culture: The Goodwin and Guenther Collections* (1987; Tucson: The University of Arizona Press, 1996), 27-40; Goodwin and Goodwin, *The Apache Diaries*; Neil Goodwin, *Like a Brother: Grenville Goodwin's Apache Years, 1928-1939* (Tucson: University of Arizona Press, 2004), esp. 5-13.

³⁹¹ Opler, *Grenville Goodwin Among the Western Apache*, 5.

³⁹² Spicer, “Grenville Goodwin,” in Basso, *Western Apache Raiding & Warfare*, 3.

depicted and all too frequently biased by Anglos,” stated Basso in *Western Apache Raiding & Warfare*, “but as it relates to their own knowledge of who they have been and who they have become. Ideally, such a history should come from the people themselves, and it is Goodwin’s great and lasting contribution that he helped make this possible.”³⁹³ Indeed, Goodwin’s notes are the greatest source, aside from comments by living Apaches, about the sacred character of Mount Graham. Goodwin’s work alone counters all criticisms lobbed later by astronomers who sought to use the mountain.

In a 1935 article, Goodwin described San Carlos and White Mountain Apache groups; of the groups/bands that he mentioned, five have claims to Mount Graham.³⁹⁴ Goodwin described the mountainous places where Apaches lived for some time each year. In a separate article, Goodwin described “Gá·n,” compared “Gá·n” to Katchina, and then compared Zuni, Hopi, and Apache cultures.³⁹⁵ Goodwin conducted his work during a time in which a number of elders still possessed knowledge of the sacred. Some younger Apaches also had a great amount of sacred knowledge that came to light.³⁹⁶ At about the same time that Goodwin, scholars and archeologists from the University of Arizona and elsewhere were conducting work on and near the Apache reservations. Archaeologist William Duffen excavated in the “Graham Mountains” and took note of “The Webb Ruins . . . situated at the base of Graham mountain on the south side and some five miles north of Bonita, Arizona.”³⁹⁷ Scholars such as Opler and linguist Harry Hoijer began their “ethnographic fieldwork in earnest” during the 1930s, and helped to establish an ever-growing literature about Western Apaches.³⁹⁸

Based on countless interviews, Goodwin stated that “the period when the United States Government first seriously started to interfere with the original balance of their

³⁹³ Basso, *Western Apache Raiding & Warfare*, 25.

³⁹⁴ Grenville Goodwin, “The Social Divisions and Economic Life of the Western Apache,” *American Anthropologist*, 37 (1935): 56.

³⁹⁵ Grenville Goodwin, “The Characteristics and Function of Clan in a Southern Athapascan Culture,” *American Anthropologist*, 39 (1937), 394-407.

³⁹⁶ Henry Kane, “The Apache Secret Devil Dance,” *El Palacio*, 42 (1937), 93-94.

³⁹⁷ William A. Duffen, “Some Notes on a Summer’s Work Near Bonita, Arizona,” *The Kiva*, vol. 2, no. 4 (1937): 13-16; Paul S. Martin and Fred Plog, *The Archaeology of Arizona: A Study of the Southwest Region* (Garden City, NY: Doubleday/Natural History Press, 1973), 10, 18.

³⁹⁸ Basso, *Western Apache Raiding & Warfare*, 10.

[Western Apache] culture (1871-1873)” was, in Goodwin’s opinion, at the point “when the centralization of the Western Apache on government reservations was accomplished.”³⁹⁹ Indeed, the early 1870s were a critical time in Western Apache history—a time when Apaches resisted the onslaughts of various white Americans who not only encroached on their lands but also made it known the lengths that they would be willing to go to take away Apache resources, corral them in one location, and deprive them at nearly every turn of their way of life.⁴⁰⁰

A contemporary and friend of Goodwin, Opler communicated with Goodwin through letters and knew a great amount about various Apache tribes. According to Opler, “A number of my informants have introduced our discussions concerning Apache ritual with the statement: ‘The Apaches are a very religious people.’” Continued Opler, “These informants know precisely what they mean by ‘religious.’ They mean that at every point of his life, the Apache seeks supernatural aid in meeting his problems and conducting his affairs.”⁴⁰¹ Opler argued that all Apache have some ceremonial knowledge and have been “the recipient of some supernatural power.”⁴⁰² Opler and Goodwin contributed a great amount to what scholars know today about Apache religion and the power from *gaan* and sacred places.

Opler also described the “sacred clowns of the Chiricahua and Mescalero Apaches”: “They are spirits, of whom the masked dancers are authentic representations, living in caves of the mountains.”⁴⁰³ He described that Apaches lived in mountains and obtained power from high places. “Animals and supernaturals of all kinds offer him [Apache] great power,” noted Opler.⁴⁰⁴ The “Mountain Spirits” were mentioned throughout the article, as well as “Those who impersonate the Mountain Spirits,” such as the “Gahe,” during girl’s puberty ceremonies.⁴⁰⁵ Supernaturals lived in the mountains, the

³⁹⁹ Goodwin, “The Social Divisions and Economic Life of the Western Apache,” 59.

⁴⁰⁰ Basso, *Western Apache Raiding & Warfare*, 21.

⁴⁰¹ M. E. Opler, “The Concept of Supernatural Power Among the Chiricahua and Mescalero Apaches,” *American Anthropologist*, 37 (1935): 65.

⁴⁰² Opler, “The Concept of Supernatural Power,” 70.

⁴⁰³ Morris E. Opler, “The Sacred Clowns of the Chiricahua and Mescalero,” *El Pacio*, vol. 44 (1938), 75.

⁴⁰⁴ Opler, “The Sacred Clowns of the Chiricahua and Mescalero,” 76.

⁴⁰⁵ Opler, “The Sacred Clowns of the Chiricahua and Mescalero,” 76, 77.

mountains had power, and the mountains provided various animal power. Apache people needed and utilized those heights to live, to be healthy, and to maintain order in the world.

Goodwin described the “White Mountain Apache religion.” According to Goodwin’s informants, “The earth is female.... Her bones are the mountains and rocks, her hair the trees and plants. Four great beings support her.” Goodwin discussed the significance of the stars, sun, and moon.⁴⁰⁶ “Lightning People are a most powerful class of supernaturals,” stated Goodwin. “The scheme of the four directions permeates all ritual.... This is represented by colors; east black, south blue, west yellow, and north white.... Animals, plants, mountains, and the like, associated with a direction, also assume its color.”⁴⁰⁷ Goodwin discussed “ga·n,” saying,

An important class of supernaturals are the ga·n, sometimes called ha·ste’i in songs and prayers, and corresponding to the Navajo hact’e’. They are a people who resided on earth long ago, but departed hence in search of eternal life and now live in certain mountains, places below the ground, as well as living and traveling in clouds and water.... An important ga·n rite exists in which the dancers are masked and made to represent ga·n.⁴⁰⁸

Among other places and objects, mountains had power. “Prayers to the sun are most common; but the moon, earth, sky, certain stars, rivers, mountains, anything which is holy or has power, can be prayed to,” stated Goodwin.⁴⁰⁹ Goodwin talked about the importance of corn meal, pollen, eagle feathers, “sacred black jet, turquoise, catlinite, and white shell, each having directional associations.”⁴¹⁰ In his writings, Goodwin pointed out efforts by the U.S. military to make certain that Apaches were unable to participate in and practice their religion, especially in the 1880s.⁴¹¹

Had Goodwin not died in 1940, his scholarship would have, for some time, continued to follow the path of his contemporary, Opler. Opler would have continued to

⁴⁰⁶ Grenville Goodwin, “White Mountain Apache Religion,” *American Anthropologist*, vol. 40 (1938), 24.

⁴⁰⁷ Goodwin, “White Mountain Apache Religion,” 25.

⁴⁰⁸ Goodwin, “White Mountain Apache Religion,” 27.

⁴⁰⁹ Goodwin, “White Mountain Apache Religion,” 28.

⁴¹⁰ Goodwin, “White Mountain Apache Religion,” 33.

⁴¹¹ Goodwin, “White Mountain Apache Religion,” 34. See section titled “Religion and Ritual” in Goodwin, “The Southern Athapaskans,” 9.

work on various Apachean peoples—the Chiricahua, Jicarilla, Lipan, Mescalero, and Kiowa-Apache; Goodwin would have continued to focus on Western Apaches, particularly White Mountain Apache people. Their scholarship followed a similar trajectory. Not only were Opler and Goodwin born in the same year, 1907, but also the copious notes that Goodwin left behind would have provided enough for him to have written similar articles on similar topics as Opler. So, when Opler wrote in 1946 about the “Mountain Spirits of the Chiricahua Apache” or in 1971 about the “Jicarilla Apache Territory, Economy, and Society in 1850,” we can imagine that Goodwin would have written about the White Mountain Apaches in similar ways. Although these various Apache groups were not clones of each other, they shared similar beliefs and make the case stronger that Western Apaches wanted to protect their homelands.

“The gáhé or žà’žádà of the Chiricahua Apache Indians of the American Southwest are mountain-dwelling supernaturals. Though the native terms cannot be literally translated, in previous publications I have called them Mountain Spirits,” stated Opler in the 1940s, after Goodwin’s death. “The Mountain Spirits are primarily conceived to be protectors of the Chiricahua Apache and of their territory, though they also have other functions,” wrote Opler. He continued, “The masked dancers are referred to by the same terms used of the ‘real’ Mountain Spirits, though the Chiricahua always keep the distinction between the impersonators and the supernaturals in mind.” About the peaks in which they live, Opler wrote, “The Mountain Spirits inhabit the interiors of many mountains. Therefore, the ‘holy home’ of each group of gáhé is a little different from that of others.”⁴¹² Indeed, elsewhere in the Southwest, a Jicarilla Apache informant stated that “At Abiquiu Peak dwelt friendly supernaturals.”⁴¹³ Furthermore, “Even when they farmed, they wanted to be near the mountains, so at first warning they could escape into the brush and wilds.”⁴¹⁴ Other informants told Opler that in 1874, when the U.S.

⁴¹² Morris Edward Opler, “Mountain Spirits of the Chiricahua Apache,” *The Masterkey*, vol. XX, no. 4 (Jul 1946), 125.

⁴¹³ Morris E. Opler, “Jicarilla Apache Territory, Economy, and Society in 1850,” *Southwestern Journal of Anthropology*, vol. 27, no. 4 (Winter 1971), 315.

⁴¹⁴ Opler, “Jicarilla Apache Territory, Economy, and Society in 1850,” 320.

Army took Victorio from Hot Springs to San Carlos, “at that time some of our people ran into the mountains.”⁴¹⁵

Opler consistently made reference to sacred mountains such as Mount Cuchillo and Tres Hermanas Mountains in New Mexico; “holy” mountains; the mountains as homes for animals; and locations where the “Mountain Spirits are in that mountain.”⁴¹⁶ According to Opler, “It is claimed that drumming and signing of the Mountain Spirits can be heard by those who travel close to their mountain homes.”⁴¹⁷ According to an informant, “The leading Mountain Spirit talked to him. He said, ‘we live in these big mountains.’”⁴¹⁸ Opler then told three stories: “The Two Children Saved by Mountain Spirits,” “The Mountain Spirits Help a Fleeing Chiricahua,” and “Old Dick Obtains a masked Dancer Ceremony.” Similar comments about the mountains being ancestors, Apaches living in mountains, and having “masked dancers” act as exact representations of the Mountain Spirits, are made by Apaches living in the present on the San Carlos and White Mountain Apache reservations. Based on Goodwin’s notes and the copies that he forwarded to friends such as Opler, Goodwin had enough information and documentation to make similar claims about White Mountain Apache sacred places.⁴¹⁹

The writings of Collier, the Commissioner of Indian Affairs from 1933 to 1945, supported the work of Goodwin, Opler, and others. In his book, *Patterns and Ceremonials of the Indians of the Southwest*, Collier stated, “the Masked Dancers are there, representing the Gods of the Sacred Mountains, but known to uninitiated whites as Devil Dancers.”⁴²⁰ Collier described the importance and connections between Mountain Spirits and Apaches: “Nearer to man in the present are the Mountain Spirits of Mountain Gods.... Their home is the interior of the Sacred Mountains, but these imagined sacred caverns ‘measureless to man’ symbolize even the universe; all imagery of earth and sky

⁴¹⁵ Opler, “Mountain Spirits of the Chiricahua Apache,” 126.

⁴¹⁶ Opler, “Mountain Spirits of the Chiricahua Apache,” 126-129.

⁴¹⁷ Opler, “Mountain Spirits of the Chiricahua Apache,” 126, fn. 4.

⁴¹⁸ Opler, “Mountain Spirits of the Chiricahua Apache,” 130.

⁴¹⁹ See the papers of Grenville Goodwin at Arizona State Museum in Tucson.

⁴²⁰ Collier, *Patterns and Ceremonials of the Indians of the Southwest*, 77.

is used in addressing the Mountain Gods.”⁴²¹ Indeed, even to the casual scholar of Apache history like Collier, the mountains, especially Mount Graham, held a special, sacred place in the culture of Apaches. Such observations help to debunk comments by astronomers and their allies 50 years later that Mountain Spirits did not reside in mountains and Apaches did not care about their sacred mountains until astrophysical development was planned.⁴²²

In Goodwin’s notes, located at the Arizona State Museum in Tucson but restricted for use by non-Apaches, there are several references to Mount Graham. This material was collected during the 1930s, so concerns about authenticity should be minimal. What students of Western Apache history can learn from these records is that, among other topics, Goodwin noted that “Great medicine-men know all about the sky.”⁴²³ The Southwest offered a great place for studying the night sky. His informants offer a great amount of information and knowledge about celestial events, constellations, and stars, including the Big Dipper, Pole Stars, Orion, Pleiades, and the Milky Way. Indeed, informants Ben Norman (Tonto Apache), Joseph Newton (Eastern White Mountain Apache), Charley Sago, and Palmer Valor (White Mountain Apache) mentioned much information about constellations.

What is also important is that Goodwin’s Western Apache informants discussed the sacred mountains of their traditional homelands. Stated one informant, “Graham Mountain, Turnbull, Chiricahua Peak, the White Mountains, together with the Blue Range and _____ are all holy mountains, and can be prayed to because the clouds hand on them sometimes and Lightning People are on them, pray for crops, life and hunting.”⁴²⁴ An Apache named Francis Drake, in an interview with Goodwin on March 1936, discussed four sacred mountains, including Mount Graham, and the horse power

⁴²¹ Collier, *Patterns and Ceremonials of the Indians of the Southwest*, 79; Collier, *On the Gleaming Way*, 134.

⁴²² Bordewich, *Killing the White Man’s Indian*.

⁴²³ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Sect. 14 Questions (New Material),” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 19.

⁴²⁴ Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Sect. 14 Questions (New Material),” Opler Papers. Emphasis in original.

that each provide. On “Graham Mountain,” according to Drake, are “giant horse tracks up on it” from a “Male Blue Horse.” In times of war, Drake noted, Apaches sang to the four mountains to have as many horses as the mountains had. He mentioned the sacred mountains as: Mogollon Mountain, Graham Mountain (*dzit do int k a si*), San Francisco Mountain, and San Mateo. Elsewhere, Drake again mentions four mountains, including the “blue horse chief,” Graham Mountain, which he refers to as *dzit dō’ int k’ á-si*. Stated Drake, “There are four mountains that are like the chiefs of all the mountains. These four are *dzit’inṭk’a-si* [or *dzil inlk a si*], *dziṭdo-ge’osṭid* [or *dzildo geo slid*], *so-dziṭ* [or *so dzil*], and *na-da-z’ai* [or *na da zai*]. They sing about them as being chiefs in the songs.”⁴²⁵ What is more, stated Drake, “There is no story about how these four great mountains became chiefs of mountains. I just know it from the Horse Songs and *ize gaiye e* songs. But in the myth they say that all the mountains were made by the flood washing up ridges of material to form them. Then a man gave all the mountains names also, but we don’t know them now.”⁴²⁶ In additional notes that include a rather lengthy discussion about mountains in Arizona and New Mexico, Drake mentions four mountains, including Graham Mountain. He then mentions the San Francisco Peaks and Mount Turnbull before stating, “I have heard about only four mountains as Beings at all.”⁴²⁷

Elsewhere, in Goodwin’s notes, informants corroborate stories and information about Mount Graham and four sacred mountains. In an interview from May 1936, Newton stated, “Also we prayed in old times to Graham Mountain, Turnbull Mountain, ... and Chiricahua Peak, ... and to the White Mountains, and to the Blue Range, and to the Mogollon Mountains in New Mexico. But these last three I included under the White Mountain names, as they are all sort of together.” After talking about San Francisco Peak with Goodwin, Newton stated, “Over here the Graham has four names: *dzil ntca hi*, *dzit*

⁴²⁵ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section 14: ‘World Universe,’ Francis Drake,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 20. There are two typed versions of this story, hence the spelling variations.

⁴²⁶ Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section 14: ‘World Universe,’ Francis Drake,” in Opler Papers.

⁴²⁷ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section 14: Francis Drake,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 19.

do'inl k'a si, and *dzil ha ldo hi*, [and] *so dzil*.” According to Newton and other informants, “But Graham Mountain over there is male all right.” Newton stated, “Yes, the Graham Mountain and White Mountain (together with the Blue Range) are the two chiefs of mountains. I have never heard of their being four chiefs of mountains. These two [Graham and Blue Range] are chiefs because they each have four names,” or eight names total.⁴²⁸

Without being cued, some informants confirmed reports by anthropologist Goddard decades earlier. Informant Norman discussed the “cardinal points” and their relation to color. “The four directions are represented by different colors—east by black, south by blue, west by yellow, and north by white.”⁴²⁹ One of Goodwin’s “most trusted informants” was Anna Price, whose real name was “Her Eyes Grey.” She “was the eldest daughter of Diablo, probably the most influential chief ever to appear among the White Mountain Apache.”⁴³⁰ She told Goodwin, “*dziti gai si'a* is the chief for all the mountains. When people went to war they always used to say, ‘I am going to bring back some cattle for *dziti gai si'a*,’ because this mountain is chief.” While discussing sacred mountains and trying to clarify information to Goodwin, Price added, “I have never heard of four mountains that are chiefs for all the mountains and have power, at all. Only the White Mountain was prayed to for Power that way. I have not heard of *tso dzil* or *dzit doge'odlid*.”⁴³¹

In December 1935, John Rope (Western White Mountain Apache), a scout for the U.S. Army during various Apache campaigns, provided Goodwin with drawings of five different types of *gaan*.⁴³² Much of what the Apache informants Drake, Newton, Price,

⁴²⁸ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section Fourteen: Joseph Newton,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 21.

⁴²⁹ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section Fourteen: Ben Norman,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 22.

⁴³⁰ Basso, *Western Apache Raiding & Warfare*, 29.

⁴³¹ Goodwin put an asterisk next to this passage and wrote, “chiefs of holy mountains.” Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section Fourteen: Data. Anna Price,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 22.

⁴³² Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (religion)”: “Section Fourteen: John Rope,” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box

and others say about sacred mountains is about particularly *dzil nchaa si'an*, in its various spellings and names. In addition to their comments and knowledge about Mount Graham, there is a great amount of sadness in the silences. As Valor stated, “All this country belonged to us alone. All the mountains around here had names, and now they have none. In those days [before the arrival of the U.S. military], there were lots of us, and trails around through these mountains were well-traveled, like roads.” Lamented Valor, “Now they are all faded out and hard to see.”⁴³³ According to Goodwin, “Valor’s accounts of the old days are unique since he was almost the only Western Apache left who had taken an active part in the life of the people prior to U.S. Army control. Among his own White Mountain Apache, he was known as a widely traveled man and an authority on the earlier life and times.”⁴³⁴ By acknowledging a loss of knowledge about the lands of the Western Apache bands, Valor was informing Goodwin about how much Apache identity, knowledge, spirituality, and social order had been changed and shaped by the events of the nineteenth century.

The power of Mount Graham, as well as the sacred knowledge that surrounds that place, was nowhere made more clearly than when anthropologist Kaut was told in the 1953-1954 by Goodwin’s former Apache assistant, informant, and guide that Goodwin “got too close to the power”/the “Mountain Spirits” (*Gaan*)/the supernatural, and was taken by the mountain gods.⁴³⁵ That Goodwin died of a brain tumor in 1940 is a shame for anthropology, the Western Apaches who considered him “like a brother,” and the opportunity that he might have lived to have aided the Apaches in their late twentieth century efforts to halt the telescope development on Mount Graham—an affront to their

45, Folder 22. For more on Rope, see Grenville Goodwin, “Experience of an Indian Scout, Part I,” *Arizona Historical Review*, vol. 7, no. 1 (Jan 1936), 31-68; Grenville Goodwin, “Experience of an Indian Scout, Part II,” *Arizona Historical Review*, vol. 7, no. 2 (Apr 1936): 31-73; Basso, *Western Apache Raiding & Warfare*, 93.

⁴³³ Grenville Goodwin, “Subseries E: Western Apache: Goodwin Field Notes (biographies)”: “Stories From the Life of Palmer Valor (C. G. 5—Tag Number—White Mountain Band—‘Life of Palmer Valor,’” in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 45, Folder 14.

⁴³⁴ Basso, *Western Apache Raiding & Warfare*, 41.

⁴³⁵ Charles Kaut to author, email, 8 Jun 2002.

sacred geography, an insult to their sense of place, and a scar on the landscape that many of Goodwin's informants would surely have lamented.⁴³⁶

Conclusion

Western Apaches—as documented since the 1600s—occupied a large amount of territory in Arizona and New Mexico, which included the mountains and especially Mount Graham. Various people, especially Americans, tried to divorce the Apaches from the land by using military force that removed Indians and then attacked the land itself. Americans also used the tools of historical revisionism and mythmaking. In order to marginalize Apache claims to the Southwest and Mount Graham, Americans renamed spaces, mountains, locations, rivers, and valleys; implied a more limited Apache territorial base; and focused on how the Apaches did not “use” the land to its potential. Americans also used a divide-and-conquer strategy during the Apache campaigns and afterwards into the present. Although the mountain has been spiritually necessary for the Apaches for a long time, Americans tried to disrupt those connections as a way to accomplish its goals. In the current, ongoing struggle for Mount Graham since the 1980s, and the use of Mount Graham for astronomy, is a part of this strategy.

The creation of the White Mountain Reserve in Arizona, combined with the onslaught of mining interests, lumber companies, Arizona settlers, Mormons, and legislative allies, and the Camp Grant Massacre, made the early 1870s a horrifying time for Apaches that put into motion an effort to take away Apache land, Apache land-people connections, spirituality, and other cultural strengths. The continued shrinking and dividing of reservation lands took a toll on Apaches removed to San Carlos. By the late 1870s, settlers were camping on Mount Graham and travelling to the mountain peaks of Arizona to escape the heat. One woman, Mary (May) Banks Stacey, who had once taken part in the first and only military travel in 1857 from Texas to California by imported camels and eventually helped create a New Age spiritual organization and planetarium,

⁴³⁶ In a letter, his Apache friend, Suzie Wright of Bylas, Arizona, told Goodwin, “I thought of you as my brother. Even if you are a whiteman but in my mind you are like an Indian.” Quoted in Goodwin, *Like a Brother*, n.p.

wrote about her experiences camping on Mount Graham.⁴³⁷ The early 1870s were the beginning of the end of Apache dominance and control of their homelands in Arizona.

Cochise told General Gordon Granger in September 1871: “I want to live in these mountains [Dragoon Mountains]. I do not want to go to Tularosa. That is a long ways off. The flies on those mountains eat out the eyes of the horses. The bad spirits live there. I have drank of these waters and they have cooled me; I do not want to leave here.”⁴³⁸

According to military surgeon Turrill, who was sent by the U.S. government to help establish a reservation in southwestern New Mexico, Cochise also said, “This for a very long time has been the home of my people.... We came to these mountains about us.... The Spanish ... never tried to drive us from our homes in these mountains.... Soon many soldiers came ... and my people were driven to the mountain hiding places; but these did not protect us, and soon my people were flying from one mountain to another.... Over these mountains, [Apache] homes” are found, according to Cochise.⁴³⁹ Similar comments about mountain homelands of the Southwest and the connections of Apaches to particular location homes, are found in numerous places. Mescalero Apaches have noted important mountains on their reservation.⁴⁴⁰ The mountainous regions of the Southwest were everything to various Apache groups in Arizona and New Mexico.

By 1886, just months before Geronimo’s surrender, the mountains that historically provided shelter, food, and spiritual connections for Apaches, would help to end the U.S. wars against Apaches and solidify military and governmental control of

⁴³⁷ Sandra L. Myers, ed., “An Arizona Camping Trip: May Banks Stacey’s Account of an Outing on Mount Graham in 1879,” *Arizona and the West*, vol. 23, no. 1 (Spring 1981): 53-64. See Sandra Myers, *Westering Women and the Frontier Experience, 1800-1915* (Albuquerque: University of New Mexico Press, 1997); Lewis Burt Lesley, ed., *Uncle Sam’s Camels: The Journal of May Humphrey Stacey Supplemented by the Report of Edward Fitzgerald Beale* (1929; Berkeley: University of California Press and Huntington Library Press, 2006). See also, <http://egyptianmuseumscribe.blogspot.com/2009/02/dream-of-stars-brief-look-at-historic.html>.

⁴³⁸ Virginia Irving Armstrong, *I Have Spoken: American History Through the Voices of the Indians* (Chicago: Sage Books/The Swallow Press, 1971), 96. See also, A. N. Ellis, “Recollections of an Interview with Cochise, Chief of the Apaches,” in William E. Connelley, ed., *Collections of the Kansas State Historical Society, 1913-1914*, vol. XIII (Topeka, KS: W. R. Smith, Kansas State Printing Plant, 1915), 387-392.

⁴³⁹ Turrill, “A Vanished Race of Aboriginal Founders,” 19-20; Ball, *Indeh*, 28; Armstrong, *I Have Spoken*, 187.

⁴⁴⁰ Armstrong, *I Have Spoken*, 133.

Apache people and their traditional homelands. By the 1880s, finding effective ways to monitor Apache travels and respond with military action became the highest priority. Indeed, communication became essential in the new territory. In 1886, General Nelson Miles replaced General Crook as Army Commander against Geronimo. Miles was informed that, “‘Those Indians could go over mountain country better than white men;’ ‘they could signal from one mountain range to another.’” According to Miles, “The mountain labyrinths of the Apaches” were utilized well.⁴⁴¹ “We have heard much said about the physical strength and endurance of these Apache Indians, these natives of the desert and mountain,” Miles once acknowledged to a U.S. Army Surgeon.⁴⁴² He then asked the surgeon if the Apache was superior to the best U.S. soldiers, if the Apache “superiority . . . was hereditary,” and if Apache “lungs are really of greater development and capacity to endure the exertion of climbing these mountains than those of our best men.”⁴⁴³ Trying to learn more about his adversary was only one of Miles’ intentions. He had to undermine the power and strength of what the Apaches knew best—the mountain ranges of the Southwest. Without a doubt, Apaches “possessed an accurate knowledge of the mountain passes, occupying the almost inaccessible ranges and using a system of signal-fires by which information could be telegraphed from one mountain peak to another,” remarked Miles.⁴⁴⁴

Miles put his knowledge of the experimental heliograph for sending communication signals, used in the Yellowstone Department in Montana against Chief Joseph and the Nez Percé, to good use against the Apaches and the territories that they knew better than anyone.⁴⁴⁵ According to historian Frank C. Lockwood, “At Miles’

⁴⁴¹ Nelson A. Miles, *Personal Recollections and Observations of General Nelson A. Miles, Embracing a Brief View of the Civil War or From New England to the Golden Gate and the Story of His Indian Campaigns with Comments on the Exploration, Development and Progress of Our Great Western Empire* (Chicago and New York: The Werner Company, 1896), 480.

⁴⁴² Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 487.

⁴⁴³ Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 488.

⁴⁴⁴ Ellis, “Recollections of an Interview with Cochise,” 388.

⁴⁴⁵ Bruno J. Rolak, “General Miles’ Mirrors: The Heliograph in the Geronimo Campaign of 1886,” *Journal of Arizona History*, vol. 16, no. 2 (1975), 145-160; Lewis Coe, *The Telegraph: A History of Morse’s Invention and its Predecessors in the United States* (1993; Jefferson, NC: McFarland & Company, 2003), 10. See *Arizona Highways*, vol. 43, no. 6 (Jun 1967); Alan Harfield, *The Heliograph: A Short History*, 2nd ed. (Dorset, England: Royal Signals Museum, 1986).

request General William B. Haza, Chief Signal Officer of the Army, sent a body of officers and men highly skilled in the use of this instrument to establish and operate the heliograph in the Department of Arizona. Twenty-seven intercommunicating stations were established on high mountain peaks in Arizona and New Mexico.”⁴⁴⁶ Mount Graham was one of the peaks included in this system. In fact, “When Gen. Nelson A. Miles established his heliograph system to keep track of the movement of the Indians (cf. Geronimo), Station No. 3 of his system was established on the top of this peak. The soldiers used a mirror and sunlight in order to flash signals.”⁴⁴⁷ The men stationed on Mount Graham at Heliograph Peak were supplied “with the best field glasses and telescopes that could be obtained, and also with the best heliostats.”⁴⁴⁸ Even with the advanced technology, military personnel noted the problems associated with telescope work and heliograph communication on Mount Graham in the 1890s. In 1893, “passing clouds began to be very troubling, causing work to be slow,” “cloud cover prevented work” on several occasions, and oftentimes Mount Graham “was enveloped in haze all day.”⁴⁴⁹ It is worth pointing out that when telescopes were placed on Mount Graham in 1886, they often became useless; Mount Graham creates its own cloud cover.

⁴⁴⁶ Lockwood, *The Apache Indians*, 294.

⁴⁴⁷ Granger, *Will C. Barnes' Arizona Place Names*, 128.

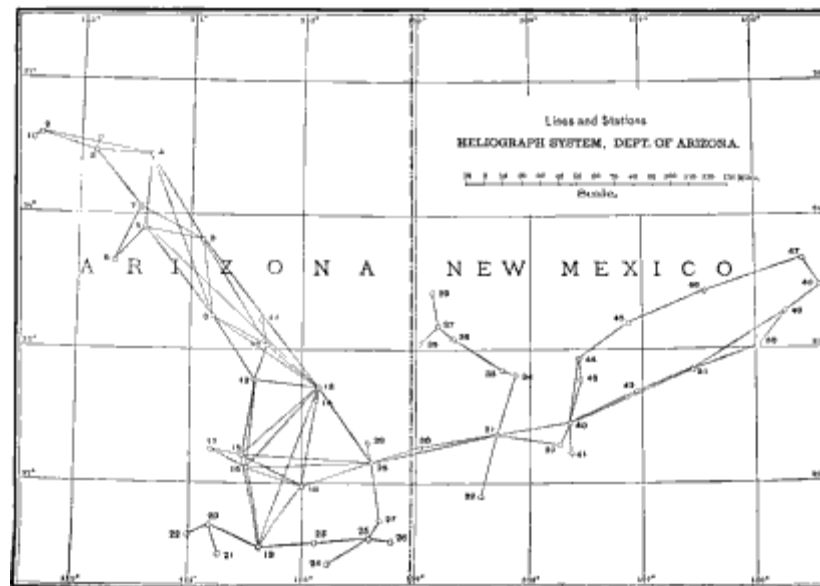
⁴⁴⁸ Nelson A. Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 481.

⁴⁴⁹ John P. Finley, “Important Practical Necessities in Military Signaling,” in *The United Service: A Monthly Review of Military and Naval Affairs*, vol. IX, New Series (Philadelphia: L. R. Hamersly & Co., 1893), 552, 553. See also, *Annual Report of the Secretary of War for the Year 1895*, vol. 1 (Washington: Government Printing Office, 1895), 584; *The Friend. A Religious and Literary Journal*, vol. LXIII, no. 43 (24 May 1890), in *The Friend: A Religious and Literary Journal* (Philadelphia: Wm. H. Pile’s Sons, 1890), 344; American Association for the Advancement of Science, *Science: A Weekly Newspaper of all the Arts and Sciences*, vol. XV, No. 382, in *Science: An Illustrated Journal*, vol. XV (New York: N. D. C. Hodges, 1890), 335.



clouded mountain.⁴⁵⁰

⁴⁵⁰ Mount Graham Coalition, “Mt. Graham—a vulnerable old-growth summit boreal forest—an irreplaceable cradle of evolution” (self-published compendium, Sep 2002), 3. According to caption accompanying the photograph, “Mt. Graham generates its own cloud cover. Mt. Graham’s vigorous summer monsoons, winter rains and snowstorms sustain a mountain possessing more life zones than any other solitary mountain in N. America. . . . Only half the nights are ‘clear,’ making astronomy cost-ineffective.” Thanks to Bob Witzeman for providing me with a copy of the original photograph.



Heliograph System map, Department of Arizona⁴⁵¹

Despite the problems of weather for heliograph technology, it was ultimately the mountain ranges of the Southwest that had for so long sustained Apache life and culture that would be subdued by the U.S. military and used against them, that played arguably the largest role in the subjugation of Apaches and their removal onto reservations. If Mount Graham and other mountain ranges had not been removed from reservation boundaries and used for the heliograph system, and if Apaches had not been moved to places in some cases far from their immediate ancestral lands, Apaches would have continued to easily resist the onslaught of government efforts to exterminate them and take away their lands. By occupying the “high mountain peaks,” Miles had the “advantage ... in observing the movements of the Indians ... in the valleys below, and in reporting it promptly to the central station or headquarters; also in communicating with the various commands, posts and stations in the field.”⁴⁵² On April 20, 1886, Miles ordered that by working in conjunction with signal detachments, “The infantry will be used in hunting through ... the ranges of mountains, the resorts of the Indians, [and]

⁴⁵¹ Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 484.

⁴⁵² Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 482.

occupying the important passes in the mountains.”⁴⁵³ As one historian pointed out, “His mobile infantry, Miles used to search out the enemy’s common resorts and lurking places in the nearer mountain ranges.”⁴⁵⁴ Indeed, Miles put it best: “I had it in my mind to utilize for our benefit and their discomfiture, the very elements that had been the greatest obstacles in that whole country to their subjugation, namely, the high mountain ranges.”⁴⁵⁵ He put such military strategy and efforts to good work. Combined with lies and misrepresentations, Geronimo’s trust of Charles Gatewood, and a series of other factors, Geronimo surrendered to Miles on September 3, 1886, thus ending the so-called “Indian Wars” of the Southwest and officially ending Apache control and use of most of the mountains of their traditional homelands. Despite the wishes of Geronimo and his men who told Gatewood that they wanted to return “to the White Mts the same as before,” it would not be.⁴⁵⁶ As military surgeon Turrill noted at the turn of the twentieth century,

From that beautiful mountain country that the Apache loved so well and defended so bravely all are gone. In the sweltering heat of the San Carlos Reservation are gathered a few scattered remnants of these mountain bands, while the last of the irreconcilables, Geronimo and Loco, with a few followers, still exist in banishment under the shadow of Fort Sill, [Oklahoma].

Because of the creation of Apache reservation in Arizona, and by the turn of the twentieth century, Mount Graham sat outside any reservation boundaries, making it difficult to find Indian sources from the written historical record. What we often know about Mount Graham between the end of the nineteenth century and now, other than from the work of Goodwin, is located in forest service records, the recollections of visitors to Mount Graham, studies of the ecological characteristics of the mountain, and governmental reports regarding lumber, mining, and other business endeavors. We also know something about Mount Graham through the work of Western Apaches on roads,

⁴⁵³ Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 485.

⁴⁵⁴ Lockwood, *The Apache Indians*, 294.

⁴⁵⁵ Miles, *Personal Recollections and Observations of General Nelson A. Miles*, 481.

⁴⁵⁶ Charles Bare Gatewood to Mrs. C. B. Gatewood, 26 Aug 1886. Photocopy from Arizona Pioneer’s History Society, in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University, Box 14, Folder 1.

farms, and elsewhere. *Indians at Work*, the serial by Collier at the Indian Affairs Office, described the Apaches employed by the I.E.C.W., but their work was mostly conducted at San Carlos and Fort Apache, while work on Mount Graham during the 1930s and 1940s was conducted by non-native employees of the C.C.C. from all over the United States.

Nevertheless, the Apache were industrious, and in the early decades of the twentieth century, they continued to know their way around the mountains of the Southwest. In 1902, “a large party of Apaches worked on the construction of a road near Bowie, and another group worked in the Pinal Mountains, receiving a \$1.25 a day. Employment of the latter group was formally protested by the Metal Miners’ local at Globe, but the protest was overruled.”⁴⁵⁷ According to an article from the 1920s, Apaches “built, under the supervision of white engineers, the first good road ever constructed in the State [of Arizona]—from Phoenix to the Roosevelt dam-site, eighty miles to the east. This is known as Apache Trail and is one of the most famous in America. The highway practically follows the trail of the Apaches through these mountains.”⁴⁵⁸ Apaches worked on the Coolidge Dam Project from 1924 to 1930 and then in agricultural employment (mostly cotton-picking) in Safford, in the shadow of Mount Graham.

In the 1930s, “Off-reservation wage work ... was virtually non-existent. During this decade nearly every member of the [San Carlos] Apache Tribe returned to the reservation, where economic support was provided by a large scale program of construction and development and by the founding of the modern cattle industry.”⁴⁵⁹ Occasional jobs after 1886 took Apaches off reservation, but they often returned home on weekends. Although the Apaches worked mostly on the reservation—and government funded programs for their “benefit” kept them there—there were connections maintained

⁴⁵⁷ William Y. Williams, “Wage Labor and the San Carlos Apache,” Part 1: “The Development of San Carlos Wage Labor to 1954,” in Keith H. Basso and Morris E. Opler, eds., *Apachean Culture History and Ethnology*, Anthropological Papers of the University of Arizona, no. 21 (Tucson: The University of Arizona Press, 1971), 119. See also the following fascinating chapters in the same volume: Michael W. Everett, “White Mountain Apache Medical Decision-Making”; Keith Basso, “‘To Give Up on Words’: Silence in Western Apache Culture.”

⁴⁵⁸ n. a., “The Apache Indian as Roadbuilder,” *Literary Digest*, vol. 83, no. 4 (1924): 25. See the photograph that accompanies this article.

⁴⁵⁹ Williams, “Wage Labor and the San Carlos Apache,” Part 1: “The Development of San Carlos Wage Labor to 1954,” 122.

to sacred practices. For example, throughout the late nineteenth and twentieth century, girls' puberty ceremonies never ceased. Furthermore, the San Carlos Apaches created holy places on the reservation. "The support for ritual at San Carlos is also found in the operation of several 'holy grounds.' At one such ground an Apache family spends most of its time guarding and maintaining the sacred territory."⁴⁶⁰ In spite of governmental policies and white American racial sentiments, especially in towns and cities nearby where businesses posted "no Apache" signs and kept Apaches on the reservations, Apaches resisted the dominant culture by trying to maintain their sacred practices and their traditional ways in the generations following Geronimo's surrender.⁴⁶¹

In the more than 100 years since, many Apaches did not leave the boundaries of the San Carlos or Fort Apache reservations. It is understandable that the Apache claims to Mount Graham throughout much of the twentieth century are at first glance hard to come by. Since much of the literature about Apaches—to this day—focuses on military encounters and white soldier's accounts, rather than the way in which Apaches lived or live, historians have little materials on which to draw. The Apache silences are therefore profound. Yet many of the reasons why Apaches did not talk about and used the mountain sparingly from the end of the nineteenth century onwards has to do with laws and repression. In one of his monthly serial reports from the 1930s, Collier complained about Indian oppression: "The effect of existing statutes is to make it possible for the Department of its local representatives to deny freedom of assemblage to Indians on the reservations and to prohibit Indians from going from one place to another."⁴⁶² Many Apaches also feared the loss of sacred knowledge and the giving away of information that could lead to the destruction of place. Among others, Apaches had the example of their cousins, the Navajo, who have resisted the onslaught of white Americans on their sacred places. When the waters of Lake Powell were approaching sacred Rainbow Bridge,

⁴⁶⁰ Gordon V. Krutz, "Wage Labor and the San Carlos Apache," Part 2: "San Carlos Apache Wage Labor in 1970," in Basso and Opler, eds., *Apachean Culture History and Ethnology*, 132.

⁴⁶¹ See Martin Taylor (Center for Biological Diversity) to Robert Witzeman, "White racism metastatizing [sic.] in Show Low," email, 5 Jul 2002.

⁴⁶² John Collier, Office of Indian Affairs, U.S. Department of the Interior, *Indians at Work: A News Sheet for Indians and the Indian Service* (Washington, D.C.), (15 Feb 1934): 10.

historian Karl Luckert documented the significance of the flooding of sacred Navajo Nation lands.

After some initial hesitations, about whether information and samples of this sacred tradition should ever be entrusted to tape recorders and to paper, all of our informants decided that the seriousness of the situation demanded that they risk the unprecedented. And even though the limits of conscience varied from one informant to another, their reasoning was generally this: “The gods will not object when we, their people, try to protect their own sacred places and bodies.”⁴⁶³

Rainbow Bridge was in 1993 partially protected, as visitors are now asked to visit in a respectful manner. Apaches have lost so much by giving away land, sacred knowledge, and other information, that they are always fearful of outsiders based on that history of which sacred places such as Rainbow Bridge, the San Francisco Peaks, and Mount Graham, for example, is a part. Oftentimes, once knowledge is shared it is either used against them or the proponents of proposals move forward anyway. Luckert’s discussion of sacred springs, mountains, and caves—“sacred bodies” all—has many parallels in the case of the Apache struggle for Mount Graham.⁴⁶⁴

Apaches are always secretive and weary of any “outsider who probes for information about closely held secret knowledge.” Like many Native peoples, according to documentary filmmaker Toby McCleod, “Past history has shown [them] that it is a huge risk to be open about these subjects. The best of intentions have unintended consequences.”⁴⁶⁵ For this reason alone, Apaches have not been forthcoming in court. Moreover, given the worry about what might happen to Mount Graham if the locations, stories, and history of sacred sites were revealed, it seems unlikely that Western Apaches will ever go forward with the formal listing process of Mount Graham as traditional cultural property. The mountain is eligible for listing. It will remain eligible, without additional action by Apaches.

⁴⁶³ Karl W. Luckert, *Navajo Mountain and Rainbow Bridge Religion*, American Tribal Religions, vol. 1 (Flagstaff: Museum of Northern Arizona, 1977), vii.

⁴⁶⁴ See Nabokov, *Where the Lightning Strikes*, 102-104.

⁴⁶⁵ Toby McCleod, “Explosive History,” Sacred Land Film Project, <http://www.sacredland.org/weblog/?p=203>, 5 Mar 2008.

Without divulging sacred knowledge regarding Mount Graham, the arguments that the existing literature allows us to make, however, are many.⁴⁶⁶ The first is that Apaches lived in mountains—always. Among other uses, Apaches went to the mountains for food, safety, burials, ceremonial rites, and to store items in caves. Apache *gaan*, which live in the mountains, have lasted before and during the reservation years. The second is that usually four mountain ranges, whether to Tewa, Jicarilla Apaches, or Western Apaches, generally make up a traditional homeland of an Indigenous population and are sacred. The third point is that Apaches continued to keep their traditions alive, through ceremonies, food, language, and connections to the land throughout the reservation period to the present. Apaches never ceased their efforts to connect to the land and resist U.S. military and governmental initiatives to limit their movement, land, language, and culture. Quite important is the fact that Apaches have a deep knowledge of and connection to the land, as was the case during the nineteenth century and earlier when Apaches moved with ease across large spaces throughout the Southwest. We see this connection in twentieth century works by scholars such as Goodwin and Basso, among others, but also during earlier periods in work by military officials and anthropologists in the nineteenth century. Fourth, Apaches did not travel to their sacred places on a weekly basis, like other people would to a temple or church. And despite the fact that during certain times of the year Apaches lived on sacred mountains, they did not live within certain sacred areas on the mountains. The Apaches held a different connection to their sacred places.

That Apaches held their cards close to their chests, except in few instances, with regards to Mount Graham is not surprising. If we consider the history of various forms of oppression, is it surprising that Apaches are unwilling to share information in court or elsewhere about their sacred Mount Graham—or about their other sacred peaks, for that matter? The taking away of place, combined with the lopsided transactions involving Apaches and white anthropologists and museum curators during the nineteenth and

⁴⁶⁶ See the filmed interview with Basso in Goël, *Le Garçon S'Appelait Apache* (This Boy's Name was Apache).

twentieth centuries, is tantamount to the destruction of place and violence against a people—indeed, the theft of the sacred.

Perhaps the most important argument for the sacredness and sacred character of Mount Graham came in 2002 when Western Apaches were able to prove and then assert their connections to Mount Graham as “Traditional Cultural Property,” as far as the U.S. federal government is concerned.⁴⁶⁷ That action alone should have removed any of the gaps of “proof” that naysayers have historically lobbed against the Apaches who have worked to protect their sacred Mount Graham.⁴⁶⁸ Mount Graham is the largest and most extensive—at approximately 330,000 acres—property listed on or formally determined eligible for the National Register of Historic Places. Armed with such support, Apaches have continued to resist and work against colonialism, for their connections to the past and to their sacred places are deeply intertwined with what is happening in the present.

Collier knew about the power, significance, and living presence of mountains in the Southwest. “They are living social will, striving in a present form out of which this enormous past . . . has not died,” wrote Collier. What is also significant are the words that Collier used to describe Indians in the present:

Our minds are prone toward stereotypes; and one of those stereotypes is “history,” conceived as a linear past gone forever; one of our stereotypes is “the present,” conceived as all that moves in this instant, along this knife edge of linear time. Not thus is it possible to think realistically of the ancient-present Indians. Their past, a propulsive actuality within their social ideal and memory (a past never committed by them to books and then laid away), is imminent and enormous in their present.⁴⁶⁹

The past and present are inseparable in Apacheria, specifically with regards to sacred lands struggles. The history of the struggle for Mount Graham—indeed, the struggle for

⁴⁶⁷ See, National Park Service, “Determination of Eligibility Notification”; Stauffer, “Historic status set for Mount Graham”; “Historic status for Mount Graham may help Apache fight observatory,” *Indian Country Today*. See also, Brandt, “Executive Summary of the Preliminary Investigation of Apache Use and Occupancy and Review of Cultural Resource Surveys of the Proposed Mt. Graham Astrophysical Area.”

⁴⁶⁸ See Thomas E. Sheridan to Charles W. Polzer, S. J., 19 May 1992. See also, Andrea Lee Smith, *Sacred Sites, Sacred Rites* (American Indian Community House and the National Council of the Churches of Christ in the USA, 1998), 13.

⁴⁶⁹ Collier, *Patterns and Ceremonials of the Indians of the Southwest*, 27.

Apache health, spirituality, and homelands—is not a static history locked in the past but a living history getting played out in the present.⁴⁷⁰

A recent article regarding the anniversary of the 1871 massacre discussed the lasting legacies of colonialism, as well as the modern-day struggles by Western Apaches to memorialize tragic events and combat colonialism in the present. Indeed, Western Apaches are generating “alternative historical interpretations, questions, and imaginations” in order to transcend the colonial and imperial past of the United States in the present and future.⁴⁷¹

That move to the San Carlos reservation, [Ian] Record notes, was only the first constriction of their lands. Boundaries were pushed farther north and east to make way for mining claims. The old capital at San Carlos was later flooded to create a reservoir mostly for the benefit of downstream non-Indian farmers.

“Aravaipa,” said Record, “is a perfect example of what happens when the places we rely on are destroyed or weakened and our ability to engage those places is restricted,” he said.

The Apaches’ connection to ancestral lands, central to their sense of themselves, was severed, and the scars remain, he said.

San Carlos Tribal Chairman Wendsler Nosie Sr. said the Apaches did not simply lose land when they were pushed onto the reservations. They lost important connections between nature and their language, culture and spirituality.

Restoring those connections requires that sites be preserved, he said. “Being victims of our past, being displaced, has played a big part of our identity,” Nosie said.

“That’s my biggest push right now, is to regain that identity.”⁴⁷²

⁴⁷⁰ See the film by William “Sky” Crosby for the Apache Survival Coalition, *Traditional Apache Elders Visit Mount Graham* (Tucson: ECO Productions, 2001).

⁴⁷¹ Yuichiro Onishi to author, personal communication, Fall 2001 and Fall 2006.

⁴⁷² Tom Beal, “Curing ‘amnesia’ about state’s most blood-soaked day,” *Arizona Daily Star* (Tucson), 3 May 2009, <http://www.azstarnet.com/sn/fromcomments/291314.php>. See Bonnie Henry, “Advocate for Apache language,” *The Arizona Daily Star* (Tucson), n.d.



Duke W. Sine (Yavapai/San Carlos Apache), “The Mountain Spirit Protecting *Dzil nchaa si an* (Mount Graham)”⁴⁷³

⁴⁷³ “Call to the University of Virginia to Respect American Indian Religious Freedom and Dzil Nchaa Si An (Mount Graham),” advertisement, *C-Ville Weekly* (Charlottesville, VA), 14-20 May 2002.

The one process ongoing that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us.⁴⁷⁴

—E. O. Wilson

⁴⁷⁴ Quoted in Bob Witzeman, “A Banner Month for the Environment,” *The Cactus Wren* (Newsletter of the Maricopa Audubon Society, Phoenix), Jan-Feb 2000.

THEY PAVED PARADISE AND PUT UP A TELESCOPE*

In his famous 1949 work, *Sand County Almanac*, ecologist, forester, and a founder of the Wilderness Society, Aldo Leopold, recounted his role in killing wolves because local governments and conservation policies had for centuries called for the elimination of certain species.⁴⁷⁵ After he had shot into the pack, he moved in closer to inspect his efforts. As he put it, “We reached the old wolf in time to watch a fierce green fire dying in her eyes.” Continued Leopold, “I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters’ paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.”⁴⁷⁶ He titled this chapter of his book, “Thinking Like a Mountain,” and concluded, “Only the mountain has lived long enough to listen objectively to the howl of the wolf.” Leopold realized that killing a top predator not only had serious implications for the rest of an ecosystem, but for humans as well. “Perhaps this is behind Thoreau’s dictum: In wildness is the salvation of the world,” wrote Leopold. “Perhaps this is the hidden meaning in the howl of the wolf, long known among mountains, but seldom perceived among men.”⁴⁷⁷ Human efforts in the Southwest to extirpate gray wolves (*Canis lupus*)

* The Joni Mitchell song titled “Big Yellow Taxi,” which has been covered by artists such as Bob Dylan, Amy Grant, and most recently by Counting Crows, and includes the lyrics “They paved paradise and put up a parking lot,” came to mind as I began to write this chapter. Thanks go to Jason Eden, Walt Friauf, David Hodges, Dwight Metzger, David Roediger, Aaron Shapiro, Robin Silver, Tom Waddell, Peter Warshall, and Bob Witzeman for their assistance with the preparation of this chapter.

⁴⁷⁵ Paul D. Barclay, “A ‘Curious and Grim Testimony to a Persistent Human Blindness’: Wolf Bounties in North America, 1630-1752,” *Ethics, Place and Environment*, vol. 5, no. 1 (March 2002): 25-34; Rick McIntyre, *War Against the Wolf: America’s Campaign to Exterminate the Wolf* (Stillwater, MN: Voyageur Press, 1995); Jon Coleman, *Vicious: Wolves and Men in America* (New Haven: Yale University Press, 2004); and William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill & Wang, 1983).

⁴⁷⁶ Aldo Leopold, *A Sand County Almanac: And Sketches Here and There* (New York: Oxford University Press, 1949), 130. See also, U.S.D.A. Forest Service, “Report on Galiuro Wild Area (Formerly Galiuro Primitive Area)” (26 Dec 1939 and 3 Feb 1940), 3: “Mountain lion are numerous, too much so for the good of the deer.”

⁴⁷⁷ Leopold, *A Sand County Almanac*, 133. See also, Christopher Manes, “The Culture of Extinction,” in *Green Rage: Radical Environmentalism and the Unmaking of Civilization* (Boston: Little, Brown and Company, 1990), 23-44.

and, for example, Black-tailed prairie dog (*Cynomys ludovicianus*), especially on or near the Pinaleno Mountains, known for its tallest peak, Mount Graham, have displayed colonialism, in ever mutating forms, and a human/nature divide from the nineteenth century to the present.⁴⁷⁸

In similar ways to the wolf, the Mount Graham red squirrel—although by no means a predator—plays a critical role as an indicator species that informs scientists about the health of an ecosystem and evolutionary biology, and enables scientists and others to make informed decisions about policies regarding places such as Mount Graham (*dzil nchaa si'an*).⁴⁷⁹ The squirrel is the most recent victim in a long history of white European Americans trying to assert their control over the environment of the American West, especially this mountain.⁴⁸⁰ Although the Mount Graham red squirrel is at the

⁴⁷⁸ See David E. Brown and Neil B. Carmony, *Aldo Leopold's Southwest* (1990; Albuquerque: University of New Mexico Press, 1995). See important work on Mount Graham by Donald F. Hoffmeister, "Mammals of the Graham (Pinaleno) Mountains, Arizona," *American Midland Naturalist*, vol. 55, no. 3 (Apr 1956): 257-288; Donald F. Hoffmeister, *Mammals of Arizona* (Tucson: University of Arizona Press, 1986), 28-29.

According to a 1942 publication of the Coronado National Forest, "Wild turkey ... [were] extirpated on the forest" and "Trout are still scarce." U.S.D.A. Forest Service, Southwest Region, Coronado National Forest, "Coronado National Forest" (Washington: Government Printing Office, 1942), 10, 11.

⁴⁷⁹ See the work by H. Reed Sanderson and John L. Koprowski, eds., *The Last Refuge of the Mt. Graham Red Squirrel: Ecology of Endangerment* (Tucson: University of Arizona Press, 2009), as well as a number of forthcoming studies by John L. Koprowski and his UA research group regarding the Mount Graham red squirrel. In some ways, Mount Graham is the most studied mountain in the U.S. Not counting the general biological studies of the Southwest, or Arizona and Mexico, that have discussed the mountain, numerous studies have been conducted on Mount Graham. See, for example, Blaine E. Dinger and Duncan T. Patten, "Carbon Carbon Dioxide Exchange and Transpiration in Species of *Echinocereus* (Cactaceae), as Related to Their Distribution within the Pinaleno Mountains, Arizona," *Oecologia*, vol. 14, no. 4 (1974): 389-411; J. R. Vahle and D. R. Patton, "Red Squirrel Cover Requirements in Arizona Mixed-Conifer Forests," *Journal of Forestry*, vol. 81 (1983): 14-15, 22; D. R. Patton and J. R. Vahle, "Cache and Nest Characteristics of the Red Squirrel in an Arizona Mixed Conifer Forest," *Western Journal of Applied Forestry*, vol. 1, no. 2 (1986), 48-51; C. F. Froehlich, "Habitat Use and Life History of the Mount Graham Red Squirrel" (masters thesis, University of Arizona, 1990); Paul J. Young, Vicki L. Greer, and Sheri K. Six, "Characteristics of Bolus Nests of Red Squirrels in the Pinaleno and White Mountains of Arizona," *The Southwestern Naturalist*, vol. 47, no. 2 (Jun 2002): 267-275; John L. Koprowski, "Annual Cycles in Body Mass and Reproduction of Endangered Mt. Graham Red Squirrels," *Journal of Mammalogy*, vol. 86, no. 2 (Apr 2005): 309-313.

⁴⁸⁰ The number of excellent works in environmental history is nearly limitless. Conquering water, animals, and landscapes nearly everywhere involved the subjugation of both Indigenous peoples and the environment. See Cronon, *Changes in the Land*; Nancy Langston, *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (Seattle: University of Washington Press, 1995); Mark Fiege, *Irrigating Eden: The Making of an Agricultural Landscape in the American West* (Seattle: University of Washington Press, 1999); Mark David Spence, *Dispossessing the Wilderness: Indian*

center of recent struggles for Mount Graham, it is the mountain itself—a sacred cradle of unique life—about which scientists have attempted to consider, especially during more than 140 years. Like the Apaches, who argue that the recent astrophysical development and the power lines carved into its canyons have harmed their mountain ancestor and the home of the *gaan* supernaturals, environmentalists have claimed that inappropriate use, combined with environmental degradation of various kinds, have also had a negative impact on this place. As scholars such as anthropologist Patricia Albers have pointed out, sacred places to Indigenous Peoples are also generally amazing places ecologically. In other words, places such as Mount Graham are unique on multiple levels. That is why people and plants and animals live on, use, and respect them.⁴⁸¹ This uniqueness is also the reason why Apaches have found allies among the environmentalists who have also sought to protect Mount Graham and its squirrel inhabitants over the decades before the telescope projects of the 1980s and beyond.

This chapter is an effort to create an ecological “biography” of Mount Graham from the 1870s, when the Western Apaches lost outright control of the mountain, to 1987-1988, when the Mount Graham red squirrel was listed as an Endangered Species, an effort that the University of Arizona attempted to thwart while it simultaneously attempted to gain a foothold on the mountain.⁴⁸² Ironically, years earlier, at nearly the

Removal and the Making of the National Parks (New York: Oxford University Press, 2000); Karl Jacoby, *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001); Joseph E. Taylor, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 2001); Paul S. Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2004); Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies*, (New York: W. W. Norton, 1997); and other important environmental histories and works by Robert Bullard, Luke Cole, William Cronon, Alfred Crosby, Mike Davis, Tim Flannery, Sheila Foster, Al Gedicks, Dan Flores, Andrew Hurley, Paul Kennedy, Patricia Nelson Limerick, William McNeil, J. R. McNeill, Carolyn Merchant, Roderick Nash, Jennifer Price, Stephen Pyne, Ted Steinberg, Derek Wall, Richard White, and Donald Worster, among many others. See Karl Jacoby, “We Are All Western Historians Now,” *Reviews in American History*, vol. 29, no. 4 (Dec 2001), 614-620.

⁴⁸¹ Patricia Albers, testimony to the Faculty Senate Research Committee, University of Minnesota, Minneapolis, 9 Feb 2004.

⁴⁸² Some of the best sources regarding the environmental history of Mount Graham and the controversies regarding the astrophysical complex are: Maricopa Audubon Society, “Biogeography of the High Peaks of the Pinalenos,” 1-39, n.d.; Charles Bowden, “How the University [of Arizona] Knocked Off Mount Graham,” *City Magazine* (Tucson), 1 Jan 1989, 28-36; Elizabeth Pennisi, “Biology versus Astronomy: The Battle for Mount Graham,” *BioScience*, vol. 39, no. 1 (Jan 1989): 10-13; Paul W. Hirt, “Mount

same time that Apaches were placed on reservations and commercial logging began, the Southwest began to experience lasting changes to this territory of both Western Apache and Mount Graham red squirrel, including a warmer and dryer climate.⁴⁸³ Just as Apaches had felt the strong arm of the U.S. government and military since the nineteenth century, the Mount Graham red squirrel felt the brunt of multiple human activities since the early twentieth century. Both the mountain and the Apaches suffered because of these natural and unnatural actions.

Graham ‘Squirrels vs. Scopes’: A Case Study in Natural Resources Management Decision Making,” at the conference, “Solving Environmental Problems: The Past as Prologue to the Present,” American Society for Environmental History and the Northwest Association for Environmental Studies, 27-30 Apr 1989; Paul W. Hirt, “Endangered Arizona Ecosystem Threatened by Telescope Development: The Mt. Graham Red Squirrel Controversy,” *Endangered Species Update* (The University of Michigan School of Natural Resources), vol. 7, no. 6 (1990): 1-6; Stephen Jay Gould, “The Golden Rule: A Proper Scale for Our Environmental Crisis,” *Natural History*, vol. 99 (Dec 1990), 24-30; Evelyn Martin, “The Last Mountain—Mount Graham in Arizona,” *American Forests*, 99 (March-April 1993): 44-47; John Dougherty, “Star Whores: The Ruthless Pursuit of Astronomical Sums of Cash and Scientific Excellence,” *Phoenix New Times*, vol. 24, no. 25 (16-22 June 1993), 2-11; Donald O. Straney, “Mount Graham International Observatory: An Evolutionary Biologist’s Perspective” (Prepared for the Dean’s Student Advisory Committee, College of Natural Resources, Michigan State University, 22 Nov 1993), 1-19; Peter Warshall, “The Biopolitics of the Mt. Graham Red Squirrel (*Tamiasciurus hudsonicus grahamensis*),” *Conservation Biology*, vol. 8, no. 4 (December 1994): 977-988; John Dougherty, “Making a mountain into a starbase: The long, bitter battle over Mount Graham,” *High Country News*, 27, no. 13 (24 Jul 1995); Elizabeth A. Brandt, “The Fight for *dzil ncha si’an*, Mount Graham: Apaches and Astrophysical Development in Arizona,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), 19, no. 4 (Winter 1996), 50-57; Janice Emily Bowers, “Mount Graham, Pinaleno Mountains,” *The North American Review*, vol. 281, no. 6 (Nov/Dec 1996), 10-12; Giovanni B. A. M. Panza, “The Impaling of Apache Holy Ground: No Conflict Resolution on Mt. Graham” (master’s thesis, Prescott College, Arizona, 1997), 1-50; Alice Feldman, “Othering Knowledge and Unknowing Law: Colonialist Legacies, Indigenous Pedagogies, and Social Transformation” (PhD diss., Arizona State University, 1998); Gregory McNamee, “Mountain Under Heavens,” *terrain.org: A Journal of the Built and Natural Environments*, no. 8 (Autumn 2000), <http://www.terrain.org/articles/8/mcnamee.htm>; Derrick Jensen, *A Language Older Than Words* (2000; White River Junction, VT: Chelsea Green Publishing Company, 2004), 177-191; Paul W. Hirt, “Biopolitics: A Case Study of Political Influence on Forest Management Decisions, Coronado National Forest, Arizona, 1980s-1990s,” in Christopher J. Huggard and Arthur R. Gómez, eds., *Forests Under Fire: A Century of Ecosystem Mismanagement in the Southwest* (Tucson: University of Arizona Press, 2001), 241-286; Christopher Wallace, “The Mt. Graham Red Squirrel: A Case Study” (senior thesis, SUNY College of Environmental Science and Forestry, 23 Apr 2008), 1-13; Stephen J. Pyne, “The Wildland/Science Interface” (unpublished essay, 27 Aug 2009), 1-9; and forthcoming work by Debbie Williams (PhD diss., Arizona State University). For a general, overall history of the mountain and the Weech family, who have lived near Mount Graham since the late nineteenth century, see Allen Bertell Weech and Cherrel B. Weech, *A History of Mount Graham* (2000; Safford, AZ: privately published, 2003).

⁴⁸³ See the excellent essay by Paul W. Hirt, “The Transformation of a Landscape: Culture and Ecology in Southeastern Arizona,” *Environmental Review: ER*, vol. 13, no. 3/4 (Autumn-Winter 1989): 167-168.

This biography, or history, of Mount Graham discusses the role of this unique “island” ecosystem, the desires of various interests in the biodiversity of this place, and the failure of U.S. environmental laws in the face of special interests. This history is rooted within the context of colonialism, scientists’ knowledge of Mount Graham, and the various groups that have struggled for and that have had an interest in the control, use, and colonization of this place, including the U.S. military and president, white Americans in Arizona, lumber companies, the Forest Service, and astronomers.⁴⁸⁴ “Mount Graham is a metaphor for the genocide and subjugation of American Indian peoples implemented through colonial administration, federal law, and popular U.S. culture and history,” wrote sociologist Alice Feldman.⁴⁸⁵ The mountain is also a representation of a struggle for human values, land ethics, and environmental rights—all within the larger history of colonization of the Southwest. As historian William Cronon once argued, “Our project must be to locate a nature which is within rather than without history.”⁴⁸⁶ The word struggle—geological, ecological, mammalian, human—best characterizes Mount Graham’s history.

⁴⁸⁴ See Feldman, “Othering Knowledge and Unknowing Law,” 2, 10-11. See also, Julie Cruikshank, *Do Glaciers Listen?: Local Knowledge, Colonial Encounters, and Social Imagination* (University of Washington Press, 2005). Some scholars have asked questions such as, can we write history from the perspective of animals, forests, or mountains? See Bruce Braun, *The Intemperate Rainforest: Nature, Culture, and Power on Canada’s West Coast* (Minneapolis: University of Minnesota Press, 2002).

⁴⁸⁵ See Feldman, “Othering Knowledge and Unknowing Law,” 10. See important work regarding colonialism, Indians, and the environment by Vine Deloria, Jr., Donald A. Grinde, Jr., Winona LaDuke, Linda Tuhiwai Smith, and Christopher Vecsey and Robert W. Venables, among many others.

⁴⁸⁶ Cronon, *Changes in the Land*, 15.



Mount Graham.⁴⁸⁷

Hudsonian Forests, Sky Islands, and the Mount Graham Red Squirrel

The Pinaleno Mountains run just south of the Gila River in Southeastern Arizona. The highest peak in the range is Mount Graham at 10,720 feet. As visitors make their way up Arizona's fourth highest mountain (after the San Francisco Peaks, Mount Baldy, and Escudillo Peak, in that order), they pass through five life or vegetative zones, the most of any isolated mountain in the United States.⁴⁸⁸ As a traveler starts her journey on the

⁴⁸⁷ Mount Graham Coalition, "Mt. Graham—a vulnerable old-growth summit boreal forest—an irreplaceable cradle of evolution" (self-published compendium, Sep 2002), 3.

⁴⁸⁸ Brandt, "The Fight for *dzil ncha si'an*, Mount Graham." In 1889, biologist C. Hart Merriam developed the concept of a Life Zone as a way to describe areas with similar animal and plant communities. This concept was a significant milestone in the late nineteenth century development of the science of ecology. See C. H. Merriam and L. Steineger, U.S. Department of Agriculture, Division of Ornithology and Mammalogy, *Results of a Biological Survey of the San Francisco Mountain Region and the Desert of the Little Colorado, Arizona*, North American Fauna Report 3 (Washington: Government Printing Office, 1890); Arthur M. Phillips, III, Dorothy A. House, and Barbara G. Phillips, *Expedition to the San Francisco Peaks: C. Hart Merriam and the Life Zone Concept* (Flagstaff, AZ: Museum of Northern Arizona Plateau, 1989), vol. 60, no. 2, 19-30; Keir B. Sterling, *The Last of the Naturalists: The Career of C. Hart Merriam* (New York: Arno Press, 1974); Jess Huffman, "Astronomy Industry Threatens Sacred Site: Vatican Denies Apache Claim to Religious Significance: Studies Falsified by Wildlife Officials," *21st Century News* (West Palm Beach, FL), Nov 1993.

desert floor, in the Lower Sonoran Zone at approximately 3321 feet, Prickly Pear, Barrel Cactus, Cinolla Ocotillo, Yucca, and Creosote Bush are abundant. The climate at this elevation is similar to Northern Mexico. Taking the Swift Trail, a road paved nearly to the top of Mount Graham in the 1930s, visitors will pass through the Upper Sonoran Zone from 4500 to 6500 feet, seeing Emory and Arizona White Oak and Alligator Juniper, as well as some Pinon and Chihuahau Pine in higher elevations. Continuing on, the traveler enters a Transition Zone from 6500 to 8500 feet. A traveler encounters Chihuahua Pine, Ponderosa Pine, Mexican White Pine, White Fir, Douglas Fir, Utah White Oak, Silverleaf Oak, Netleaf Oak, Maple, and Alder. The next area is the Canadian Zone from 8500 to 10500 feet. Ponderosa Pine, Mexican White Pine, White and Douglas Fir, Aspen, Birch, Maple and Dogwood are all prevalent in this zone. Lastly is the Boreal or Hudsonian Zone, where Engelmann's Spruce, Aspen, and Alpine Fir—all standing within a 615 acre ancient, Pleistocene forest that was never logged—are prevalent.⁴⁸⁹

⁴⁸⁹ See W. F. Heald, "Sky Islands of Arizona," *Natural History*, vol. 60 (February 1951): 56-63, 87-96; Straney, "Mount Graham International Observatory," 16. See also, Forrest Shreve, "Conditions Indirectly Affecting Vertical Distribution on Desert Mountains," *Ecology*, vol. 3, no. 4 (Oct 1922): 269-274; W. P. Martin and J. E. Fletcher, "Vertical Zonation of Great Soil Groups on Mt. Graham, Arizona, as Correlated with Climate, Vegetation and Profile Characteristics," *Arizona Agricultural Experiment Station Technical Bulletin*, vol. 99 (Tucson: University of Arizona, 1943): 91-153; Hoffmeister, "Mammals of the Graham (Pinaleno) Mountains, Arizona"; Joe T. Marshall, *Birds of Pine-Oak Woodland in Southern Arizona and Adjacent Mexico*, Pacific Coast Avifauna, Cooper Ornithological Society, no. 32 (1957): 1-125; P. S. Martin, "Southwestern Animal Communities in the Late Pleistocene," in L. M. Shields and L. F. Gardner, eds., *Bioecology of the Arid and Semiarid Lands of the Southwest, New Mexico Highlands University Bulletin* (1961): 56-66; Carl Kice Brown, "Local Variation in Scale Characteristics of *Sceloporus jarrovi* (Sauria: Iguanidae) Inhabiting the Pinaleno Mountains of Arizona. I. Frequency of Head Scute Polymorphisms," *Herpetologica*, vol. 32, no. 2 (Jun 1976): 193; Thomas E. Waddell and David E. Brown, "Exploitation of Two Subpopulations of Black Bears in an Isolated Mountain Range," *Journal of Wildlife Management*, vol. 43, no. 3 (1984): 933-934; U.S.D.A. Forest Service, "Coronado National Forest Plan" (Coronado National Forest, Tucson, AZ, 1986) (See U.S.D.A. Forest Service, Coronado National Forest website, http://www.fs.fed.us/r3/coronado/forest/projects/forest_plan/1986-plan/index.shtml); R. H. Mohlenbrock, "This Land: Mount Graham, Arizona," *Natural History*, vol. 96 (Mar 1987), 88-90; Julie C. Stromberg and Duncan T. Patten, "Dynamics of the Spruce-Fir Forests on the Pinaleno Mountains, Graham Co., Arizona," *The Southwestern Naturalist*, vol. 36, no. 1 (Mar 1991): 37-48; Straney, "Mount Graham International Observatory," 1-2; Juliet C. Stromberg and Duncan T. Patten, "Seed and Cone Production by Engelmann Spruce in the Pinaleno Mountains, Arizona," *Journal of the Arizona-Nevada Academy of Science*, vol. 27, no. 1 (1993): 79-88; Joe T. Marshall, "Birds of Coniferous Forest on Mount Graham, Arizona," *The Wilson Bulletin*, vol. 107, no. 4 (Dec 1995): 719.

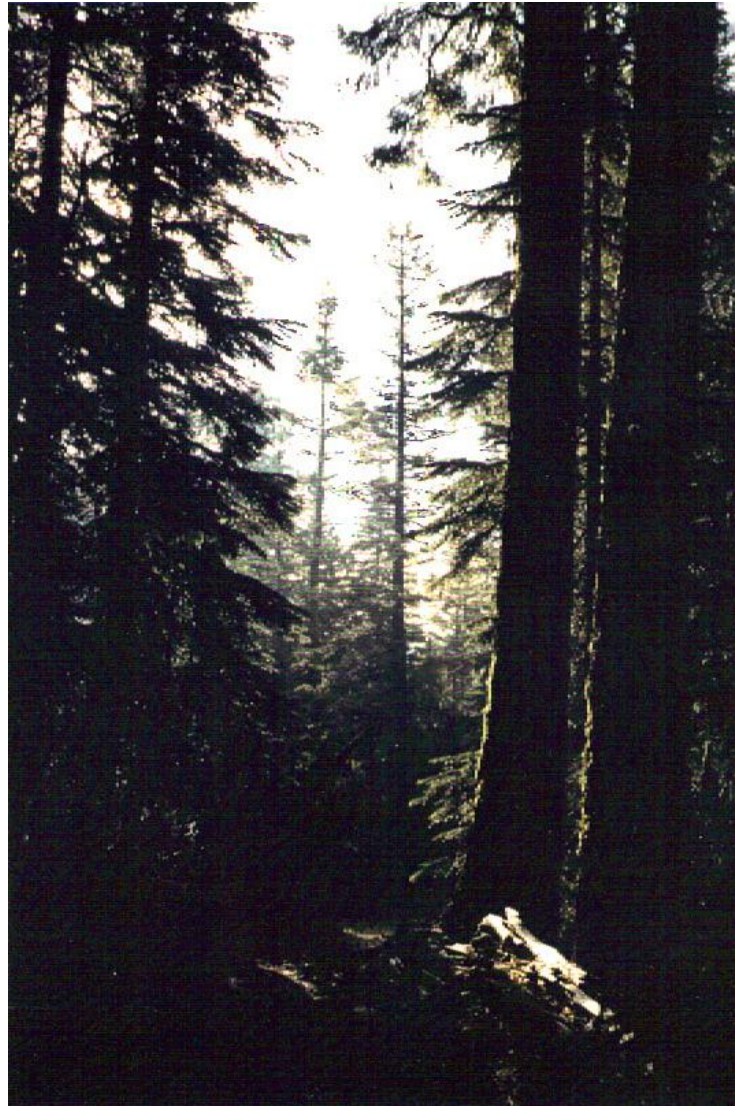
This journey is similar to traveling from Northern Mexico to the Hudson Bay in northern Canada in approximately one hour.⁴⁹⁰



The old-growth summit of Mount Graham prior to UA clear-cutting.⁴⁹¹

⁴⁹⁰ Martin, "The Last Mountain." Volkswagen of Germany has, since about 1995, tested its vehicles on Mount Graham "because Volkswagen, for purposes of heat and altitude, need a mountain that gains a lot of altitude quickly." See Stuart Alan Becker, "Mount Graham re-opens," *Eastern Arizona Courier* (Safford, AZ), vol. 114, no. 30, 24 Jul 2002.

⁴⁹¹ Thanks to Bob Witzeman for this photograph.



Dense, old-growth, never logged Mount Graham forest.⁴⁹²

While the journey begins at the desert floor where temperatures can reach 120 degrees Fahrenheit in August, for example, the journey's end could see temperatures at or below 50 degrees. If visitors make it to the spruce-fir forest, they will be fortunate to have reached the top of a mountain that has the southern-most Hudsonian boreal forest in the United States. In fact, the closest ecosystem that looks anything like this place is several thousand miles away in Canada. Mount Graham has been isolated “geographically,

⁴⁹² Thanks to Bob Witzeman for providing me with a copy of this photograph.

ecologically, and genetically” since the last Ice Age.⁴⁹³ “For plants and animals, the Pinalenos represent a kind of biological escarpment between the Rocky Mountains and the Mexican highlands, a Maginot Line between northern and southern forms,” according to Janice Emily Bowers, a botanist for the U.S. Geological Survey in Tucson.⁴⁹⁴ For example, “The Pinalenos are the northern limit for Sierra Madrean lizards (including *S. jarrovi*) and most ‘Mexican’ snakes, since the Gila River to the north is an effective barrier to dispersal.”⁴⁹⁵ As some biologists have pointed out, “The herpetofauna of the Graham Mountain area is rich and varied.” Indeed, Mount Graham nearly always extends the known boundaries of many species.⁴⁹⁶ It has the densest population of black bear (*Ursus americanus*) and mountain lion (*Felis concolor*) in the Southwest and has healthy populations of other predators, including “one of the highest quality habitats in the Southwest for the Mexican spotted owl (*Strix occidentalis lucida*).”⁴⁹⁷ It is also home to Bobcat (*Lynx rufus*), Peregrine Falcon (*Falco peregrines*), Northern Goshawk (*Accipiter gentilis*), Cooper’s Hawk (*Accipiter cooperii*), and threatened Apache Trout

⁴⁹³ See Larry S. Allen, Richard L. Wadleigh, Peter Warshall, R. Barry Spicer, “Biological Assessment for Mt. Graham Red Squirrel (*Tamiasciurus hudsonicus grahamensis*)” (Jun 1987), 1; Mark V. Lomolino, James H. Brown, and Russell Davis, “Island Biogeography of Montane Forest Mammals in the American Southwest,” *Ecology*, vol. 70, no. 1 (Feb 1989): 180-194; U.S.D.A. Forest Service, Southwestern Region, Coronado National Forest, “The Coronado National Forest Works for You!” (n.d. [1963 or 1964]), n.p.

⁴⁹⁴ Bowers, “Mount Graham,” 10; Janice Emily Bowers, “Hospital Flat,” “A Broken Mountaintop,” “Ash Creek,” and “Lefthand Canyon,” in *Fear Falls Away and Other Essays from Hard and Rocky Places* (Tucson: University of Arizona Press, 1997), 72-79, 80-87, 96-104, 119-127.

⁴⁹⁵ Douglas E. Ruby and Arthur E. Dunham, “A Population of the Ovoviviparous Lizard *Sceloporus jarrovi* in the Pinaleno Mountains of Southeastern Arizona,” *Herpetologica*, vol. 40, no. 4 (Dec 1974): 433.

⁴⁹⁶ Max A. Nickerson and Charles E. Mays, “A Preliminary Herpetofaunal Analysis of the Graham (Pinaleno) Mountain Region, Graham Co., Arizona with Ecological Comments,” *Transactions of the Kansas Academy of Science (1903-)*, vol. 72, no. 4 (Winter 1969): 503.

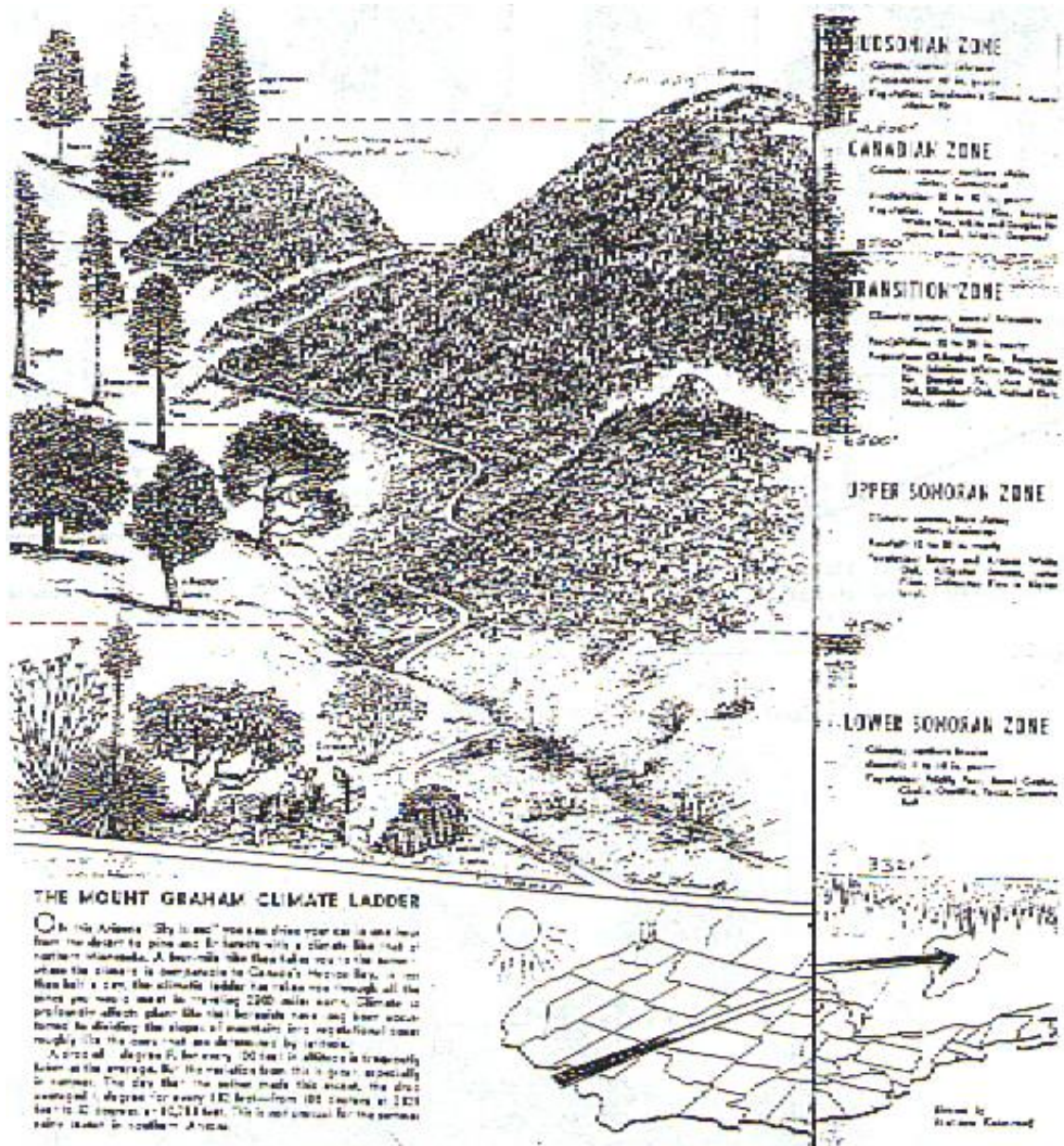
⁴⁹⁷ Panza, “The Impaling of Apache Holy Ground,” 5; Thomas E. Waddell and David E. Brown, “Weights and Color of Black Bears in the Pinaleno Mountains, Arizona,” *Journal of Mammalogy*, vol. 65, no. 2 (1984): 350-351; Waddell and Brown, “Exploitation of Two Subpopulations of Black Bears in an Isolated Mountain Range,” 933-938; Bowden, “How the University Knocked Off Mount Graham,” 30; Peter Warshall, “Southwestern Sky Island Ecosystems,” in E. T. LaRoe, G. S. Farris, C. E. Puckett, P. D. Doran, and M. J. Mac, eds., *Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of US Plants, Animals, and Ecosystems* (Washington: U.S. Biological Service, 1995), 318-322; G. F. Froehlich, “Biological Assessment and Evaluation for Clark Peak Fire Emergency Suppression and Rehabilitation,” Consultation #60658793, USDA Forest Service, Coronado National Forest, Safford Ranger District, Graham County, Arizona, Aug 1996. See Tom Waddell to author, email, 21 Jan 2008.

(*Oncorhynchus gilae apache*).⁴⁹⁸ Visitors may find one of several mollusks at the top that are endangered, although it is difficult to catch a glimpse of the nearly-extinct Mount Graham red squirrel.⁴⁹⁹ Eighteen species are found nowhere else in the world but on this mountain and are therefore genetically and reproductively isolated.⁵⁰⁰ Mount Graham, a priceless cradle of biodiversity, is at the heart of this chapter.

⁴⁹⁸ Carol A. Schauffert, John L. Koprowski, Vicki L. Greer, Marit I. Alanen, Kelly A. Hutton, and Paul J. Young, "Interactions Between Predators and Mt. Graham Red Squirrels (*Tamiasciurus hudsonicus grahamensis*)," *The Southwestern Naturalist*, vol. 47, no. 3 (Sep 2002), 498-501; Pyne, "The Wildland/Science Interface," 3.

⁴⁹⁹ Straney, "Mount Graham International Observatory," 2, 6.

⁵⁰⁰ S. P. Rushton, D. J. A. Wood, P. W. W. Lurz, and J. L. Koprowski, "Modelling the Population Dynamics of the Mt. Graham Red Squirrel: Can We Predict Its Future in a Changing Environment with Multiple Threats?" *Biological Conservation*, vol. 131, no. 1 (Jul 2006): 121-131; Robert Miles Sullivan and Terry L. Yates, "Population Genetics and Conservation Biology of Relict Populations of Red Squirrels," in Conrad A. Istock and Robert S. Hoffmann, eds., *Storm Over a Mountain Island: Conservation Biology and the Mt. Graham Affair* (Tucson: University of Arizona Press, 1995), 193-209.



Life Zones of the Pinaleno Mountains.⁵⁰¹

Visitors to Mount Graham know that this is a remarkable place, an ancient ecological wonder in the middle of an often waterless sea of desert. Indeed, according to Tom Waddell, who conducted long-standing black bear studies on Mount Graham and “found the Mt. Graham red squirrel after they had been declared extinct for 10 years,” the “mountain is comparatively well-watered. Nine canyons have perennial streams, and

⁵⁰¹ Heald, “Sky Islands of Arizona.”

there are numerous springs and seeps.”⁵⁰² According to Giovanni Panza, “The central massive is nine miles long (14.4 km), to three miles (4.8 km) at its widest point, sitting at 9,000 feet (2,743 m), walled up by five thousand feet (1,524 m) of almost vertical slopes.”⁵⁰³ Mount Graham is located south of the Colorado Plateau, east of the Sonoran Desert, west of the Chihuahuan Desert, and north of the Sierra Madre Occidental.⁵⁰⁴ Five major bioregions come together in Arizona and New Mexico, making it an amazing place for humans such as the Western Apaches who call this land home and the plants and animals who thrived in this special place for centuries. Mount Graham once had “the southernmost, pristine, old-growth stands of Engelmann spruce” (*Picea engelmannii*) and corkbark fir (*Abies lasiocarpa* var. *arizona*), as well as some of the oldest trees in the Southwest.⁵⁰⁵ In fact, the mountain is home to the oldest tree in Southern Arizona, *Pseudotsuga menziesii*, a Douglas-fir growing on the cliffs of Mount Graham with a tree ring date of 1257 A.D.⁵⁰⁶

As numerous scholars have pointed out, it is important to situate Mt. Graham in its ecological context within the “Sky Islands” of New Mexico, Arizona, and Mexico.⁵⁰⁷

⁵⁰² Waddell and Brown, “Exploitation of Two Subpopulations of Black Bears in an Isolated Mountain Range,” 934; David E. Brown, Neil B. Carmony, and R. M. Turner, “Drainage Map of Arizona showing Perennial Streams and Some Important Wetlands,” Map (Phoenix: AGFD, 1981).

⁵⁰³ Panza, “The Impaling of Apache Holy Ground,” 5.

⁵⁰⁴ G. Bodner, “Island in the Sky,” *Wild Forest Review*, 1994; Russell Davis and David E. Brown, “Role of Post-Pleistocene Dispersal in Determining the Modern Distribution of Abert’s Squirrel,” *Great Basin Naturalist*, vol. 49, no. 3 (1989): 425-434; Lomolino, Brown, and Davis, “Island Biogeography of Montane Forest Mammals in the American Southwest”; Arthur H. Harris, “Fossil Evidence Bearing on Southwestern Mammalian Biogeography,” *Journal of Mammology*, vol. 71, no. 2 (May 1990): 219-229; Straney, “Mount Graham International Observatory,” 3.

⁵⁰⁵ Panza, “The Impaling of Apache Holy Ground,” 5-6. See Andrew A. Smith and R. William Mannan, “Distinguishing Characteristics of Mount Graham Red Squirrel Midden Sites,” *The Journal of Wildlife Management*, vol. 58, no. 3 (Jul 1994): 437-445; Juliet C. Stromberg and Duncan T. Patten, “Vegetation Dynamics of the Spruce-Fir Forests in the Pinaleno Mountains,” in Conrad A. Istock and Robert S. Hoffmann, eds., *Storm over a Mountain Island: Conservation Biology and the Mt. Graham Affair* (Tucson: University of Arizona Press, 1995), 89-99; Randy Babb, “Mt. Graham Red Squirrel: Going, Going ...,” *Wildlife Views* (AGFD, Jan 1990), 1-3; Royal S. Kellogg, “Forest Conditions in Southern Arizona,” *Forestry and Irrigation*, vol. 8, no. 12 (Dec 1902): 502.

⁵⁰⁶ Panza, “The Impaling of Apache Holy Ground,” cover page. See Thomas W. Swetnam and Peter M. Brown, “Oldest Known Conifers in the Southwestern United States: Temporal and Spatial Patterns of Maximum Age,” in M. R. Kaufmann, W. H. Moir, and R. L. Bassett, eds., *Old-Growth Forests in the Southwest and Rocky Mountain Regions: Proceedings of a Workshop*, 9-13 Mar 1992, Portal, AZ, USDA Forest Service (General Technical Report RM-213, Jun 1992): 33.

⁵⁰⁷ David Hodges to author, personal communication, 12 Aug 2002. The term “sky island” has been around for a long time. See Harold E. Anthony, “Scientist Describes Visit to Unknown Island in the Sky,” *The*

There are approximately 20 Sky Island complexes on the planet, of which Mount Graham is especially important. Sky Islands have a stack of biotic communities and are located on nearly every continent.⁵⁰⁸ Mount Graham has “exceptional vertical stacking of biotic communities,” according to biologist Peter Warshall, one of the preeminent experts regarding Sky Island ecology and biogeography, and the Mount Graham red squirrel.⁵⁰⁹ Having studied a number of Sky Islands globally, Warshall wrote, “The southwestern sky island ‘archipelago’ is unique on the planet. It is the only sky-island complex extending from subtropical to temperate latitudes (compared to the Great Basin, the Venezuelan, and the African sky islands) with an exceptionally complex pattern of species of northern and southern origins.”⁵¹⁰ The Pinaleno Mountains are the tallest Sky Island ecosystem in the Coronado National Forest. Panza stated, “The Pinalenos support the largest number of ‘stacked’ life zones, or biotic communities (from Upper Sonoran, or Madrean, to Hudsonian, or Boreal) in the shortest vertical distance of any mountain in North

Science News-Letter, vol. 32, no. 862 (16 Oct 1937), 245-247, 252-254. For the growing literature on Sky Islands, see Heald, “Sky Islands of Arizona”; Marshall, *Birds of Pine-Oak Woodland in Southern Arizona and Adjacent Mexico*; Brown, “Local Variation in Scale Characteristics of *Sceloporus jarrovi* (Sauria: Iguanidae) Inhabiting the Pinaleno Mountains of Arizona,” 193-194; Frederick R. Gehlbach, *Mountain Islands and Desert Seas: A Natural History of the U.S.-Mexican Borderlands* (College Station: Texas A&M University Press, 1981); Peter Warshall, “Biogeography of the High Peaks of the Pinalenos,” *Environmental Data Book*, U.S. Forest Service, Coronado National Forest (reprint, Phoenix: Maricopa Audubon Society, 1986); Kate Crowley and Michael Link, *The Sky Islands of Southeast Arizona* (Stillwater, MN: Voyageur Press, 1989); Lomolino, Brown, and Davis, “Island Biogeography of Montane Forest Mammals in the American Southwest”; Stromberg and Patten, “Seed and Cone Production by Engelmann Spruce in the Pinaleno Mountains,” 79; Weldon Heald, *The Chiricahuas Sky Island* (Tucson: Bantlin Pub., 1993); Straney, “Mount Graham International Observatory,” 3; the proceedings for the 1994 Madrean Archipelago/Sky Islands Conference: Leonard F. DeBano, et. al., eds., *Biodiversity and Management of the Madrean Archipelago: The Sky Islands of the Southwestern United States and Northwestern Mexico* (General Technical Report RM-GTR-264), 19-23 Sep 1994; Warshall, “Southwestern Sky Island Ecosystems”; and John P. Wilson, *Islands in the Desert: A History of the Uplands of Southeastern Arizona* (Albuquerque: University of New Mexico Press, 1995); McNamee, “Mountain Under Heavens”; For information on the importance of understanding mountain environments, see Dan Flores, “Mountain Islands, Desert Seas: Mountains in Environmental History,” in Karen K. Gaul and Jackie Hiltz, eds., *Landscapes and Communities on the Pacific Rim: Cultural Perspectives from Asia to the Pacific Northwest* (Armonk, NY: M. E. Sharpe, 2000), 75-88.

⁵⁰⁸ Peter Warshall, “The Madrean Sky Island Archipelago: A Planetary Overview,” in *Biodiversity and Management of the Madrean Archipelago*, 8.

⁵⁰⁹ Peter Warshall, “Astronomy and Animals on Mt. Graham,” (Review: Conrad A. Istock and Robert S. Hoffmann, eds., *Storm Over a Mountain Island: Conservation Biology and the Mt. Graham Affair*), in *Conservation Biology*, vol. 10, no. 5 (Oct 1996): 1480.

⁵¹⁰ Warshall, “Southwestern Sky Island Ecosystems.”

America.”⁵¹¹ According to recent studies of the Coronado National Forest, Mount Graham “is not only the highest peak in southern Arizona but also the highest Sky Island in the region. The Pinaleños span the greatest elevation change on the Coronado National Forest rising roughly 6,800 feet from semidesert grasslands at the desert floor to mountainous woodlands at the highest peaks. The Pinaleño Ecosystem Management Area (EMA) encompasses 198,884 acres, making it the second largest Management Area on the Forest.”⁵¹²

As noted by Warshall, “A sky island is an isolated mountain range surrounded by valleys of desert that act as barriers to gene flow.”⁵¹³ Mount Graham “has supported the southernmost, relict spruce/fir forest in North America with the southernmost glacial features in the United States and the southernmost population of *Tamiasciurus hudsonicus*, the Mt. Graham red squirrel (*[Tamiasciurus hudsonicus grahamensis]*).” This unique mountain evolved differently. There are approximately “30 or so endemic, rare, threatened, endangered, and unique distributions of plants and animals” on Mount Graham, according to Warshall.⁵¹⁴ Given that one in four mammals worldwide, according to the International Union for Conservation of Nature, are likely to become extinct, the threats to the Mount Graham red squirrel are many.⁵¹⁵ The effects of the most recent incursions into squirrel habitat, including events of the last 140 years, are unknown, as are the influence of various outside forces, including global warming, that will most likely work to extirpate this tiny animal.⁵¹⁶ Such species habitat is easily comparable to the Hawaii Islands, Galápagos Islands, Madagascar, or Hengduan Mountains in China—

⁵¹¹ Panza, “The Impaling of Apache Holy Ground,” 5.

⁵¹² Coronado Planning Partnership, “Pinaleño Ecosystem Management Area,” in *State of the Coronado National Forest: An Assessment and Recommendations for the 21st Century*, Working Draft: 5 Nov 2008, 3; Russell. A. Mittermeier, Patricio Robles Gil, Michael Hoffmann, John Pilgrim, Thomas Brooks, Christina Goettsch Mittermeier, John Lamoreux, Gustavo A.B. da Fonseca, *Hotsspots Revisited: Earth’s Biologically Richest and Most Endangered Terrestrial Ecoregions* (Prepared by CEMEX, Conservation International and Agrupación Sierra Madre, 2004).

⁵¹³ Warshall, “Astronomy and Animals on Mt. Graham,” 1479.

⁵¹⁴ Warshall, “Astronomy and Animals on Mt. Graham,” 1480.

⁵¹⁵ Bryan Walsh, “The New Age of Extinction,” *Time*, 13 Apr 2009, 46.

⁵¹⁶ Tom Beal, “UA-run observatory harms Pinaleños’ forest, enviros and Forest Service say,” *Arizona Daily Star* (Tucson), 8 Dec 2009; “Mt. Graham red squirrel still at risk,” editorial, *Arizona Daily Star* (Tucson), 8 Dec 2009; Tom Beal, “Undoing damage on Mt. Graham: Rare squirrels, observatory complicate \$7 million plan,” *Arizona Daily Star* (Tucson), 8 Dec 2009.

only much smaller. In fact, a number of scientists, most significantly paleontologist Stephen Jay Gould, have either alluded to or directly referred to the Pinaleno Mountains as North America's Galápagos.⁵¹⁷ As Warshall put it, "It's the equivalent of the Galapagos Islands... It's a mountain island, but instead of being surrounded by an ocean, it's surrounded by desert."⁵¹⁸

Although the history of this Galápagos-like Sky Island ecosystem began during the last Ice Age, nearly 12,000 years ago, when its summit most likely "attracted Columbian mammoth and other megafauna," its role in U.S. history began during the late nineteenth century when the landscape of Mount Graham began to change.⁵¹⁹ As the U.S. Forest Service noted, "prior to about 1870, the Pinalenos maintained healthy, resilient ecosystems that were adapted to naturally occurring fire regimes (primarily frequent, low-intensity wildfires)." However, "After European settlement, the natural ecosystem processes were interrupted by passive (overgrazing) and active fire suppression, and harvest of large-diameter trees. The result is that today the forests are composed of overly dense, small-diameter trees and snags with excessive amounts of downed wood. The composition of the mixed-conifer forest between about 8,500 and 10,000 feet (3,000 m) elevation has shifted from fire-adapted to fire-intolerant tree species."⁵²⁰ This change began during the historical human changes that played out decades earlier:

⁵¹⁷ Stephen Jay Gould, "The Golden Rule: A Proper Scale for Our Environmental Crisis," in *Eight Little Piggies: Reflections in Natural History* (New York: W. W. Norton and Co., 1993), 41-51; Gould, "The Golden Rule," *Natural History*: 24-30; Michele F. Forman, "The Battle for Mt. Graham: Can Squirrels Survive The Harvard-Smithsonian Plan? (Gould Slams Squirrel Report, Claiming Misrepresentation)," *The Harvard Crimson* (Harvard University), 29 Oct 1990, 3; Coalition to Save Mt. Graham, "Save a National Biological Treasure: Inland Galapagos Cradle of Evolution," brochure, Jan 1991. See also, Jeffrey St. Clair, "Star Whores: How John McCain Doomed Mount Graham," 16 Jul 2008, www.counterpunch.org. For a comparison between Sky Islands and the "true" islands of Hawaii and Galápagos, see Steven P. McLaughlin, "An Overview of the Flora of the Sky Islands, Southeastern Arizona: Diversity, Affinities, and Insularity," in Leonard F. DeBano, et. al., eds., *Biodiversity and Management of the Madrean Archipelago: The Sky Islands of the Southwestern United States and Northwestern Mexico* (General Technical Report RM-GTR-264), 19-23 Sep 1994: 68-69.

⁵¹⁸ Seth Mydans, "University's Choice: Stars or Squirrels," *The New York Times*, 21 Mar 1990, <http://www.nytimes.com/1990/05/21/us/university-s-choice-stars-or-squirrels.html?pagewanted=all>.

⁵¹⁹ Paul S. Martin, "Overview: Reflections on Prehistoric Turbulence," in Conrad A. Istock and Robert S. Hoffmann, eds., *Storm over a Mountain Island: Conservation Biology and the Mt. Graham Affair* (Tucson: University of Arizona Press, 1995), 246-267.

⁵²⁰ Coronado National Forest, U.S. Forest Service, "Draft Environmental Impact Statement" as part of the Pinaleno Ecosystem Restoration Project, <http://www.fs.fed.us/r3/coronado/perp/index.shtml>, 2009.

Following the Treaty of Guadalupe Hidalgo that ended the Mexican-American War in 1848 and the subsequent Gadsden Purchase of 1853, the United States took on its present day southern boundary in the Sky Island region. The lands the United States obtained under the Gadsden Purchase encompassed much of the Apache homeland leading to inevitable conflict as new discoveries of valuable minerals in the region brought increasing numbers of Anglos settlers. The establishment of U.S. Army garrisons followed, along with rediscovery of silver mines, and the establishment of the Butterfield Overland Trail to carry mail overland between Texas and California. Now that the U.S. Army and Anglo settlers were establishing themselves in the region, conflict with Apache broke out. Much of the next three decades were marked by mutual violence between Anglos and Apache, and ended with the surrender of Geronimo in 1886.⁵²¹

Indeed, by the middle of the nineteenth century, the lives of Western Apaches in Arizona began to change, as the value of Mount Graham and its resource wealth became known to the U.S. military and settlers moving into the areas south of the Gila River. “The job of subduing the mountain had been under way for decades,” wrote one student of the struggle for Mount Graham.⁵²² As pointed out by historian Paul Hirt, “Scientists now judge the huge scale of ecological alterations that occurred in southern Arizona during the late 19th and early 20th centuries as comparable in scope to those that occurred during the late pleistocene.”⁵²³ The human/nature divide accelerated by the 1870s.

U.S. government officials and settlers began to exercise their will on Mount Graham during the 1870s, but especially after 1873 when the mountain was removed from reservation land by executive order.⁵²⁴ Military leaders took their families on summer retreats in the mountains. The aptly named Hospital Flat was established on the mountain to care for sick soldiers from Camp/Fort Grant. In 1886, signals were installed on Heliograph Peak. Eventually, the Columbine campground, named by the Weech

⁵²¹ Coronado Planning Partnership, *State of the Coronado National Forest*, 13.

⁵²² McNamee, “Mountain Under Heavens.”

⁵²³ Hirt, “The Transformation of a Landscape,” 167. See also, U.S. Fish and Wildlife Service, *Unique Ecosystems of Arizona* (Albuquerque: Region 2, 1978); Raymond M. Turner, Robert H. Webb, Janice E. Bowers, and James Rodney Hastings, *The Changing Mile Revisited: An Ecological Study of Vegetation Change with Time in the Lower Mile of an Arid and Semiarid Region* (Tucson: University of Arizona Press, 2003).

⁵²⁴ John R. Welch, “A *dzil nchaa si'an* Chronology” (updated 20 Jan 2008, photocopy), 6.

family for the columbine flower that grows in the area, was established by Mormons.⁵²⁵ But the military use of the mountain for timber, as a retreat for officers and their families, and as use for a heliograph station, initially played the largest role in the process of changing the landscape and land use of the mountain. As John Welch, former Tribal Historic Preservation Officer for the White Mountain Apache Tribe, stated, “The establishment of the station on the Pinalaño Mountains prominence that has become known as Heliograph Peak initiated a long period of road and dam construction, logging, mineral exploration, and other destructive development that culminated in the 1980s observatory proposal.”⁵²⁶ The executive orders by presidents and acts by Congress from the 1870s until the twentieth century laid the framework for treatment of the Apaches, Mount Graham, and the various elements associated with the ecologically unique traditional homeland of the Western Apache people. All of these actions by the military, president, Congress, Mormons, and other interests combined to make a collective onslaught upon Mount Graham and its resources (climate, food, military maneuvering). Thus began a change in the landscape of this sky island.

At the start of the Western Apache reservation period, botanists, geologists, and other scientists collected plant, animal, and other materials from Mount Graham.⁵²⁷ During the U.S. Geographical Survey West of the 100th Meridian, led by Lieutenant George Montague Wheeler from 1871 to 1879 and called the Wheeler survey, which eventually merged with the newly created U.S. Geological Survey, numerous reports were made by scientists and their field assistants regarding the plants, animals, and landscape of the West.⁵²⁸ For example, ornithologist Henry Wetherbee Henshaw analyzed bird-life on Mount Graham; Joseph T. Rothrock, a surgeon, directed the

⁵²⁵ James H. McClintock, *Mormon Settlement in Arizona: A Record of Peaceful Conquest of the Desert* (Phoenix: The Manufacturing Stationers Inc., 1921), 282. See Daniel Scarpinato, “Tense families wait as fire advances on Mt. Graham,” *Arizona Daily Star* (Tucson), 5 Jul 2004; Lesley A. Fitzpatrick, Genice F. Froelich, Terry B. Johnson, and Randall Smith, R. Barry Spicer, “Mount Graham Red Squirrel (*Tamiasciurus hudsonicus grahamensis*) Recovery Plan,” (Albuquerque: U.S. Fish and Wildlife Service, 1993), 92.

⁵²⁶ Welch, “A *dzil ncha si’an* Chronology,” 7.

⁵²⁷ Richard J. Hinton, *The Hand-Book to Arizona: Its Resources, History, Towns, Mines, Ruins and Scenery* (San Francisco: Payot, Upham & Co, 1878), 56, 90, 215.

⁵²⁸ See Richard A. Bartlett, *Great Surveys of the American West* (Norman: University of Oklahoma Press, 1962).

botanical studies for the survey.⁵²⁹ Decades before the end of the nineteenth century, various scientists noted the unique characteristics of Mount Graham; the mountain's biodiversity already caught their attention. With regards to "*Erysimum Wheeleri*," a wallflower described by the Rothrock, "Mount Graham ... had developed some local peculiarities without bringing it any nearer known species."⁵³⁰ Such statements are a testament to the unique characteristics of both plant and animal life on Mount Graham, for members of the Survey were most likely describing *Erysimum capitatum*, a plant endemic to Mount Graham. Rothrock also noted the abundance of *Microstylis montana*, an orchid, usually seen in elevations much farther north. Stated Rothrock in 1874, "It is particularly remarkable in having a dense spike of sessile flowers. Mount Graham, Arizona, at an elevation of 9,500 feet."⁵³¹ Dozens of other flowers were described as having grown on Mount Graham and some "appear[ed] to be a distinct species (probably new)," "sufficiently distinct ... species," or simply "rare."⁵³² Rothrock discovered the first American specimens of *Quercus reticulata* (Net-Leaf Oak) on Mount Graham in 1874.⁵³³ Scientists, more than a decade before heliograph technology was placed on

⁵²⁹ Henry W. Henshaw, *Report Upon the Ornithological Collections Made in Portions of Nevada, Utah, California, Colorado, New Mexico, and Arizona during the Years 1871, 1872, 1873, and 1874* in A. A. Humphreys and George M. Wheeler, *Report Upon Geographical and Geological Explorations and Surveys West of the One Hundredth Meridian, in Charge of First Lieut. Geo. M. Wheeler*, vol. V—Zoology (Washington: Government Printing Office, 1875), 131-508; Joseph T. Rothrock, "Catalogue of Plants Collected in Nevada, Utah, Colorado, New Mexico, and Arizona, with Descriptions of Those Not Contained in Gray's Manual of the Northern U.S., or in Vol. V of the Geological Exploration of the Fortieth Parallel, Clarence King, Geologist in Charge," in *Reports Upon the Botanical Collections Made in Portions of Nevada, Utah, California, Colorado, New Mexico, and Arizona, During the Years 1871, 1872, 1873, 1874, and 1875*, vol. VI.—"Botany," in A. A. Humphreys and George Montague Wheeler, *Report Upon United States Geographical Surveys West of the One Hundredth Meridian, In Charge of First Lieut. Geo. M. Wheeler, Corps of Engineers, U.S. Army, Under the Direction of Brig. Gen. A. A. Humphreys, Chief of Engineers, U.S. Army*, vol. 6—Botany (Washington: Government Printing Office, 1878), 59, 65, 70, 71, 80, 81, 91, 102, 103, 110, 111, 114, 117, 119, 120, 138, 139, 154, 179, 184, 185, 210, 211, 212, 217, 222, 223, 226, 231, 236, 250, 250, 265, 270, 271, 277, 278, 282, 284, 289, 291, 292, 331, 342, 345, and 347.

⁵³⁰ Rothrock, "Catalogue of Plants Collected in Nevada, Utah, Colorado, New Mexico, and Arizona," 65.

⁵³¹ Rothrock, "Catalogue of Plants Collected in Nevada, Utah, Colorado, New Mexico, and Arizona," 265. See also, Donovan Stewart Cornell, *Native Orchids of North America North of Mexico* (1950; Weltham, MA: Chronica Botanica, 1978), 263.

⁵³² See Rothrock, "Catalogue of Plants Collected in Nevada, Utah, Colorado, New Mexico, and Arizona," 139, 284, 342.

⁵³³ John Gill Lemmon, *Oaks of Pacific Slope* (reprint, Oakland: Transactions of Pacific States Floral Congress, 1902), 18.

mountains in Arizona, but after Apaches were compelled to live on government-created reservations, were already exploring the biological diversity of Mount Graham.⁵³⁴

Botanists John Gill Lemmon and Royal S. Kellogg, in 1880 and 1902, respectively, were also some of the earliest collectors of plants from the Pinaleno Mountains.⁵³⁵ Their examples are represented in UA's Herbarium and elsewhere. Extensive collections were made in J. J. Thornber and Forrest Shreve in 1914, by Shreve in 1917, and by Leslie N. Goodding "sporadically" from 1910 to 1961.⁵³⁶ As noted by botanist Steven McLaughlin, "The automobile road to the top of the mountain, called the 'Swift Trail' after former Crook National Forest supervisor T. T. Swift, was started in 1927 and completed as far as Heliograph Peak in 1931. The portion of the road from Heliograph Peak to Clark Peak was built as part of the Civilian Conservation Corps program and was completed in 1938."⁵³⁷ The road made it easy for scholars Robert

⁵³⁴ Sovereignty, geology, and geography intersect at numerous points during the struggle for Mount Graham from 1871 to the present. For histories of Indigenous peoples' engagement with various US landscapes, see Gregory Cajete, ed., *A People's Ecology: Explorations in Sustainable Living* (Santa Fe, NM: Clear Light Books, 1999); Peter Nabokov and Lawrence Loendorf, *Restoring a Presence: American Indians and Yellowstone National Park* (Norman: University of Oklahoma Press, 2004); Spence, *Dispossessing the Wilderness*; Melissa K. Nelson, ed., *Original Instructions: Indigenous Teachings for a Sustainable Future* (Rochester, VT: Bear & Company, 2008); Duane Blue Spruce and Tanya Thrasher, ed., *The Land Has Memory: Indigenous Knowledge, Native Landscapes, and the National Museum of the American Indian* (Chapel Hill: University of North Carolina, 2009).

⁵³⁵ John G. Lemmon, *Ferns of the Pacific Coast, Including Arizona. A Full Conspectus Tribes and Genera, With a Classified List of the Species, Giving Principle Points of Distinction and Localities of Growth* (San Francisco: Bacon & Company, 1882); R. S. Kellogg, "Report on an Examination of the Graham Mountains in Arizona" (n.p., May 1902); Eighth National Watershed Congress, "Field Trip, Santa Catalina Mountains, Tucson, Arizona, Coronado National Forest, April 18, 1961," 6-7.

⁵³⁶ Steven P. McLaughlin, "Additions to the Flora of the Pinaleno Mountains, Arizona," *Journal of the Arizona-Nevada Academy of Science*, vol. 27, no. 1 (1993): 5-6; Forrest Shreve, "The Vegetation of a Desert Mountain Range as Conditioned by Climatic Factors," Carnegie Institution of Washington Publication, vol. 217 (1915): 1-112; Forrest Shreve, "A Comparison of Vegetational Features of Two Desert Mountain Ranges," *Plant World*, vol. 22 (1919): 291-307. See also, Martin and Fletcher, "Vertical Zonation of Great Soil Groups on Mt. Graham"; D. E. Brown, ed., "The Biotic Communities of the American Southwest—United States and Mexico," *Desert Plants*, vol. 4 (1982): 1-342; and W. T. Johnson, "Flora of the Pinaleno Mountains, Graham County, Arizona," *Desert Plants*, vol. 8 (1988): 147-191. For more on Shreve and Goodding, see Janice Emily Bowers, *A Sense of Place: The Life and Work of Forrest Shreve* (Tucson: University of Arizona Press, 1990); U.S.D.A. Forest Service, "Goodding Research Area Named," *Information Digest*, no. 17 (27 Jul 1970).

⁵³⁷ McLaughlin, "Additions to the Flora of the Pinaleno Mountains," 6; USDA Forest Service, "Forest Highway 34 Construction Project (Swift Trail): USDA Forest Service Final Environmental Impact Statement" (Albuquerque, NM, 1976); Charles R. Ames, "A History of the Forest Service," *The Smoke Signal*, vol. 16 (Tucson: The Tucson Corral of the Westerners, Fall 1967), 134. See Robert L. Thomas,

Peebles, Thomas Kearney, and Robert Darrow, as well as members of the Soil Conservation Service, to make collecting trips between 1927 and 1944 on Mount Graham.⁵³⁸ Numerous scholars, including McLaughlin, pointed out that the Pinaleños are an anomaly in the Southwest. Unlike nearby mountains, the Pinaleños stand out because the mountain range actually contains lower species diversity and is so isolated.⁵³⁹

A decade after the conclusion of the Wheeler Survey, on March 21, 1889, as timber harvesting began on the north and east sides of the Pinaleño Mountains, Edward D. Tuttle, the Graham County clerk, “writing from Solomonville, Arizona, . . . says that this squirrel abounds in the mountains of the Graham Range.”⁵⁴⁰ The Mount Graham red squirrel, “an endangered subspecies of *Tamiasciurus hudsonicus*, variously known as the red squirrel, the spruce squirrel, the pine squirrel, and the chickaree,” that he mentioned were well-known and abundant.⁵⁴¹ The Mount Graham red squirrel, as pointed out by paleontologist Gould, “forms the southernmost population of an entire species.”⁵⁴² Like the Kaibab squirrel (a subspecies of Abert’s squirrel) that evolved separately in the Grand Canyon because of its isolation on the Kaibab Plateau above the Colorado River, or the Chiricahua fox squirrel that is “trapped on a sky island” (Chiricahua Peak) in the northernmost part of the species range, the Mount Graham red squirrel (a subspecies of the red squirrel) evolved separately because its habitat is surrounded by a desert.⁵⁴³

“A very special fellow [Charles R. Ames] leaves beloved forest,” *The Arizona Republic* (Phoenix), 27 May 1978, B1.

⁵³⁸ Thomas H. Kearney and Robert H. Peebles, *Arizona Flora* (Berkeley: University of California Press, 1960).

⁵³⁹ McLaughlin, “Additions to the Flora of the Pinaleño Mountains,” 6-7; Martin and Fletcher, “Vertical Zonation of Great Soil Groups on Mt. Graham.”

⁵⁴⁰ Edgar Alexander Mearns, *Mammals of the Mexican Boundary of the United States: A Descriptive Catalogue of the Species of Mammals Occurring in that Region; With a General Summary of the Natural History, and a List of Trees*, Part. 1, Bulletin 56, Smithsonian Institution, United States National Museum (Washington: Government Printing Office, 1907), 262, but also 276, 287.

⁵⁴¹ Bowers, “Mount Graham,” 10. See the bibliographies regarding red squirrels maintained by the Mt. Graham Biology Program at UA (<http://ag.arizona.edu/research/redsquirrel/references.html>) and by the U.S. Forest Service (<http://www.fs.fed.us/database/feis/animals/mammal/tahu/references.html>).

⁵⁴² Gould, “The Golden Rule,” 43.

⁵⁴³ Joseph G. Hall, “A Field Study of the Kaibab Squirrel in Grand Canyon National Park,” *Wildlife Monographs*, vol. 75 (Jan 1981): 1-54. See also, Christian C. Young, *In the Absence of Predators: Conservation and Controversy on the Kaibab Plateau* (Lincoln: University of Nebraska Press, 2002); Anthony, “Scientist Describes Visit to Unknown Island in the Sky.” According to a newspaper from Prescott, Arizona, “The Kaibab Plateau in northern Arizona is the only place in the world where the

Mount Graham red squirrels are so-called “tree squirrels” that collect pine seeds and store them in their middens (caches), which they protect.⁵⁴⁴ Similar to “middens” left by humans that contain a potential gold mine for archaeologists, squirrel middens contain food and can tell biologists a great deal about the health of a population.⁵⁴⁵ Since red squirrels are known to avoid logged areas, one of the first threats to Mount Graham was also one of the first impediments to the long term well-being of the Mount Graham red squirrel, a rare species of which there is only one population in the world. As Joe T. Marshall, who conducted research on Mount Graham sporadically over the course of 40 years, noted, bird life on Mount Graham, which was examined by Henshaw, Monson, and Marshall, was also impacted by the “heavy logging.”⁵⁴⁶ Although it is difficult to tell the extent of the impact, this special Sky Island mountain and the animal, plant, and supernaturalists that live there were already threatened by the military, lumber companies, and tourism by the end of the nineteenth century.

Kaibab squirrel lives in the wild. ... Dr. Joseph [G.] Hall, who conducted the evaluation on the squirrel and its habitat, stated that the Kaibab squirrel is, in a local way, as significant a species as the finches Charles Darwin studied in the Galapagos Islands. Like the finches of the Galapagos, natural geographic boundaries including the Grand Canyon have restricted the Kaibab squirrel's movement and allowed it to evolve into the species seen today.” See “Unique Squirrel Species Gets Special Honor,” *The Daily Courier* (Prescott, AZ), 20 Jan 2009.

Regarding the “Chiricahua fox squirrel,” see John L. Koprowski, “The Ecology of the Chiricahua Fox Squirrel: Trapped on a Sky Island,” extended abstract, First Conference on Research and Resource Management in Southern Arizona National Park, 1998; U.S.D.A. Forest Service, Coronado National Forest, “Report on Chiricahua Wild Area” (Sep 1940), 2; AGFD, “*Sciurus nayaritensis chiricahuae*,” www.azgfd.gov/w_c/edits/documents/Sciunach.di.pdf (Unpublished abstract compiled and edited by the Heritage Data Management System, AGFD, Phoenix, 9 May 2003): 1-5; John L. Koprowski, Research Project: Conservation and Behavioral Ecology of the Rare Chiricahua Fox Squirrel, University of Arizona, 1993-present; U.S.D.A. Forest Service, “Coronado National Forest,” 14.

⁵⁴⁴ See Michael A. Steele, “*Tamiasciurus hudsonicus*,” *Mammalian Species*, vol. 586, American Society of Mammalogists (1 Jun 1998): 1-9; Melissa J. Merrick, Sadie R. Bertelsen, John L. Koprowski, “Characteristics of Mount Graham Red Squirrel Nest Sites in a Mixed Conifer Forest,” *The Journal of Wildlife Management*, vol. 71, no. 6 (2007): 1958-1963; Smith and Mannan, “Distinguishing Characteristics of Mount Graham Red Squirrels.” For a good description and bibliography of the Mount Graham red squirrel, see AGFD website, “*Tamiasciurus hudsonicus grahamensis*, Mount Graham red squirrel,” http://www.gf.state.az.us/w_c/nongameandendangeredwildlifeprogram/mammals.shtml, revised 16 May 2003.

⁵⁴⁵ Christine Carrie Fien, “Precious Pieces of the Past,” *City* (Rochester, NY), vol. 38, no. 43, 8-14 Jul 2009, 8-10.

⁵⁴⁶ Marshall, “Birds of Coniferous Forest on Mount Graham, Arizona”: 719; G. Monson, “Notes on Birds from Graham County, Arizona,” *Condor*, vol. 39 (1937): 254-255; Marshall, *Birds of Pine-Oak Woodland in Southern Arizona and Adjacent Mexico*. See also, A. Phillips, J. Marshall, and G. Monson, *The Birds of Arizona* (Tucson: University of Arizona Press, 1964); G. Monson and A. R. Phillips, *Annotated Checklist of the Birds in Arizona* (Tucson: University of Arizona Press, 1981).



Mount Graham red squirrel.⁵⁴⁷

In 1894, Joel Asaph Allen, curator of the American Museum of Natural History, collected three adult Mount Graham red squirrels, which he catalogued as *Sciurus hudsonicus grahamensis*, described as a new subspecies unique to the Pinaleno Mountains. When comparing these squirrels to other specimens collected in the San Francisco and White Mountains, he stated that the Mount Graham red squirrels had a dull, brownish yellow tail coloring which was “a conspicuous feature.” Noted Allen, “*S. h. grahamensis* ... seems to well warrant recognition, especially when considered in relation to its fairly isolated habitat.”⁵⁴⁸ As Allen put it, Mount Graham “appears to be a

⁵⁴⁷ Mount Graham Coalition, “Mt. Graham—a vulnerable old-growth summit boreal forest,” cover photograph.

⁵⁴⁸ J. A. Allen, “Descriptions of Five New North American Mammals,” *Bulletin of the American Museum of Natural History*, vol. 6 (New York: American Museum of Natural History, 1894), 350. Emphasis in original. For early references to the Mount Graham red squirrel, see J. A. Allen, “On the Collection of Mammals from Arizona and Mexico, Made by Mr. W. W. Price, with Field Notes from the Collector,” *Bulletin of the American Museum of Natural History*, vol. 7 (New York: American Museum of Natural History, 1895): 244; J. A. Allen, *Bulletin of the American Museum of Natural History*, vol. 10 (New York: American Museum of Natural History, 22 Jul 1898): 350; Daniel Giraud Elliot, “A Synopsis of the Mammals of North America and the Adjacent Seas,” *Field Columbian Museum Zoological Series*, vol. 2, Publication 45 (Chicago: Field Columbian Museum, 1901), 67; Gerrit Smith Miller and James Abram Garfield Rehn, “Systematic Results of the Study of North American Land Mammals to the Close of 1900,” *Proceedings of the Boston Society of Natural History*, vol. 30, no. 1 (Boston: Boston Society of Natural History, 1902), 35; Mearns, *Mammals of the Mexican Boundary of the United States*, 261-262;

continuation of the Chiricahua range, though geologically it is different, being formed almost entirely of granite.”⁵⁴⁹ Before the end of the nineteenth century, Allen and other scientists were already taking note of Mount Graham’s unique species, as well as the mountain’s ecological and geological distinctiveness.

A number of events have threatened the population of Mount Graham red squirrels and its critical habitat. “From the 1880s through the 1960s, natural events and human activities,” stated economists Thomas C. Rhodes and Paul N. Wilson, “interacted with the MGRS [Mount Graham red squirrel] and its habitat: fire, logging, road and cabin construction, hunting, and the introduction of the Abert squirrel, a non-indigenous competitive species.”⁵⁵⁰ Abert Squirrels (*Sciurus aberti*)—“tassel-eared squirrels”—were introduced to Mount Graham in the 1941 and 1943 by the Arizona Game and Fish Department (AGFD).⁵⁵¹ AGFD officials thought that there would be a demand for hunting squirrels, but this did not pan out since “hunters avoided shooting at squirrels in order not to disturb the more prized game, the turkey.”⁵⁵² The red squirrels apparently spend a great amount of time defending their middens against Aberts Squirrels who try to steal their food.⁵⁵³ According to the AGFD, “Donald Hoffmeister believes that the introduction of Abert Squirrels has played a significant role in their population decline

Keith R. Kelson, “Speciation in Rodents of the Colorado River Drainage,” *University of Utah Biological Series*, vol. 11, no. 3 (Salt Lake City: University of Utah, 1951): 17.

⁵⁴⁹ Allen, “On a Collection of Mammals from Arizona and Mexico,” 199.

⁵⁵⁰ Thomas C. Rhodes and Paul N. Wilson, “Sky Islands, Squirrels, and Scopes: The Political Economy of an Environmental Conflict,” *Land Economics*, vol. 71, no. 1 (Feb 1995), 106. Some cabin owners, such as the well-known Weech family, have held private property on Mount Graham since the nineteenth century. See Scarpinato, “Tense families wait as fire advances on Mt. Graham”; Weech and Weech, “A History of Mount Graham.”

⁵⁵¹ Russell Davis and David E. Brown, “Documentation of the Transplanting of Abert’s Squirrels,” *The Southwestern Naturalist*, vol. 33 (1988), 490-492.

⁵⁵² Hoffmeister, “Mammals of the Graham (Pinaleno) Mountains, Arizona,” 274.

⁵⁵³ David Hodges to author, personal communication, 15 Jul 2009. For more on the possible competition between red squirrels and Aberts squirrels, see John W. Ferner, “Habitat Relationships of *Tamiasciurus hudsonicus* and *Sciurus aberti* in the Rocky Mountains,” *The Southwestern Naturalist*, vol. 18 (1974): 470-473; Hall, “A Field Study of the Kaibab Squirrel in Grand Canyon National Park”: 1-54; Kelly A. Hutton, John L. Koprowski, Vicki L. Greer, Marit I. Alanen, Carol A. Schauffert, and Paul J. Young, “Use of Mixed-Conifer and Spruce-Fir Forests by an Introduced Population of Abert’s Squirrels (*Sciurus aberti*),” *The Southwestern Naturalist*, vol. 48, no. 2 (Jun 2003): 259; Rushton, Wood, Lurz, and Koprowski, “Modelling the Population Dynamics of the Mt. Graham Red Squirrel”: 121.

(being out competed).”⁵⁵⁴ Indeed, as recent scholarship shows, nest site competition and the “overlap of microhabitat” between native and exotic tree squirrels is troublesome and could result in the eventual extinction of native species.⁵⁵⁵ Although many biologists believe that they are in competition with Mount Graham red squirrel, according to Warshall, “There is zero evidence for competitive exclusion on Mt. Graham or anywhere. There is some overlap in the Doug[las] Fir forest but all indications are that the Mt. Graham Red Squirrel wins in these contests. This is the astronomer’s diversionary tactic to keep focus away from habitat loss and setbacks to recovery.”⁵⁵⁶



**“Mt. Graham-El. 10,720 Ft.
Near Safford, Arizona El. 2,906. 6-2-49.”⁵⁵⁷**

During the beginnings of the reservation period for Western Apaches, timber cutting on Mount Graham began in earnest. As the first chief of the U.S. Division of

⁵⁵⁴ AGFD website, “*Tamiasciurus hudsonicus grahamensis*, Mount Graham red squirrel,” http://www.gf.state.az.us/w_c/nongameandendangeredwildlifeprogram/mammals.shtml, 3; AGFD, Mammal Diversity Review notes, 1996.

⁵⁵⁵ Andrew J. Edelman, John L. Koprowski, and Sadie R. Bertelsen, “Potential for Nest Site Competition Between Native and Exotic Tree Squirrels,” *Journal of Mammalogy*, vol. 90, issue 1 (Feb 2009): 167-174; Andrew J. Edelman and John L. Koprowski, “Selection of Drey Sites by Abert’s Squirrels in an Introduced Population,” *Journal of Mammalogy*, vol. 86, issue 6 (Dec 2005): 1220-1226. See also, David E. Brown, “Arizona’s Tree Squirrels” (Phoenix: AGFD, 1984); Davis and Brown, “Documentation of the Transplanting of Abert’s Squirrels”; Hutton, Koprowski, Greer, Alanen, Schauffert, and Young, “Use of Mixed-Conifer and Spruce-Fir Forests by an Introduced Population of Abert’s Squirrels (*Sciurus aberti*): 257-260.

⁵⁵⁶ Mount Graham Coalition, “Rebuttal to U of V Lies About the Mt. Graham Red Squirrel,” <http://pinaleno.org/squirrel-lies/>

⁵⁵⁷ “Mt. Graham—El. 10,720 Ft. Near Safford, Arizona El. 2,906 Ft. 6-2-49,” postcard.

Forestry, Franklin B. Hough, put it in 1878, after Mount Graham was outside reservation boundaries, “The forest history of our most valuable woodlands would be a record of the doings of timber-thieves.”⁵⁵⁸ The mountain felt its fair share of pain in this regard. At one location in the early years of the twentieth century sat a mill owned by the Moody and Welker families from the Gila Valley. A 9-mile long flume linked the mill with the valley below. In 1916, near one section of the flume, sat the largest cottonwood tree in Arizona, whose main trunk was 10 feet in diameter. In the first quarter century, logs were pulled along a chute using horses. According to L. O. Martini, whose father helped to operate the flume, “Later a steam engine, known as a Donkey was brought in and they were pulled by a cable.” The Wholley Lumber Company became involved with the operations in the 1920s. In 1924, concrete footings were poured to create the Mount Graham Aerial Tramway to take lumber off of the mountain. The tramway closed within one year, but the long-term effects of logging on Mount Graham was felt by the Mount Graham red squirrel.⁵⁵⁹

In fact, habitat loss and degradation continued throughout the twentieth century due to logging, road construction, and the creation of access roads; fire; a decades-long drought (especially since 1992); and the introduction of non-native species had collectively had a negative impact on the health and survival of the Mount Graham red squirrel by the 1980s.⁵⁶⁰ Diminished resources and the introduction of new competitor

⁵⁵⁸ Quoted in Jacoby, *Crimes Against Nature*, vii.

⁵⁵⁹ L. O. Martini, “A Partial History of the Gila Lumber and Milling Company,” www.tinaja.com/glib/tramhist.pdf.

⁵⁶⁰ John L. Koprowski, Marit I. Alanen, and Ann M. Lynch, “Nowhere to Run and Nowhere to Hide: Response of Endemic Mt. Graham Red Squirrels to Catastrophic Forest Damage,” *Biological Conservation*, vol. 126 (2005): 491-498; John L. Koprowski, “Management and Conservation of Tree Squirrels: The Importance of Endemism, Species Richness, and Forest Condition,” in *Proceedings: Connecting Mountain Islands and Desert Seas: Biodiversity and Management of the Madrean Archipelago II*, 11-15 May 2004, Tucson, AZ, (RMRS-P-36), 245-250; John L. Koprowski, Katherine M. Leonard, Claire A. Zugmeyer, and Julia L. Jolly, “Direct Effects of Fire on Endangered Mount Graham Red Squirrel,” *The Southwest Naturalist*, vol. 51, no. 1 (2006): 59-63; Pyne, “The Wildland/Science Interface,” 3. Regarding the effects of logging on numerous species of wildlife that utilize old-growth forests within their range, see Jack Ward Thomas, Leonard F. Ruggiero, R. William Mannan, John W. Shoen, and Richard A. Lancia, “Management and Conservation of Old-Growth Forests in the United States,” *Wildlife Society Bulletin*, vol. 16, no. 3 (Autumn 1988): 252-262. About the health of Mount Graham, see the late 2009 articles in the *Arizona Daily Star* (Tucson): Beal, “UA-run

species have not helped the species. Blowdown as a result of storms; recent fires; and infestations of geometrid moth (*Nepytia janetae*), spruce beetle (*Dendroctonus rufipennis*), Western balsam bark beetle (*Drycoetes confusus*), and spruce aphid (*Elatobium abietinum*), have resulted in additional habitat loss that also pose a threat to the long-term viability of the squirrel.⁵⁶¹ As biologists recently pointed out, “Forest areas with greater tree mortality would likely not represent habitat, threatening the persistence of an isolated population. Although conservation efforts can protect remaining habitat, disturbance events continually represent a threat. Habitat loss and predictions of increased disturbance due to climate change highlight the importance of documenting response to disturbance.”⁵⁶² It is difficult to know the impacts on the squirrel of other activities, such as the rearing of Angora Goats on Cluff Brother’s ranch, dairy farming, or cattle grazing in the Mount Graham National Forest during the first decade of the twentieth century.⁵⁶³ But the Mount Graham red squirrel has experienced a number of

observatory harms Pinaleños’ forest, enviros and Forest Service say”; “Mt. Graham red squirrel still at risk,” editorial; Beal, “Undoing damage on Mt. Graham.”

⁵⁶¹ The Mount Graham Red Squirrel Monitoring Program, University of Arizona, “Insect Damage,” “Fires,” “Resource Availability,” and “Weather,” <http://ag.arizona.edu/research/redskquirrel>; Coronado National Forest, “Summary,” in “Draft Environmental Impact Statement,” <http://www.fs.fed.us/r3/coronado/perp/perp-deis.shtml>, 2009, ii. Regarding insect outbreaks in the Southwest, see U.S.D.A. Forest Service, “Forest Health,” <http://www.fs.fed.us/r3/resources/health>; U.S.D.A. Forest Service, “Forest Insect and Disease Conditions in the Southwestern Region, 2007,” Report: PR-R3-16-3 (May 2008), 1-38. See also, Pyne, “The Wildland/Science Interface,” 3, 4; Beal, “Undoing damage on Mt. Graham”; Mitch Tobin, “Mt. Graham in Danger: Observatory sits atop tinderbox: Wildfire threat adds new angle to old debate,” *Arizona Daily Star* (Tucson), 21 Jun 2002; David Wichner, “Fire prevention blame game is complex,” *Arizona Daily Star* (Tucson), 25 Jun 2002; Tom Jackson King, “Hull back Graham logging: Supports cutting of trees killed by fire, insects,” *Eastern Arizona Courier* (Safford), vol. 114, no. 32, 7 Aug 2002, 1A, 16A; Jim Erickson, “Mount Graham Tragedy: A Forest No More,” *Arizona Daily Star* (Tucson), 1 Oct 2000.

⁵⁶² Claire A. Zugmeyer and John L. Koprowski, “Habitat Selection is Unaltered After Severe Insect Infestation: Concerns for Forest-Dependent Species,” *Journal of Mammalogy*, vol. 90, issue 1 (Feb 2009): 175-182.

⁵⁶³ See photo: American Forestry Association, “United States Forest Service: The Month in Government Forest Work, Arizona’s Mountain Forests,” *Forestry and Irrigation*, vol. 14, no. 8 (Aug 1908), 496. See also, Kellogg, “Forest Conditions in Southern Arizona”: 504; Harold E. Herbert, *Graham County, Arizona* (Charleston, SC: Arcadia Publishing, 2008), 39; Claude McBride, “How I Found Oak Flat by Peter H. McBride” (1960) and “Mt. Graham Life of Peter H. McBride,” http://www.surnames.com/documented_websites/arminta/oak_flat.htm; Larry S. Allen, “Livestock and the Coronado National Forest,” *Rangelands*, vol. 11, no. 1 (Feb 1989), 14; Diana Hadley, “Grazing the Southwest Borderlands: The Peloncillo-Animas District of the Coronado National Forest in Arizona and New Mexico, 1906-1996,” in Christopher J. Huggard and Arthur R. Gómez, eds., *Forests Under Fire: A Century of Ecosystem Mismanagement in the Southwest* (Tucson: University of Arizona Press, 2001).

incursions into its habits during the twentieth century that have nearly made it go the way of the Dodo and Passenger Pigeon. As biogeographer Paul S. Martin noted before the construction of astrophysical complexes on the mountain during the late 1980s, “We could be pushing the edge of extinction.”⁵⁶⁴ Continued Martin, “There’s no place else in North America that would allow [biologists William A. Niering and Robert H. Whittaker] to do that [analysis],” a reference to a 1962 study that surveyed species diversity from the Sonoran Desert to subalpine forests in southern Arizona.⁵⁶⁵ Mount Graham is the only place in the United States to conduct research on an endangered species, living within a small area (a few hundred acres), and existing on a small, imperiled island.

But the Mount Graham red squirrel is not the only species that evolved separately in the Pinaleños. In fact, at least 17 additional species, including several species of mollusk, are endemic (i.e., found nowhere else in the world) to Mount Graham.⁵⁶⁶ In addition to the Mount Graham red squirrel, the Pinaleños are home to two additional endemic mammals, the White-bellied long-tailed vole⁵⁶⁷ and Pinaleño pocket gopher,⁵⁶⁸

Stewart Edward White (1873-1946), who travelled throughout the Southwest, mentioned Mount Graham during cattle drives. Stewart Edward White, *Arizona Nights* (New York: Grosset & Dunlap, The McClure Company, and The Outing Publishing Company, 1907), 96, 97, 104. At one point, White brags about scalping Apaches to collect Mexican bounties, 162-163.

⁵⁶⁴ Pennisi, “Biology versus Astronomy,” 13.

⁵⁶⁵ Pennisi, “Biology versus Astronomy,” 10. See R. H. Whittaker and W. A. Niering, “Vegetation of the Santa Catalina Mountains, Arizona: A Gradient Analysis of the South Slope,” *Ecology*, 46 (1965): 429-451. See also, Straney, “Mount Graham International Observatory,” 2.

⁵⁶⁶ See Panza, “The Impaling of Apache Holy Ground,” 5; AGFD website, http://www.gf.state.az.us/w_c/nongameandendangeredwildlifeprogram/mammals.shtml; Mount Graham Coalition website, “The Many Unique Species on Mt. Graham’s Summit,” <http://www.mountgraham.org/WhitePapers/species.html>.

⁵⁶⁷ For early references to *Microtus longicaudus leucophaeus*, see J. A. Allen, “Descriptions of Ten New North American Mammals, and Remarks on Others,” *Bulletin of the American Museum of Natural History*, vol. 6 (7 Nov 1894): 320-321; J. A. Allen, “On the Collection of Mammals from Arizona and Mexico,” 219; V. Bailey, “Revision of the American Voles of the Genus *Microtus*,” *North American Fauna*, no. 17 (6 Jun 1900): 1-88, esp. 13, 53; Miller and Rehn, “Systematic Results of the Study of North American Land Mammals to the Close of 1900,” 123; Elliot, “A Synopsis of the Mammals of North America and the Adjacent Seas,” 192; Edward A. Goldman, “Notes on the Voles of the *Microtus Longicaudus* Group,” *Journal of Mammalogy*, vol. 19, no. 4 (14 Nov 1938): 491-492. For a good description and bibliography, see AGFD website, “*Microtus longicaudus leucophaeus*: White bellied long-tailed vole,” http://www.gf.state.az.us/w_c/nongameandendangeredwildlifeprogram/mammals.shtml, revised 2 May 2003.

⁵⁶⁸ For information regarding *Thomomys bottae grahamensis*, see Edward A. Goldman, “New Pocket Gophers from Arizona and Utah,” *Journal of the Washington Academy of Science*, vol. 21 (1931): 420;

as well as at least two mollusks,⁵⁶⁹ three plants,⁵⁷⁰ and ten insects,⁵⁷¹ including the Pinaleno Monkey Grasshopper, “the most geographically restricted and rarest of all eumastacid genera in North America.”⁵⁷² Given that any biological studies conducted

Cheri A. Jones and Colleen N. Baxter, “*Thomomys bottae*,” *Mammalian Species*, no. 742, American Society of Mammalogists (13 Jul 2004), 1-14.

⁵⁶⁹ For information regarding *Sonorella imitator*, see W. O. Gregg and Walter B. Miller, “Two New Species of Land Snails from the Pinaleno Mountains, Arizona,” *Bulletin of Southern California Academy of Sciences*, vol. 73, no. 3 (1974): 146-151; U.S. Fish and Wildlife Service, *Endangered Species Technical Bulletin*, vol. 13, nos. 9-10 (1988), 14; AGFD, “*Sonorella imitator*” (Unpublished abstract compiled and edited by the Heritage Data Management System, AGFD, Phoenix, 4 Dec 2003): 1-4. See AGFD website, “*Sonorella imitator*: Mimic Tallussnail,” http://www.azgfd.gov/w_c/nongameandendangeredwildlifeprogram/invertebrates.shtml.

For information regarding *Sonorella grahamensis*, see Henry A. Pilsbry and Jas. H. Ferriss, “Mollusca of the Southwestern States: IX, The Santa Catalina, Rincon, Tortillita and Galiuro Mountains. X, The Mountains of the Gila Headwaters,” *Proceedings of the Academy of Natural Sciences of Philadelphia*, vol. 70, no. 3 (Nov-Dec 1918): 311-312; Henry A. Pilsbry, *Land Mollusca of North America (North of Mexico)* (Philadelphia: Academy of Natural Sciences of Philadelphia, 1939), 292, 370; Gregg and Miller, “Two New Species of Land Snails from the Pinaleno Mountains”: 146-151; H. L. Fairbanks and R. L. Reeder, “Two New Species of *Sonorella* (Gastropoda: Pulmonata: Helminthoglyptidae) from the Pinaleno Mountains, Arizona,” *Proceedings of the Biological Society of Washington*, vol. 93, no. 2 (1980): 395-404; U.S. Fish and Wildlife Service, *Endangered Species Technical Bulletin*, 14; AGFD, “*Sonorella grahamensis*” (Unpublished abstract compiled and edited by the Heritage Data Management System, AGFD, Phoenix, 4 Dec 2003): 1. See AGFD website, “*Sonorella grahamensis*: Pinaleno Talussnail,” http://www.azgfd.gov/w_c/nongameandendangeredwildlifeprogram/invertebrates.shtml.

For information regarding *Oreohelix grahamensis*, see Gregg and Miller, “Two New Species of Land Snails from the Pinaleno Mountains”: 146-151; U.S. Fish and Wildlife Service, *Endangered Species Technical Bulletin*, 14; AGFD, “*Oreohelix grahamensis*” (Unpublished abstract compiled and edited by the Heritage Data Management System, AGFD, Phoenix, 3 Dec 2003): 1. See AGFD website, “*Oreohelix grahamensis*: Pinaleno Mountainsnail,” http://www.azgfd.gov/w_c/nongameandendangeredwildlifeprogram/invertebrates.shtml.

⁵⁷⁰ For information regarding *Erigeron heliographis* and *Potentilla albiflora*, see McLaughlin, “Additions to the Flora of the Pinaleno Mountains,” 7. For information regarding *Erysimum capitatum*, see Rothrock, “Catalogue of Plants Collected in Nevada, Utah, Colorado, New Mexico, and Arizona,” 65. McLaughlin also mentioned *Plummerra ambigens* as a species unique to Mount Graham. See McLaughlin, “Additions to the Flora of the Pinaleno Mountains,” 7.

⁵⁷¹ These insects include *Byrrus sp.*, *Trechus arizonae*, *Priognathus sp.*, *Diplotaxis saylora*, *Scaphinotus petersi grahami*, *Symphoromyia fulvipes*, *Tetraphleps sp.*, *Deracocoris sp.*, *Dichrooseytus sp.*, and *Eumorsea Pinaleno*. Edwin C. Van Dyke, a leading American coleopterist who discovered nearly half of the known species and subspecies of beetles on the Galápagos Islands, took note of the beetle *Scaphinotus petersi grahami* on Mount Graham in 1938. See George E. Ball, “The Taxonomy of the Subgenus *Scaphinotus* Dejean with Particular Reference to the Subspecies of *Scaphinotus petersi* Roeschke (Coleoptera: Carabidae: Cychrini),” *Transactions of the American Entomological Society* (1890-), vol. 92, no. 4 (Dec 1966), 712-714.

⁵⁷² AGFD, “*Eumorsea pinaleno*” (Unpublished abstract compiled and edited by the Heritage Data Management System, AGFD, Phoenix, Feb 2001): 1. Regarding *Eumorsea pinaleno*, see AGFD website, “*Eumorsea Pinaleno*: Pinaleno Monkey Grasshopper,” http://www.gf.state.az.us/w_c/edits/hdms_abstracts_invertebrates.shtml. See also, Morgan Hebard, “Studies in the Orthoptera of Arizona. Part I. New Genera, Species and Geographic Races,” *Transactions*

have been done quickly and not covered the entire mountain, and have never taken into account a botanical analysis, and given that new species are regularly found in the Southwest, it is likely that additional species could be found. Indeed, the biodiversity of the Southwest in general and of Mount Graham in particular is amazing.⁵⁷³

Executive Order Forest Reservation

On March 3, 1891, Congress gave power to the President by proclamation to set aside public lands as national forest reserves.⁵⁷⁴ A few years prior to this legislation, Apaches had been subdued, removed, or placed on executive order reservations—another legislative power that had been given to the President on March 3, 1871, when the U.S. discontinued its customary treaty-making practices.⁵⁷⁵ By the turn of the twentieth century, the population of the state of Arizona was increasing rapidly following decades of white-Indian conflict and wars. The 1900 census of the Arizona Territory showed Graham County (formed in 1881), the only county by that point not named for an Indian or Indian tribe in Arizona, had the third largest population. In fact, “The population of Arizona in 1900 [was] more than twelve times as large as the population given for 1870.” The population of Graham County nearly tripled from 1890 to 1900.⁵⁷⁶ By the early years of the twentieth century, the U.S. had created several Indian reservations, national parks,

of the American Entomological Society (1890-), vol. 61, no. 2 (Jun 1935), 121 (“*Eumosea balli*”); James A. G. Rehn and Harold J. Grant, Jr., “A Review of the Genera *Psychomastax* and *Eumorsea* (Orthoptera; Acridoidea; Eumastacidae),” *Transactions of the American Entomological Society (1890-)*, vol. 84, no. 3/4 (Sep-Dec 1958), 297, 299 (“new species”), 300 (“new species”), 302. For more on the effects of the Pleistocene on insects, start with, Henry H. Howden, “Effects of the Pleistocene on North American Insects,” *Annual Review of Entomology*, vol. 14 (Jan 1969): 39-56.

⁵⁷³ Associated Press, “UA biologist discovers new moth, names for wife,” *The Arizona Republic* (Phoenix), 14 Jun 2009, <http://www.azcentral.com/offbeat/articles/2009/06/14/20090614newmoth.html>.

⁵⁷⁴ U.S. Congress, Federal Statute, 26 Stat., 1095, 3 Mar 1891; U.S.D.A., *The National Forest Manual. General Laws, Parts of Laws, Decisions, and Opinions Applicable to the Creation, Administration, and Protection of National Forests* (Washington: Government Printing Office, 1913), 5; U.S.D.A. Forest Service, *Establishment and Modification of National Forest Boundaries and National Grasslands: A Chronological Record: 1891-1996* (Washington: Nov 1997), i.

⁵⁷⁵ U.S. Congress, “Indian Appropriations Act,” Federal Statute, 16 Stat. 544, 566, 3 Mar 1871; Elmer F. Bennett, U.S.D.I., *Federal Indian Law* (Clark, NJ: The Lawbook Exchange, Ltd., 2008), 114, 138, 211, 236, 691.

⁵⁷⁶ “Report of the Governor of Arizona,” in *Annual Reports of the Department of the Interior for the Fiscal Year Ended June 30, 1903, Miscellaneous Reports*, Part 1 (Washington: Government Printing Office, 1903), 109.

and forest reserves, and had changed the collective outlook of the U.S. regarding nature.⁵⁷⁷

In those early years, before Arizona achieved statehood in 1912, various interests were using the Pinaleno Mountains for scientific exploration, recreation, and lumber. In 1901, Gifford Pinchot, then head of the Bureau of Forestry and President of the National Conservation Association, made Albert Potter, an Associate Forester for the Secretary of Agriculture, a part of his team. Potter helped create forest reserves in Arizona in early 1902 and “recommended the boundary lines for the Santa Rita, Chiricahua, and Mount Graham forest reserves.”⁵⁷⁸ The Mount Graham Forest Reserve was created by Executive Order of July 22, 1902.⁵⁷⁹ The executive order policies that plagued and controlled Apaches were now being used to subdue and control the mountain. In yet another way, the history of the occupation of Mount Graham is seamlessly intertwined with the Apaches and the natural history of the mountain.

Two days after the death in 1902 of John Wesley Powell, soldier, geologist, explorer, and director of the U.S. Bureau of Ethnology, the journal *Science* noted that seven forest reserves were established by “presidential proclamation.” These included reserves in Montana and New Mexico and “three new reserves in Arizona [of which] the Mount Graham Forest Reserve, 118,600 acres in extent, located in Graham County,” was the smallest.⁵⁸⁰ The Alexandria Archipelago Forest Reserve in Alaska included 4,506,240 and was the largest. The magazine noted at the time that, “In square miles the area of the

⁵⁷⁷ For the importance of executive orders during President Theodore Roosevelt’s terms in office, see Douglas Brinkley, *Wilderness Warrior: Theodore Roosevelt and the Crusade for America* (New York: HarperCollins, 2009). Roosevelt was able to use executive privilege to create national forests with ease, particularly in territories that had not achieved statehood.

⁵⁷⁸ American Forestry Association, “Albert F. Potter,” *American Forestry*, vol. 16, no. 2 (Feb 1910): 107, and 96.

⁵⁷⁹ Proc. 31, 32 Stat. 2017; U.S.D.A., *Establishment and Modification of National Forest Boundaries and National Grasslands*, 4. See also, Pyne, “The Wildland/Science Interface,” 3.

⁵⁸⁰ American Association for the Advancement of Science, *Science*, vol. XVI, no. 404 (26 Sep 1902): 520. Thomas Hampton was the first supervisor of the Mount Graham Forest Reserve, headquartered in Thatcher, Arizona. See American Forestry Association, “News and Notes,” *Forestry and Irrigation*, vol. 11, no. 5 (May 1905): 196; “Report of the Governor of Arizona,” 156. J. W. Farmer was Forest Supervisor of the Mount Graham Forest Reserve next, but Harold A. E. Marshall was supervisor of Mount Graham Forest Reserve in Farmer’s absence in 1906. See American Forestry Association, “United States Forest Service: The Month in Government Forest Work,” *Forestry and Irrigation*, vol. 12, no. 12 (Dec 1906), 568.

reserves is 91,954, or almost twice the size of Pennsylvania.”⁵⁸¹ The Pinaleño Mountains were changing again, as various interests, especially the U.S. government, local municipalities, Mormon farmers and ranchers, and companies that hoped to make money off the forested peaks, exerted their will over this place.

Royal S. Kellogg, of the Bureau of Forestry, wrote reports on Mount Graham and the forests of Southern Arizona in 1902, soon after the establishment of the Mount Graham Forest Reserve. Kellogg called for road construction in the Pinaleño Mountains. “Much of the available timber has been cut in the Graham Mountains, but more can be reached by road-building,” stated Kellogg. As Kellogg noted, “Repeated fires have swept over the Grahams . . . , but they are less frequent now than in the days of Apache warfare, though still much too common.”⁵⁸² At the conclusion of his report, Kellogg wrote, “The recent establishment of forest reserves . . . is an excellent move. While a conservative management of these reserves will not permit enough timber cutting to fully supply local needs, the timber that can be taken out will keep down to a reasonable figure the price of that which is brought in from other sources.”⁵⁸³ From the outset, the concern was access to forested mountains, not the protection of little-known species or species diversity.

Mount Graham’s forested peaks were always the most important commodity to the local governments and related interests. “These timbered mountains [Pinaleños] are blessings to the people of the territory in more ways than one. Streams in which the flow is regulated by the forests run down into the desert where every drop of water is used for irrigation. The forests also supply the people of the region with material for building their houses, for fencing, and with timber,” according to the American Forestry Association.⁵⁸⁴ “The Government has sold to the Mt. Graham Lumber Company, the timber on the area which is estimated to yield 950,000 board feet, and the company is now cutting and

⁵⁸¹ American Association for the Advancement of Science, *Science*: 520.

⁵⁸² Kellogg, “Forest Conditions in Southern Arizona”: 505. Fire was still a problem in the 1940s; it is quite possibly more so today. “Fire is the forest’s greatest enemy,” according to the Coronado National Forest in the 1940s. U.S.D.A. Forest Service, “Coronado National Forest,” 17. See also Pyne, “The Wildland/Science Interface,” 5.

⁵⁸³ Kellogg, “Forest Conditions in Southern Arizona”: 505. Portions of Kellogg’s report are in “Report of the Governor of Arizona,” 156.

⁵⁸⁴ American Forestry Association, “United States Forest Service: The Month in Government Forest Work, Arizona’s Mountain Forests,” *Forestry and Irrigation*, vol. 14, no. 8 (Aug 1908), 454.

sawing it and supplying the agricultural community in the valley of the Gila River with lumber, and the mines of the Globe mining district with timbers.” The American Forestry Association noted that there was “plenty of water on Mt. Graham with which to operate” the log flume down Ash Creek to the base of the mountain.⁵⁸⁵ Telephone work was also conducted on Mount Graham National Forest in 1907—“twenty-one miles of line connecting Pima with several points in the forest.”⁵⁸⁶ By 1908, the mountain was already bearing witness to several new disturbances.

The administration of conservationist and developmentalist President Theodore Roosevelt sped up the process of habitat change on Mount Graham. A Congressional Act of June 11, 1906, set aside lands within national forests for agriculture and homesteaders.⁵⁸⁷ Land was added to Mount Graham in 1906.⁵⁸⁸ Forest reserves became national forests by Congressional act in 1907.⁵⁸⁹ The Mount Graham Reserve became the Mount Graham National Forest and, combined with the Apache, Tonto, and Pinal Forests, created the Crook National Forest, named for Indian fighter General George Crook, on July 1, 1908.⁵⁹⁰ During a large consolidation of forests in Arizona and New Mexico, the Coronado National Forest was established one day later.⁵⁹¹ The forest was named for Spanish colonizer Francisco Vasquez de Coronado, a man that anthropologist Alfonso Ortiz once called a “savage” and stated was responsible for “a destructive rampage through Pueblo Country” during the 1500s.⁵⁹² For the next 45 years, land was added and deleted to both Crook and Coronado, as various interests sought portions of the forests for “ex-service men of War with Germany” (homesteaders), minerals

⁵⁸⁵ American Forestry Association, “United States Forest Service,” *Forestry and Irrigation* (Aug 1908), 454.

⁵⁸⁶ American Forestry Association, “United States Forest Service: The Month in Government Forest Work,” *Forestry and Irrigation*, vol. 13, no. 4 (Apr 1907), 211.

⁵⁸⁷ 34 Stat., 233; U.S.D.A., *The National Forest Manual*, 30-32.

⁵⁸⁸ T. Roosevelt, Executive Order 515, 6 Oct 1906.

⁵⁸⁹ 34 Stat. 1256 (4 Mar 1907); U.S.D.A., *Establishment and Modification of National Forest Boundaries and National Grasslands*, i.

⁵⁹⁰ Proc. 816, 35 Stat. 2194; U.S.D.A., *Establishment and Modification of National Forest Boundaries and National Grasslands*, 18.

⁵⁹¹ EO 908 (2 Jul 1908); U.S.D.A., *Establishment and Modification of National Forest Boundaries and National Grasslands*, 20.

⁵⁹² See Diane Reyna, dir., *Surviving Columbus: The Story of the Pueblo People*, PBS/The Institute of American Indian Arts, 1992.

exploration, and water, for example. During this time, some lands were returned to the White Mountain Apache Indian Reservation. On October 23, 1953, the Crook National Forest was dissolved and Mount Graham Forest was added to the Coronado National Forest.⁵⁹³ The ever-evolving history of Mount Graham bears witness to changing attitudes toward the environment, varying policies regarding management and use of the national forest lands, and legislative initiatives that affected both Indians and these natural areas.⁵⁹⁴

In 1967, Charles Ames, Assistant Forest Supervisor for the Coronado National Forest wrote a history of the U.S. Forest Service. The Division of Forestry was given “statutory rank” in 1886, the same year Geronimo was captured. Ames noted that the Forest Service “is the only Government Bureau led by a ‘Chief.’” However, what is most significant, given what occurred nearly a century later in U.S. Congress, is that the act passed by Congress in 1891 “empower[ed] the President to establish forest reserves from the public domain. The act was a rider on the bill abolishing the old Timber and Stone Act.”⁵⁹⁵ Another rider attached to an Agricultural Appropriations Bill in 1907 by lobbyists “opposed to the national forest system ... [and] the conservation movement ... prohibited any further additions of forest reserves by Presidential proclamation.” Ames described the irony: “Thus the legislation empowering the President to set aside lands of the public domain originated in a rider to a bill and was removed in the same manner.”⁵⁹⁶ Congressional riders would continue to have an impact on decision making regarding Mount Graham at various points throughout the late twentieth century.

But it was the changing attitudes toward the environment once more during the 1950s and 1960s that shaped governmental policies and the use of national forests.⁵⁹⁷ The 1963 Mobil Travel Guide highlighted the “Pinaleno Mountains Recreation Area with

⁵⁹³ PLO [Public Land Order] 924, 18 FR [Federal Register Notice] 6823, 7356 (23 Oct 1953). See also, PLO 943, 19 FR 1119 (22 Feb 1954); U.S.D.A. Forest Service, Coronado National Forest, “Heritage,” <http://www.fs.fed.us/r3/coronado/forest/heritage/heritage.shtml>; Eighth National Watershed Conference, “Field Trip,” 7.

⁵⁹⁴ See Brinkley, *Wilderness Warrior*.

⁵⁹⁵ Ames, “A History of the Forest Service,” 118.

⁵⁹⁶ Ames, “A History of the Forest Service,” 120.

⁵⁹⁷ See Roderick Frazier Nash, *Wilderness and the American Mind*, 4th ed. (New Haven: Yale University Press, 2001).

Mount Graham . . . , Riggs Flat Lake,” as a destination point for travelers.⁵⁹⁸ At approximately the same time, Coronado National Forest pamphlets took note of “the dense mature commercial timber stands on Mt. Graham.”⁵⁹⁹ The disparate interests of recreation, logging, and other activities on Mount Graham and elsewhere nationally changed the ways in which people regarded national forests. By the 1960s, shifting ideas melded with a number of forthcoming environmental and historic sites legislation that helped to change the policies that affected the species on Mount Graham, as well as the mountain itself.

Significant legislation from the 1960s and 1970s would change the landscape of Mount Graham and shaped the decisions that were made decades later with regards to this place.⁶⁰⁰ The Nixon administration’s political use of the burgeoning environmental movement played a role in much of this legislation, as well as laws designed to curb air, water, and pesticide pollution, among other environmental and human health problems.⁶⁰¹ In the management of national lands and heritage resources, the Forest Service was also directed by other federal laws and executive orders.⁶⁰² The cumulative effect of many of the environmental and cultural laws from the 1960s and 1970s were pushed aside by the

⁵⁹⁸ Mobil Travel Guide, “Coronado National Forest,” in *Arizona* (1963), photocopy, in *National Forests: Specific—Coronado National Forest, General*, U.S. Forest Service Headquarters History Collection (Mt. Graham/Coronado), Forest History Society, Durham, NC.

⁵⁹⁹ U.S.D.A. Forest Service, “The Coronado National Forest Works for You!,” n.p.

⁶⁰⁰ See Congressional legislation such as the The Multiple-Use Sustained Yield Act of 1960 (MUSYA) (16 U.S.C. [United States Code] Sec. 528-531 [1976]) that “was the first dictate that the USFS would be concerned with fish and wildlife in managing the National Forests.” Important environmental legislation included the Wilderness Act of 1964 (16 U.S.C. 1131-1136), the National Environmental Policy Act of 1969 (NEPA) (14 U.S.C. Sec. 4321, et seq. [1970]), Endangered Species Act of 1973 (ESA) (16 U.S.C. Sec. 668 [1967]), Forest and Rangelands Renewable Resources Planning Act of 1974 (RPA) (16 U.S.C. Sec. 1601 [1976]), and National Forest Management Act of 1976 (NFMA) (16 U.S.C. Sec. 1600 [1976]). See Thomas, Ruggiero, Mannan, Shoen, and Lancia, “Management and Conservation of Old-Growth Forests in the United States,” 256, 258; Douglas W. MacCleery, *National Forest System Land and Resource Management Planning*, Federal Register, vol. 47, no. 190 (1982): 43026-43052.

⁶⁰¹ See J. Brooks Flippen, *Nixon and the Environment* (Albuquerque: University of New Mexico Press, 2000); J. Brooks Flippen, *Conservative Conservationist: Russell E. Train and the Emergence of American Environmentalism* (Baton Rouge: Louisiana State University Press, 2006).

⁶⁰² See the Antiquities Act of 1906 (34 Stat. 225, 16 U.S.C. 431 et seq.) and the Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461 et seq.). Important legislation and executive orders from the 1960s and 1970s included the National Historic Preservation Act of 1966 as amended (NHPA), NEPA, President Nixon’s 1971 Executive Order 11593 (incorporated into 1976 amendments to NHPA), and the American Indian Religious Freedom Act of 1978 (AIRFA). See the National Historic Preservation Act (16 USC 470(b)).

late 1980s on Mount Graham in favor of “special interest politics.”⁶⁰³ Of particular importance in terms of Congressional actions, legal wrangling, and the overall struggle for Mount Graham during the late 1980s and early 1990s, however, were the National Environmental Protection Act and the Endangered Species Act.⁶⁰⁴

The Mount Graham Forest Reserve was created at the beginning of a number of changes to governmental policies and regulations regarding national forests: professional courses in forestry, the creation of the Bureau of Forestry (which became the Forest Service in 1905), alterations to grazing regulations, and the rapid establishment of forest reserves during the early decades of the twentieth century.⁶⁰⁵ In the early years of the Forest Service, a number of citizens and groups opposed the work of the Forest Service. “Opponents said that through the Secretary of Agriculture’s regulations it usurped the law, made light of functions of Congress and ignored the Constitutional rights of the people and the states,” according to Ames.⁶⁰⁶ Despite this opposition, by 1942, according to a Coronado publication, “Long-term management plans providing for the use and development of all the forest values have been adopted.”⁶⁰⁷ By the 1960s, Coronado officials began to encounter requests for astrophysical development in the forest, some of which have called into questions the Service’s practices regarding land management, its adherence to environmental and historic preservation laws, and its historic problems with “multiple use” policies, public grazing, and unethical timber cutting—all of which played out on Mount Graham.⁶⁰⁸

By the 1960s, astronomy quickly played a role in occupying through “special use” several of Arizona’s national forests. A key responsibility of forest officials was “checking and arranging special use permits,” according to Frederic Knipe, a district ranger with the Forest Service.⁶⁰⁹ A 1960s Coronado National Forest brochure stated,

⁶⁰³ Warshall, “The Biopolitics of the Mt. Graham Red Squirrel,” 977.

⁶⁰⁴ See Hirt, “Endangered Arizona Ecosystem Threatened by Telescope Development”; Warshall, “The Biopolitics of the Mt. Graham Red Squirrel.”

⁶⁰⁵ Ames, “A History of the Forest Service,” 118. See Brinkley, *Wilderness Warrior*.

⁶⁰⁶ Ames, “A History of the Forest Service,” 119.

⁶⁰⁷ U.S.D.A. Forest Service, “Coronado National Forest,” 1.

⁶⁰⁸ See Jacoby, *Crimes Against Nature*.

⁶⁰⁹ Ames, “A History of the Forest Service,” 134.

“Before a permit is granted, each application for a special use is carefully studied and determination made as to how it might affect other National Forest resources and uses. If the use applied for is detrimental to good land management practices, it is disapproved or modified to overcome the objection.”⁶¹⁰ By the mid-1960s, “The Coronado [had] 50 electronic installations under permit.”⁶¹¹ In 1965, the University of Arizona (UA) began operations of telescopes on Mount Bigelow in the Santa Catalina Mountains. In 1966, the Smithsonian Institution was granted special use of Mount Hopkins, a peak in the Santa Rita Mountains. When the U.S. Air Defense Command decommissioned its radar base on Mount Lemmon in the Santa Catalina Mountains in 1970, for example, UA negotiated with the Air Force and Forest Service to convert the location into the Mount Lemmon Infrared Observatory. All three of these peaks are located in the Coronado National Forest. UA astronomers already occupied Kitt Peak, a mountain that was formerly part of a national forest.⁶¹² The rising interest in and support for astrophysics in Arizona during the Cold War, as well as the response and support of the Forest Service, paved the way for the events of the 1980s on another forested peak within the Coronado National Forest.⁶¹³

“The Coronado National Forest is a group of ‘Islands in the Southeastern Arizona desert’ with resources working for you,” according to Clyde W. Doran, Forest Supervisor for the Coronado National Forest, in the introduction to a brochure from the mid-1960s titled, “The Coronado National Forest Works for You!” As Doran put it,

The Multiple Use-Standard Yield Act of 1960 directs that the natural resources of the National Forests shall be managed and utilized in the combination that best meets the needs of the American people. As part owner of the Coronado National Forest, you will be interested in knowing how we are managing its outdoor recreation, wood, wildlife and fish, range, and water resources.

As a corporation reports to its stockholders, I’m presenting a look at what’s happening on your National Forest ... how coordinated management of the

⁶¹⁰ U.S.D.A. Forest Service, “The Coronado National Forest Works for You!,” n.p.

⁶¹¹ U.S.D.A. Forest Service, “The Coronado National Forest Works for You!,” n.p.

⁶¹² Garick Utley/George Lewis, “‘Biopolitics’ at a Peak: Build Observatory or Protect the Red Squirrel?” NBC Today Show, 15 Apr 1990.

⁶¹³ Edward Stiles, “Telescope fight still raging: It’s called biggest ecology battle in Coronado Forest History,” *Tucson Citizen*, 26 Mar 1988.

various resources, each with the other, without impairment of the productivity of the land, works on the ground.

The Coronado National Forest is your National Forest. You are invited to visit it as much as possible. Please be careful with fire and be sure to leave a clean camp....

Ever increasing demands, interest, and needs of the booming Southwest and our growing Nation make our job of managing the National Forest more challenging. With increased demands will come increased conflicts of interest....⁶¹⁴

Doran's comments foreshadowed the events nearly two decades later when differing groups, having separate interests in the well-being, maintenance, and plan for the forest, particularly for the fate of the Mount Graham red squirrel living on the peaks of the Pinaleno Mountains, would involve themselves in a struggle for the direction of Coronado Forest's tallest peak, Mount Graham.

Endangered Species #050811

In 1956, biologist Hoffmeister noted, "The spruce squirrel or chickaree was not abundant anyplace in the Mountains.... Nearly all of the persons we talked with were unaware of the presence of the spruce squirrel in the Grahams, so uncommon are these squirrels now."⁶¹⁵ In 1968, after five years without "evidence of spruce squirrel, even in the highest, spruce-fir forests that appear totally suitable for the species," the Mount Graham red squirrel was erroneously declared extinct.⁶¹⁶ However, Tom Waddell, who was working for AGFD, "rediscovered" this "Lazarus species" in 1972 in the High Peak Cienega (wetlands) area, above 10,000 feet.⁶¹⁷ David Brown, a biologist with AGFD,

⁶¹⁴ U.S.D.A. Forest Service, "The Coronado National Forest Works for You!," n.p. Regarding "multiple use," see Feldman, "Othering Knowledge and Unknowing Law," 5. See also, George V. Coyne, "An Open Letter Particularly Addressed to the Non-Indian Members of the Apache Survival Coalition," 30 Apr 1992, 3, in which this Jesuit astronomer and supporter of astrophysical development discusses Mount Graham as a place where "multiple use of the facilities has been traditional."

⁶¹⁵ Hoffmeister, "Mammals of the Graham (Pinaleno) Mountains, Arizona," 273-274.

⁶¹⁶ W. L. Minckley, "Possible Extirpation of the Spruce Squirrel from the Pinaleno (Graham) Mountains, South-Central Arizona," *Journal of the Arizona Academy of Science*, vol. 5, no. 2 (Oct 1968): 10.

⁶¹⁷ Tom Waddell to author, email, 21 Jan 2008; Tom Waddell to author, email, 5 Aug 2009; Wallace, "The Mt. Graham Red Squirrel," 10; The Mount Graham Red Squirrel Monitoring Program, University of Arizona, "Mount Graham Red Squirrel (*Tamiasciurus hudsonicus grahamensis*)," <http://ag.arizona.edu/research/redsquirrel/main.html>; Allen, Wadleigh, Warshall, Spicer, "Biological Assessment for Mt. Graham Red Squirrel," 1; Schauffert, Koprowski, Greer, Alanen, Hutton, and Young, "Interactions Between Predators and Mt. Graham Red Squirrels," 498; R. Barry Spicer, James C. DeVos,

collected some specimens shortly afterwards. According to Waddell, “In the beginning it was thought best not draw attention to the existence of the squirrel (no listing or regulatory change) as no development was scheduled for the squirrel area and squirrel hunters rarely hunted on the High Peak road.” Very quickly the course of action changed for the listing of the Mount Graham red squirrel. “When an early Coronado NF land use plan was being reviewed it was found that it identified a small piece of land on High Peak (Mt. Graham) for astrophysical use. Further investigation revealed plans for the Smithsonian to build a scope,” according to Waddell.⁶¹⁸

In fact, on June 14, 1982, astronomer J. T. Williams, of the Smithsonian Institution Astrophysical Observatory, wrote to Robert Tippeconnic, then-supervisor of the Coronado National Forest. Stated Williams, “The Smithsonian Institution requests that the U.S. Forest Service seriously consider the summit area of Mt. Graham as a unique world site for a future major astronomical facility of broad national significance.”⁶¹⁹ The Smithsonian and UA hoped to “protect” the site for use by the astronomers only. Indeed, according to Williams, “A reasonable boundary area [for telescopes and other structures] to remain undisturbed would be the 5 square miles above the 9600 feet elevation contour about the summit.” The astronomers’ “ambitious thinking,” as Williams put it, included upgrades to roads and “water requirements,” as well as the installation of an “underground electrical power line from a source near Fort Grant.” Williams concluded his letter by stating, “Our successful experience in controlling disturbance of natural areas during excavating and our revegetation of disturbed sites with native varieties reinforced our belief that such developments can be effected in harmony with the total environment on that beautiful mountain.”⁶²⁰ On June 15, 1982, Rodger I. Thompson, acting director of UA’s Steward Observatory, supported Williams’ letter.⁶²¹ Nearly a decade earlier, at a 1973 telescope dedication on Mount Hopkins, the

Jr., and Richard L. Glinski, “Status of the Mount Graham Red Squirrels, *Tamiasciurus hudsonicus grahamensis*, of Southeastern Arizona,” (Phoenix: AGFD, 1985).

⁶¹⁸ Waddell to author, email, 5 Aug 2009.

⁶¹⁹ J. T. Williams to Robert Tippeconnic, 14 Jun 1982, 1.

⁶²⁰ Williams to Tippeconnic, 2.

⁶²¹ Rodger I. Thompson to Robert Tippeconnic, 15 Jun 1982.

same observatory from which Williams wrote his letter, Arizona Congressman Morris Udall stated that Mount Hopkins was the “last mountain” for astronomers’ use in southern Arizona.⁶²²

The Coronado National Forest began the process of creating a “plan” during the 1970s regarding how best to manage the entire forest. In December 1982, as part of the Forest Service’s planning process, a draft Environmental Impact Statement was released to the public. One Forest Service draft document included a “one line entry (with a land use designation # that was on the map) in a very thick LMP [Land Management Plan] document with maps and alternatives.” Waddell stated, “This was the very first time anyone knew of any astrophysical plans for the mountain.”⁶²³ In response to that document, the CNF received over 2,500 responses—many against proposed astrophysical development on Mount Graham.⁶²⁴ The proposed land and resources management plan for the Coronado National Forest, finalized in 1986, changed the speed of the listing process.⁶²⁵ As pointed out by Waddell,

With some kind of scope development on the radar screen in the habitat of the squirrel it was thought that the MGRS [Mount Graham red squirrel] should be listed and, even though no hunter had killed red squirrels, that if it was to be listed that the hunting regulations should prohibit the taking of the red squirrels. Previously, the regulations allowed for the taking of “any tree squirrel” which technically included the [Mount Graham] red squirrel even though few knew they even existed.⁶²⁶

Waddell and other biologists have noted that discussions regarding the listing of the Mount Graham red squirrel were taking place well before the 1980s: “I think the USFS and/or the AZGFD started the listing process long before the UofA got into the game but the full build out [astrophysical development] plan for the mountain ramped up speed of the listing process.” As Waddell noted, “At one time, because no squirrels were ever killed, the hunting regulations were changed back to ‘any tree squirrel’ to keep the

⁶²² Bowden, “How the University Knocked Off Mount Graham,” 32; Martin, “The Last Mountain”; Tony Davis, “A Statesman Steps Off the Stage,” *High Country News*, vol. 31, no. 1 (18 Jan 1999); McNamee, “Mountain Under Heavens.”

⁶²³ Tom Waddell to author, email, 7 Aug 2009.

⁶²⁴ U.S.D.A. “Coronado National Forest Plan,” 3, 5.

⁶²⁵ U.S.D.A., “Coronado National Forest Plan.”

⁶²⁶ Waddell to author, email, 5 Aug 2009.

hunting public from being criminally liable for inadvertently killing a red squirrel (which no one knew existed and was rarely ever seen by the public).” To clarify an argument later made by UA, Waddell stated, “When the UofA project got rolling the AZGFD put the red squirrel back on the protected by regulation status, hence the false claim by the UofA that their project actually saved the squirrel from hunting.”⁶²⁷

“In the early 1980s,” according to Warshall, “Arizona Game and Fish Department biologists surveyed three endemic mammals on the Pinaleno Mountains for possible listing as endangered.” However, “At the same time, a consortium of astronomical institutions under the leadership of the Smithsonian Institute and then the University of Arizona requested a special use permit to test the suitability of the highest peaks for an astronomical observatory complex.” The 13-telescope complex originally proposed for Mount Graham was to be placed in an area “inhabited by the Mt. Graham red squirrel in an area previously proposed for wilderness status and with no previous history of winter-time human use.”⁶²⁸ Indeed, even Apaches would not have been there historically in the winter. While the Forest Service was working on its management plans, biologists were trying to list the Mount Graham red squirrel, and UA was attempting to place telescopes on Mount Graham, efforts made to afford Wilderness status to 62,000 acres on Mount Graham were underway; by 1985, the Mount Graham Wilderness Study Area was created.⁶²⁹ And yet it was the efforts of the astrophysical consortium that put the squirrel

⁶²⁷ Waddell to author, email, 5 Aug 2009.

⁶²⁸ Warshall, “The Biopolitics of the Mt. Graham Red Squirrel,” 979. This article, as well as Warshall’s lectures regarding Mount Graham and the red squirrel, is extremely important. See Peter Warshall, “Squirrels on Earth and Stars Above,” The Jack Kerouac School of Disembodied Poetics, Naropa University, 5 Jul 1990, <http://www.archive.org/details/90P008>; Frank Graham, “Mt. Graham makes all equal,” letter to editor, *Eastern Arizona Courier* (Safford, AZ), 5 Jun 2002.

⁶²⁹ PL-98-406, 98 Stat. 1485 (28 Aug 1984); Tom Dollar and Jerry Sieve, *Guide to Arizona’s Wilderness Areas* (Boulder, CO: Westcliffe Publishers, 1999), 22, 196-203. The idea of creating wilderness areas in the Coronado National Forest was first put forth in 1927 when the Tucson Natural History Society proposed the Santa Catalina Natural Area. See “Tentative Rules for a Santa Catalina Natural Area,” 25 Jan 1927, photocopy, in *National Forests: Specific—Coronado National Forest, General*, U.S. Forest Service Headquarters History Collection (Mt. Graham/Coronado), Forest History Society, Durham, NC; Graham, “Mt. Graham makes all equal.”

and its habitat center stage of controversy by the mid-1980s, especially because “UA lobbyists were effective in removing the summit’s wilderness protection in Congress.”⁶³⁰

By the early 1970s, Barry Spicer and other biologists at AGFD and elsewhere took the lead in its efforts to support the survival of the species.⁶³¹ In 1976, the AGFD placed the Mount Graham red squirrel as “Group IV—threatened,” a “species that may be no more scarce than 100 years ago. Restricted distribution. Susceptible to major ecological disturbance.” In 1978 and 1982, again AGFD listed the Mount Graham red squirrel as “Group IV—threatened and unique wildlife.” In 1981, as site testing began on Mount Graham for an astrophysical complex, the U.S. Fish and Wildlife Service contracted the Arizona Natural Heritage Program to begin to identify all mammals in Arizona in need of Federal listing. The squirrel was one species identified and regional foresters were alerted regarding this “sensitive species.” In 1982, the squirrel was identified as one of two “priority 1” mammals in Arizona by the Arizona Natural Heritage Program; the USFWS began to consider listing the squirrel as an endangered species in 1982 and 1985.⁶³² In 1986, the Mount Graham red squirrel was added to the Federal Register as proposed for listing.⁶³³

⁶³⁰ See Mount Graham Coalition, “Mount Graham Red Squirrels,” <http://pinaleno.org/mg-red-squirrels>; Mount Graham Coalition, “Rebuttal of U of V[irginia] Lies About the Mt. Graham Red Squirrel,” <http://pinaleno.org/index.php?page=squirrel-lies>. See Bowden, “How the University Knocked Off Mount Graham, 29-30; Panza, “The Impaling of Apache Holy Ground,” 15.

⁶³¹ Spicer, DeVos, and Glinski, “Status of the Mount Graham Red Squirrels.”

⁶³² U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife for Listing as Endangered or Threatened Species,” *Federal Register*, vol. 47, no. 251 (30 Dec 1982): 58454-58460; U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife for Listing as Endangered or Threatened Species,” *Federal Register*, vol. 50 (18 Sep 1985): 37948-37967. For a chronology of the Mount Graham red squirrel’s listing, see Mount Graham Biology Program, Department of Agriculture and Life Sciences, University of Arizona, “Chronological Events of the Mt. Graham Red Squirrel,” <http://ag.arizona.edu/research/redsquirrel/history.html>.

⁶³³ U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants: Proposed Determination of Endangered Status and Critical Habitat of the Mount Graham Red Squirrel,” *Federal Register*, vol. 51, no. 98 (21 May 1986): 18630. See U.S. Fish and Wildlife Service, “Species Profile: Mount Graham Red Squirrel (*Tamiasciurus hudsonicus grahamensis*),” <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A090>.

During the public hearings that followed in Thatcher and Tucson on August 26 and 27, 1986, a number of groups supported the listing.⁶³⁴ However, UA administrators, despite their promises that UA would support listing, changed their minds. As journalist Jim Erickson noted in *The Arizona Daily Star*, “UA officials have repeatedly said they would not attempt to circumvent the listing process.” Erickson noted, “In a surprise reversal . . . , a University of Arizona vice president [Laurel Wilkening] asked federal officials to drop a nearly extinct subspecies of squirrel from a list of animals proposed for federal protection.”⁶³⁵ This attempted avoidance of U.S. law allowed activists to begin to see what an academic institution was capable of doing. In July 1986, UA President Henry Koffler had written to USFWS regional director Michael Spear: “I, therefore, hope that you will give serious consideration to protective measures short of listing the species.”⁶³⁶ Trust was broken, as UA became the “First university to fight against listing an endangered animal species.” This effort was the first of many “firsts” in its quest for astronomical excellence, including the creation of the “world’s largest telescope.”⁶³⁷

Soon after, the Arizona Congressional delegation joined UA in its requests to the U.S. Forest Service, angering many environmentalists.⁶³⁸ For example, Jerome J. Pratt, a wildlife management consultant and founder of America’s first species-saving organization, Whooping Crane Conservation Association, wrote to the U.S. Secretary of Agriculture in November 1986, just after the elections, to voice his dismay that the Arizona delegation of Representative James Kolbe and others had gone over the head of

⁶³⁴ U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Mount Graham Red Squirrel,” Final Rule, *Federal Register*, vol. 52, no. 106 (3 Jun 1987): 20,995.

⁶³⁵ Jim Erickson, “UA asks U.S. to drop rare squirrel from endangered list,” *Arizona Daily Star* (Tucson), 27 Aug 1986.

⁶³⁶ Henry Koffler to Michael Spear, letter, 21 Jul 1986.

⁶³⁷ Ruth Rogers, letter to editor, “Science on sacred site,” *Star Tribune* (Minneapolis), 9 Jul 2002. See Ronald Kotulak, “Heavens, yes!: Super telescopes launch new kind of ‘Star Wars,’” *Chicago Tribune*, 12 Oct 1986.

⁶³⁸ U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Mount Graham Red Squirrel”: 20,995; Senator Barry Goldwater, Senator Dennis DeConcini, Congressman Morris K. Udall, Congressman Jim Kolbe, Congressman John McCain, Congressman Eldon Rudd, and Congressman Bob Stump to Mr. R. Max Peterson (Chief, U.S. Forest Service, Department of Agriculture), letter, 4 Nov 1986. See Coalition for the Preservation of Mt. Graham, “Mount Graham: A Decision Is At Hand, Comments Due Jan. 20th,” newspaper flyer, n.d. (late 1986/early 1987), 1-4.

the local forest supervisor and communicated their support of the astronomers directly to Max Peterson, Chief of the Forest Service. “The only thing going for the Mount Graham site is that it will provide a nearby playground for the University of Arizona’s astronomers at taxpayers expense. I don’t know what the Arizona Congressional delegation is getting out of this, but what ever it is,” warned Pratt, “it will not be worth the damage it will do to generations yet to follow.”⁶³⁹ The ever-evolving drama of squirrels and scopes was ramping up by 1987.⁶⁴⁰

In spite of opposition from UA, Arizona politicians, and other interests in Arizona, in June 1987, the Mount Graham red squirrel was listed as an endangered species “because its population was small and declining, its range was restricted, and its remaining habitat was threatened by human activities.”⁶⁴¹ UA pushed ahead with its plans anyway, despite potential legal opposition.⁶⁴² A year later in the U.S. Fish and Wildlife Service’s “Biological Opinion,” scientists noted that the telescope project, no matter how it went forward (with three or seven telescopes), would destroy 10 to 27 percent of the Mount Graham red squirrel’s best habitat (“excellent” habitat or 472 acres).⁶⁴³ But the problem of time and the destruction of any forest was against the best interests of all the squirrels. As biologists would later realize in the 1990s, “The mean age of dominant trees at midden sites was [greater than] 212 years in the spruce-fir forest and [greater than] 183 years in the transition-zone forest.” Biologists Andrew Smith and R. William Mannan

⁶³⁹ Jerome J. Pratt to Secretary of Agriculture, 10 Nov 1986. See Jerome J. Pratt, *The Whooping Crane: North America’s Symbol of Conservation* (Tallahassee, FL: Rose Printing Company, 1996).

⁶⁴⁰ Stiles, “Telescope fight still raging.”

⁶⁴¹ Smith and Mannan, “Distinguishing Characteristics of Mount Graham Red Squirrels”: 437. See U.S. Fish and Wildlife Service, “Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Mount Graham Red Squirrel,” 20,994-20,999. See U.S. Fish and Wildlife Service, “Species Profile,”

<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A090>. Various universities have changed the timeline regarding the listing process for the Mount Graham red squirrel in efforts to justify their joining the MGIO and marginalize biologists and environmental activists. See Mount Graham Coalition, “Rebuttal to U of V Lies About the Mt. Graham Red Squirrel.”

⁶⁴² University of Arizona, “Report on Research,” vol. 4, no. 2 (Spring/Summer 1987), 32. See also, David L. Chandler, “Tug-of-war intensifies over an Arizona mountaintop,” *The Boston Globe*, 17 Aug 1987, 41.

⁶⁴³ U.S. Fish and Wildlife Service, “Biological Opinion on the Coronado National Forest Plan and the Mt. Graham Astrophysical Area Plan for the Endangered Mt. Graham Red Squirrel,” Document 2-21-86-F-75 (14 Jul 1988), 11, Appendix Table 1.

pointed out that “Because regeneration of midden sites will take [greater than or equal to] 250 years, management to protect red squirrel middens should focus on preserving existing habitat by limiting activities that remove large trees, snags, or logs, open the forest canopy, or create forest edge [removing trees that creates areas for light to penetrate into the forest habitat].”⁶⁴⁴ In fact, the recovery for the squirrels might take as long as 280-290 years.⁶⁴⁵

It should be remembered that the Mount Graham red squirrel exists mostly in what biogeographers call a “refugia,” an isolated area that exists mostly on islands, of which Mount Graham is, that protects a species from natural disasters. The Mount Graham red squirrel, because it represents a small subset of the original gene pool, the red squirrel, is weaker and most threatened by disturbances.⁶⁴⁶ It is also least likely to continue to survive and many biologists have called it “the most endangered mammal in North America.”⁶⁴⁷ The population of squirrels will continue to adjust to various disturbances such as astrophysical development or global warming, and may result in the

⁶⁴⁴ Smith and Mannan, “Distinguishing Characteristics of Mount Graham Red Squirrels,” 437. See also, Beal, “UA-run observatory harms Pinalenos’ forest, enviros and Forest Service say”; “Mt. Graham red squirrel still at risk,” editorial; Beal, “Undoing damage on Mt. Graham.”

⁶⁴⁵ Smith and Mannan, “Distinguishing Characteristics of Mount Graham Red Squirrels,” 444. The USFWS believed in 1993 that “it will take at least 109 years to stabilize the population and at least 109 to 300 years to restore the squirrel habitat, which had been reduced by fires, logging and development.” See “USFWS corrects mistake by opening mountain: Wants to set aside \$2 million to protect squirrels,” editorial, *Eastern Arizona Courier* (Safford, AZ), vol. 105, no. 23, 9 Jun 1993.

⁶⁴⁶ See Robert H. MacArthur and Edward O. Wilson, *The Theory of Island Biogeography*, 2nd ed. (1967; Princeton: Princeton University Press, 2001); James H. Brown, “Mammals on Mountaintops: Nonequilibrium Insular Biogeography,” *The American Naturalist*, vol. 105, no. 945 (Sep-Oct 1971): 467-478; Bruce D. Patterson, “Montane Mammalian Biogeography in New Mexico,” *The Southwestern Naturalist*, vol. 25, no. 1 (Jan 1980), 33-40; Bruce D. Patterson, “Mammalian Extinction and Biogeography in the Southern Rocky Mountains,” in Matthew H. Nitecki, ed., *Extinctions* (Chicago: University of Chicago Press, 1984), 247-293; Bruce D. Patterson and Wirt Atmar, “Nested Subsets and the Structure of Insular Mammalian Faunas and Archipelagos,” *Botanical Journal of the Linnean Society*, vol. 28, no. 1-2 (May 1986): 65-82; Donald K. Grayson, “The Biogeographic History of Small Mammals in the Great Basin: Observations on the Last 20,000 Years,” *Journal of Mammalogy*, vol. 68, no. 2 (May 1987): 359-375; Davis and Brown, “Role of Post-Pleistocene Dispersal in Determining the Modern Distribution of Abert’s Squirrel”; Lomolino, Brown, and Davis, “Island Biogeography of Montane Forest Mammals in the American Southwest”; Harris, “Fossil Evidence Bearing in Southwestern Mammalian Biogeography”; Alan Cutler, “Nested Faunas and Extinction in Fragmented Habitats,” *Conservation Biology*, vol. 5, no. 4 (Dec 1991); Straney, “Mount Graham International Observatory,” 3, 4; Maricopa Audubon Society, “Biogeography of the High Peaks of the Pinalenos,” 1-39.

⁶⁴⁷ See Beal, “Undoing damage on Mt. Graham.”

extinction of the species.⁶⁴⁸ According to geographer Liam Reddy, “A rather pleasant outcome of the application of the Theory of Island Biogeography was the realization that islands, whether oceanic or terrestrial, represented very fragile and special habitats that warranted protection from development.... A classic and very infamous example is the preservation of the very highest areas of Mt. Graham.... The ecosystem is irreparably damaged [due to telescope development] and the species once dependent on an undisturbed environment are now suffering.”⁶⁴⁹

Conclusion: Stars or Squirrels

“New archeological evidence illustrates that human communities have been present in North America ... for much longer than previously recognized. This means that Indian communities have had a much longer occupation, use, and effect on the landscape,” noted American Indian scholar Melissa Nelson. “Based on this new evidence, it seems prudent to ask that if modern conservationists are concerned with protecting the biological diversity of ‘hotspot’ areas ..., then they should acknowledge and conserve the cultural diversity that coevolved with these rich biological places,” asserted Nelson.⁶⁵⁰ The idea of connecting cultural and natural diversity was not lost during the late twentieth century struggle for Mount Graham, although in other instances, it has been overlooked. From early on—long before UA broke ground—environmentalists noted the Apache connections to their sacred and ecologically unique homeland.⁶⁵¹ During the 1980s, as the

⁶⁴⁸ Straney, “Mount Graham International Observatory,” 2. See also, Center for Biological Diversity, “Mt. Graham Red Squirrel extinction probability ‘moderate to very high,’” News Advisory, 25 Jun 2001. One study on 5 Mar 2001 by Daniel Doak, Elaine Harding, and Cynthia Hartway from the Department of EEB at UC Santa Cruz confirmed earlier studies that warned of cumulative piecemeal habitat destruction.

⁶⁴⁹ Liam Reddy, “Lecture 14: Island Biogeography II,” College of Behavioral and Social Sciences, San Francisco State University, Spring 2007; C. Barry Cox and Peter D. Moore, *Biogeography: An Ecological and Evolutionary Approach*, 7th ed. (1973; Oxford: Wiley-Blackwell, 2005); Maricopa Audubon Society, “Biogeography of the High Peaks of the Pinalenos,” 1-39.

⁶⁵⁰ Melissa Nelson, “Toward A Post-colonial Ecology: Native Americans & Environmental Restoration” (Ph.D. diss., University of California, Davis, 2000), 12-13.

⁶⁵¹ See letter from Paul C. Pierce, a Tucson businessman and Director of the Coalition for the Preservation of Mount Graham, to the Coronado National Forest regarding the draft Environmental Impact Statement in which he pointed out the sacredness of the mountain and its present-day use by Apaches of the mountain. Paul C. Pierce to Coronado National Forest, 19 Jan 1987.

landscape of Mount Graham changed again, the political landscape of the Arizona's U.S. Congressional delegation was required to take an ever greater interest in the mountain.

UA "had expected to be building telescopes on Mount Graham within two years of its 1980 proposal." But by 1988, UA and its research partners were little further along than eight years earlier. A number of factors stood in the path of astronomical development along the way. NEPA had to be followed for the Forest Service to consider the astronomer's then "eight-year-old request."⁶⁵² The Coalition for the Preservation of Mount Graham and AGFD "took a stand against astrophysical development." Once the Mount Graham red squirrel was listed as an endangered species in June 1987, the astronomers felt an even more insurmountable problem. Given that the U.S. Fish and Wildlife Service (FWS) is in charge of enforcement of the Endangered Species Act (ESA), that organization became involved with the proposed development. According to freelance science journalist Elizabeth Pennisi,

In July 1988, FWS issued a biological opinion rejecting a two-peak, seven-telescope proposal for building an observatory on Mount Graham and suggested three alternatives. The university chose one, entailing three telescopes on one of Mount Graham's four peaks and a new access road that avoided the squirrel's most important habitat. The observatory would encompass 24 acres within the 120-acre preserve, a seemingly small piece of prime habitat. The university also insisted that a final decision be made by September. FWS began evaluating that plan for the final environmental impact statement and, ultimately, determining whether astrophysical development was appropriate. According to the FWS opinion, development would force the closing of the upper 1000 acres of Mount Graham to the public and lead to the expiration of leases held by summer residents and a Bible camp. As a result, the US Forest Service said no final decision could be made for at least several months, to provide time for more public comment.⁶⁵³

But the astronomers were anxious about an already growing opposition to their project. In August 1988, UA lobbied its U.S. Congressional delegation to pass a bill introduced by Senator John McCain and with the support of other members of the Arizona Congressional delegation—Jim Kolbe, Morris "Mo" Udall, and Dennis DeConcini—to

⁶⁵² Pennisi, "Biology versus Astronomy," 10.

⁶⁵³ Pennisi, "Biology versus Astronomy," 11.

establish an astrophysical preserve on the mountain so that work could move forward “and, perhaps, so that FWS would not ultimately reject the observatory.”⁶⁵⁴

As botanist Janice Emily Bowers put it,

When the observatory was in the planning stages, conservationists expected that the presence of the endangered red squirrels would be enough to stop it. But university administrators, well-versed in the politics of pressure, somehow short-circuited the environmental assessment process. Those of us who cared watched in dismay as Forest Service officials proved oddly passive in shepherding the land and animals under their jurisdiction. We hoped that the U.S. Fish and Wildlife Service, charged with protection of endangered species, could bring the entire project to a halt. The Fish and Wildlife biologists did what they could.⁶⁵⁵

Botanist Steve McLaughlin wondered while conducting research on Mount Graham “if every high peak must bear some human marker: a fire lookout, a gaggle of radio towers, a microwave station, a ski loft, an observatory.”⁶⁵⁶ But no biologists were able to change the course taken by UA and its allies.

Radical environmental groups such as Earth First! came forward, spurred on by the writings and ideas of Edward Abbey who, “On March 4, 1989, made his final public appearance ... at an Earth First! rally ... [where] he spoke against the proposed ... telescope on Mount Graham by his own employer, the University of Arizona.”⁶⁵⁷ These groups were also unable to halt the march of astrophysical development. The threats and actions of Earth First! against “the failure of conservationists’ ‘approved’ methods to safeguard biological diversity” were also no match for the moneyed, politically-connected special interests of UA and its research partners.⁶⁵⁸ In an interview with the *Arizona Daily Star* in August 1988, Earth First! founder Dave Foreman commented that “There are people who are prepared to make them put the scopes up there several times— which means a telescope doesn’t see the stars very well if its mirror is broken.... It’s

⁶⁵⁴ Pennisi, “Biology versus Astronomy,” 12.

⁶⁵⁵ Bowers, “Mount Graham,” 11.

⁶⁵⁶ Bowers, “Mount Graham,” 12.

⁶⁵⁷ James M. Cahalan, *Edward Abbey: A Life* (Tucson: University of Arizona Press, 2001), 260.

⁶⁵⁸ Dave Foreman, *Confessions of an Eco-Warrior* (New York: Harmony Books, 1991), 144.

certainly not something I'd do myself."⁶⁵⁹ Nonetheless, new forces of eco-warriors and bio-gladiators had some impact on the ways in which the early environmental opposition to the astrophysical development played out.⁶⁶⁰



Edward Abbey's final public appearance.⁶⁶¹

In 1989, renowned botanist Niering remarked about the new, planned impact on the mountain: "I'm very frustrated about the constant impact on high elevations, the constant pressure to knock out these habitats." About Niering's comments, journalist Pennisi stated,

From his life's work, he has concluded that those natural, isolated outposts need to be quite large; otherwise, they lose their integrity and cease to support the unique plant and animal communities that make them special. It is one thing to have genetic isolation of species and quite another for the environment to become too small to support those species adequately.

⁶⁵⁹ Welch, "A *dzil ncha si'an* Chronology," 13; AP, "Radicals threaten telescopes proposed for Mt. Graham site," *The Prescott Courier*, 31 Aug 1988, 8B.

⁶⁶⁰ See Warshall, "The Biopolitics of the Mt. Graham Red Squirrel," 987; Mark Whitaker, "How do we get to interscience?: A three-fold typology describing the existing philosophical sciences, in terms of methodological specializations and similarities, as well as why interscience is important," www.sit.wisc.edu, 23 Mar 2001. As Warshall put it, "To learn nature now is not to be weak at heart. You have to really become a biogladiator. And as a biogladiator, be able to go through successes and failures and absorb the pain of the earth without letting the pain of the earth kill you." See Peter Warshall's "Time Capsule," *11th Hour*, directed by Leonardo DiCaprio (Warner Independent Pictures, 2007).

⁶⁶¹ http://www.rogerwendell.com/images/abbey/ed_abbey_mount_graham.gif, accessed 15 Apr 2010.

Noted Niering, “This is the beginning of incremental impact.... The political pushers are not cognizant of the value of these systems. Once you slice it up, the area will change. Once it’s gone, the next generation will not even know it existed.”⁶⁶² The effects of global climate change as an important factor in fragmentation and habitat loss make species extinction likely.⁶⁶³

Eventually, 1800 trees were felled to make way for the observatory on Emerald Peak; another 3200 were removed for the road to the telescopes, apparently using prison labor.⁶⁶⁴ According to research, “the Engelmann spruce cone crop is believed to play a primary role in regulating annual population size of the endangered *Tamiasciurus hudsonicus grahamensis* ... (Mt. Graham red squirrel).”⁶⁶⁵ As scholars noted in the early 1990s, “recent astrophysical site construction has created more edge habitat and reduced old-growth acreage.”⁶⁶⁶ As UA entomologist Carl Olson once stated,

Some years ago, before observatories, an Environmental Impact Study was conducted. The institution wishing to build these structures in the climax forest was warned about clear cutting even a mere 8.6 acres in the middle of this ecosystem. This could create an edge effect, leading to future problems. Imagine living deep within a shaded, cool, moist forest, but then suddenly being exposed constantly to direct sunlight, wind and new drainage patterns. Isn’t that exactly where a major stand of dead and dying trees exists, surrounding these observatories? Who is to blame, man or beetles?⁶⁶⁷

⁶⁶² Pennisi, “Biology versus Astronomy,” 13.

⁶⁶³ Beal, “UA-run observatory harms Pinaleno’s forest, enviros and Forest Service say”; “Mt. Graham red squirrel still at risk,” editorial; Beal, “Undoing damage on Mt. Graham.”

⁶⁶⁴ Bowers, “Mount Graham,” 11. Regarding the use of prison labor in the Coronado National Forest, see, Eighth National Watershed Congress, “Field Trip,” 4; two references in U.S.D.A. Forest Service, “The Coronado National Forest Works for You!,” n.p.: “Participation in cooperative conservation work by the Bureau of Prison’s camps at Safford ... is mutually beneficial to the Forest Service, the youthful inmates, and the American public.” See also, Bowden, “How the University Knocked Off Mount Graham,” 32; George Asmus, Safford Ranger District, Coronado National Forest, U.S.D.A. Forest Service, “Inmates Help Forest Service Reduce Fire Risk on Mt. Graham,” News Release, 3 Nov 2003; Paul Wine, “Elevated Tales: While it lacks a feeling of completeness, ‘The Road to Mount Lemmon’ will please locals,” *Tucson Weekly*, 18 Jul 2009.

⁶⁶⁵ Stromberg and Patten, “Seed and Cone Production by Engelmann Spruce in the Pinaleno Mountains,” 79. See an important letter to the editor by Stromberg in which she said, “The critical issue is not how high the squirrel population rises during the ‘boom’ part of the cycle [when spruce cones provide a bumper crop], but how low it falls during the ‘bust’ years”: Julie Stromberg, “Mt. Graham editorial proves knowledge is dangerous,” letter to editor, *The Arizona Republic* (Phoenix), 19 Jul 1992.

⁶⁶⁶ Stromberg and Patten, “Seed and Cone Production by Engelmann Spruce in the Pinaleno Mountains,” 80.

⁶⁶⁷ *Arizona Daily Star* (Tucson), 16 Oct 2000. See also, “Roads to Ruin,” *Smithsonian*, Feb 2007, 12.

So, when trees were removed by UA in June 2003 outside of UA's Mount Graham campus or old access roads ("fire breaks") were restored and trees were cut in 1996 and 2004 because of the forest fires, additional squirrel habitat was lost, without question.⁶⁶⁸

Yet no study has addressed whether "the cumulative impacts on the forest ... have been so severe that," as Peter Warshall stated in a 1996 review of the flawed compilation, *Storm Over a Mountain Island: Conservation Biology and the Mt. Graham Affair*, "recovery is even possible in the next few centuries given decadal setbacks from fire, tree disease, and windthrown." The most recent disturbance to affect the Mount Graham red squirrel and the mountain, is the incursion by and presence of humans on the landscape. As one student of the squirrel noted,

Due to the altitude and placement of the Mt. Graham red squirrel, it was isolated from humans for nearly 10,000 years. Within the last 30 years, a new human disturbance has perturbed the ecosystem in ways not experienced before. The University of Arizona constructed [telescopes and] several roads leading [to the top of] the mountain. This disturbance has led to widespread fragmentation of the landscape. In addition, the creation of new roads has led to invasion of insect species up the mountain to ranges not previously found. Fire suppression has also become a factor as fallen logs, snags, and other decaying trees are removed to stop fires from occurring. The lack of fuel on the forest floor has led to a drastic decrease in replenishing forest fires, and a decreased amount of suitable habitat for midden and nest sites.⁶⁶⁹

⁶⁶⁸ The Mount Graham Red Squirrel Monitoring Program, University of Arizona, "Wildfires Within Red Squirrel Habitat," <http://ag.arizona.edu/research/redsquirrel>; Koprowski, Alanen, and Lynch, "Nowhere to Run and Nowhere to Hide"; Koprowski, Leonard, Zugmeyer, and Jolly, "Direct Effects of Fire on Endangered Mount Graham Red Squirrel": 59-63; David J. A. Wood, Sam Drake, Steve R. Rushton, Doug Rautenkranz, Peter W. W. Lurz, John L. Koprowski, "Fine-Scale Analysis of Mount Graham Red Squirrel Habitat Following Disturbance," *Journal of Wildlife Management*, vol. 71, no. 1 (2007): 2357-2364; "huge blaze churns north," *The Arizona Daily Star* (Tucson), 23 Jun 2003, www.azstarnet.com/star/mon/30623WILDFIREMAIN.html, accessed 23 Jun 2003.

See Arthur H. Rothstein, "Wildfires Imperil Endangered Red Squirrel," *Associated Press*, 8 Jul 2004; Greg Jones and Lindsey Stockton, "Mt. Graham fire cooled by weather," *Arizona Range News* (Wilcox, AZ), 14 Jul 2004; Emily Kaiser, "Mt. Graham fires 95 percent contained," *The Minnesota Daily* (University of Minnesota), 21 Jul 2004, 2; anonymous, "Squirrels and Scopes in the Line of Fire; The Mount Graham Red Squirrel Suffers an Ecological Shock," *High Country News*, 30 Aug 2004; Coronado National Forest, "Summary," as part of the "Draft Environmental Impact Statement," 2009; Pyne, "The Wildland/Science Interface," 3.

⁶⁶⁹ Wallace, "The Mt. Graham Red Squirrel," 9-10; Koprowski, Alanen, and Lynch, "Nowhere to Run and Nowhere to Hide."

Most significantly, Warshall noted few scholars have “dealt adequately with the relevant science and ethics—sparked to fierce flames by the exceptional biodiversity, cultural belief systems, multiple-use policies, and political power brokering surrounding this tiny piece of the planet.”⁶⁷⁰

The scientists who saw the squirrel as a “teacher,” “guide,” “ally,” or “friend” and questioned the events of the late 1980s, followed the letter of the law, stood up to UA and its allies, or discovered biological evidence that ran contrary to UA’s efforts, often found themselves without work or funding.⁶⁷¹ “The University of Arizona and the Forest Service did what they could to minimize the influence of biologists whom they perceived as compromising their chances to complete the astrophysical project, including,” according to Warshall, “selective awarding of contracts, internalizing data collection, switching responsibility to biologists favorable to agency actions, placing obstacles in the path of conservation groups requesting biological data, and issuing a warning to graduate students who oppose the project from within the University’s Department of Ecology and Evolutionary Biology.”⁶⁷² Of the known casualties were Warshall, in UA’s Office of Arid Land Studies; Barry Spicer, in AGFD; a graduate student who worked on the Mount Graham red squirrel for AGFD; several personnel at multiple agencies; officials Leon Fisher and Kathleen Milne; and then-Coronado Supervisor Jim Abbott. These biologists saw their funding stop, felt the pressures were too great, quit to become contractors, “simply left but would not talk,” or were threatened by Senator John McCain to get the third telescope passed and then retired.⁶⁷³ According to Waddell, “For any UofA biologist

⁶⁷⁰ Warshall, “Astronomy and Animals on Mt. Graham,” 1480. At least two other authors reviewed Conrad A. Istock and Robert S. Hoffmann’s *Storm Over a Mountain Island*: Walt Anderson, “Review: [untitled],” *The Journal of Wildlife Management*, vol. 61, No. 2 (Apr., 1997), pp. 577-579; Pam Berry, “Review: Too Hot to Handle?,” *Global Ecology and Biogeography Letters*, vol. 6, no. 6 (Nov 1997): 459-460. See Ames, “A History of the Forest Service,” 134.

⁶⁷¹ See the excellent essay by Peter Warshall, “Finding Your Animal Ally: How a Squirrel Led Me to Congress and the Vatican,” *voices ... Articles from Conference Visionaries: Nature, Culture & Spirit*, www.bioneers.org/voices/01nature_culture/peter_warshall.html, accessed 13 Nov 2003.

⁶⁷² Warshall, “The Biopolitics of the Mt. Graham Red Squirrel,” 987.

⁶⁷³ Peter Warshall to author, email, 29 Jul 2009. See also, Robin Silver to author, email, 1 Aug 2009. For more on McCain’s role in the Mount Graham telescope project, his efforts to expedite the astrophysical development, and his agreements with and threats to government officials, see Michael Murphey, “Report ties job threat to McCain: Forest Service staff bullied, GAO says,” *The Phoenix Gazette*, vol. 108, no. 295, 28 Jul 1990; Judith Wunsch, “Perfidy,” letter to editor, *The Phoenix Gazette*, 11 Sep 1990;

or astronomer, USFS or USFWS biologists or supervisors at any level, to speak out for the wildlife resource it was a career progression ending event. In the 1980's the UofA may have been the most powerful and corrupt 'evil empire' in the USA."⁶⁷⁴

By the summer of 1988, UA reached out again to the Arizona Congressional delegation of Kolbe, Udall, DeConcini, and McCain. In August, UA asked Congress to "designate the mountaintop an astrophysical reserve exempt from the [biological] assessment process."⁶⁷⁵ UA ramped up its Congressional campaign to gain access to Mount Graham. UA placed opinion columns in various Arizona newspapers by, among others, current and former UA Presidents Koffler and John Schaefer, then president of the Research Corporation that controlled the astrophysical development.⁶⁷⁶ The editors of *The Arizona Daily Star* inquired, "Should Congress ignore the requirements of the Endangered Species Act and the National Environmental Policy Act just because the

Jean A. Fleck, "Squirrel deception," letter to editor, *The Phoenix Gazette*, 12 Sep 1990; John Wesson, "McCain and history," letter to editor, *Progress* (Scottsdale, AZ), 12 Sep 1990, 12; Mark Genrich, "Trilogy: Notes on Inouye, McCain and NRA," opinion, *The Phoenix Gazette*, 26 Dec 1990, A13; Randy Spies, "Senator out of line," opinion, *The Lantern* (Ohio State University), 7 Jan 1991; Gene Anne Parker, "Senators teach lies," *The Lantern* (Ohio State University), 7 Jan 1991; Karen Gotch, "Readers write about Mount Graham: His lips move," letter to editor, *The Phoenix Gazette*, 25 Jan 1991; Shirley McKean, "Redefining Ethics," opinion, *Progress* (Scottsdale, AZ), 25 May 1992; Coalition to Save Mt. Graham, "Save a National Biological Treasure: Mount Graham Scandal: A Story of Political Deceit and Environmental Lawbreaking," brochure, Dec 1990, 4; Dougherty, "Star Whores"; John Dougherty, "Making a mountain into a starbase"; Amy Silverman, "Saving Private Interests," *Phoenix New Times*, 6 Aug 1998; St. Clair, "Star Whores"; Alan Maimon, "Arizonans recall run-ins with McCain," *Las Vegas Review-Journal*, 5 Oct 2008, <http://www.lvrj.com/news/30483079.html>.

⁶⁷⁴ Tom Waddell to author, email, 21 January 2008.

⁶⁷⁵ Elizabeth Pennisi, "Arizona seeks to sidestep the endangered species law," *Nature*, vol. 344 (25 Aug 1988).

⁶⁷⁶ Most articles stated that UA astronomers have waited "4 ½ years," that the amount of land requested was small (20-120 acres), and that it was time to give them what they wanted. UA's Office of Public Information put together a number of articles for distribution in a packet titled, "Mount Graham International Observatory: Southern Arizona's World-Class Site for Science," n.d. [Aug or Fall 1988]. Articles included: Ben Avery, "Squirreling away land on Mount Graham makes no sense," *The Arizona Republic* (Phoenix), 22 Jul 1988; "Cut the red tape on telescopes for Mt. Graham," editorial, *Tucson Citizen*, 27 Jul 1988; John P. Schaefer, "Scientific preserve is the right choice for saving Mt. Graham," *Tucson Citizen*, 28 Jul 1988; "Stop dragging feet on Mt. Graham telescopes," comment, *Green Valley News and Sun* (Green Valley, AZ), 29 Jul 1988; "Time to move on Mt. Graham," comment, *Tucson Citizen*, 5 Aug 1988; "Congress must act on scopes," opinion, *Sierra Vista Herald* (Sierra Vista, AZ), vol. 33, no. 250, 7 Aug 1988; "Ruddy Rodent Celebrities: End impasses on squirrels," *The Arizona Republic* (Phoenix), vol. 99, no. 83, 9 Aug 1988; Henry Koffler, "Opinion causes controversy for UA," *Eastern Arizona Courier* (Safford), 10 Aug 1988; "Action, not reaction answer to mountain woe," editorial, *Eastern Arizona Courier* (Safford), 10 Aug 1988. See also, James Coates, "Fervent battle pits science against nature, and leaves university divided," *Chicago Tribune*, 5 Jul 1990, C6.

process is tedious and time-consuming?” Kolbe stated, “I’m concerned that further delays, either through litigation or supplemental EIS (environmental impact statement) reports, would lead to a ‘technical knockout’ of the scope proposal,” to which the editors responded, “In other words, following the letter of the law and allowing the public to exercise its legal options are just too much trouble.” Commented the editors, “It sets a bad precedent” by allowing Congress to “Subvert the rules for the university.” Furthermore, “no one is above the law,” quipped the newspaper’s editors.⁶⁷⁷

“Attempts to attach a rider to federal legislation before the recess on 12 August failed.” USFWS administrators continued to help the Arizona delegation, nevertheless. UA’s Vice President Wilkening complained that the process had already taken four and a half years: “We cannot pursue any additional processes that would require further delay.” Randall A. Smith, a Forest Service biologist, stated that the legislative actions “are taking the final decision away from the Forest Service and they are taking away from the public the right to comment.”⁶⁷⁸ UA forged ahead. By late 1988, UA and its research partners got what they wanted: a foothold on the mountain. With the help of the law firm Patton, Boggs, & Blow—often referred to as the nation’s top government lobbying firm “which had engineered the multibillion-dollar Chrysler Corporation bailout of the early 1980s”—and a \$1 million lobbying blitz, UA made short work of their quandary.⁶⁷⁹ In October, no hearings were held as legislation was attached to a public lands bill that would help UA and affect the health of both the squirrel and its forest home. About the proposed legislation, Michael Bean, a wildlife expert from the Environmental Defense Fund stated, “Perhaps the irony is that the scopes are [justified] at least in part to search the heavens for signs of life while certainly contributing to the elimination of a unique form of life here on earth.”⁶⁸⁰ John Ernst of the National Wildlife Federation said that the legislation

⁶⁷⁷ “End run. Or, circumvent and conquer Mount Graham,” editorial, *The Arizona Daily Star*, 7 Aug 1988.

⁶⁷⁸ Pennisi, “Arizona seeks to sidestep the endangered species law.”

⁶⁷⁹ McNamee, “Mountain Under Heavens”; Bowden, “How the University Knocked Off Mount Graham”; “Astronomers, Biologists Clash Over Observatory Plans,” *The Washington Post*, 8 Mar 1990, A8.

⁶⁸⁰ “Congress End-Runs Endangered Species Act in Arizona, Called Worst Threat Since Tellico Dam,” *Land Letter: The Newsletter for Natural Resource Professionals*, vol. 7, no. 20 (1 Nov 1988). See also, James Coates, “Endangered squirrels losing Arizona fight,” *Chicago Tribune*, 18 Jun 1990, C4.

“gutted” the Forest Service’s NEPA process. But Bean’s comments foretold the reality of this struggle: “If the President signs the bill, I think that’s it.”⁶⁸¹

Through the Arizona-Idaho Conservation Act of 1988, Congress “authorize[d] the University of Arizona to establish an international astronomical observatory on Mount Graham in Coronado National Forest, Ariz., subject to conditions recommended by a Fish and Wildlife Service biological opinion issued under the Endangered Species Act, in order to mitigate the project impact on an endangered species of squirrels.”⁶⁸² Despite setbacks to astronomers’ plans and periodic victories by Apaches and their environmentalist allies, UA and its research partners, with this precedent-setting legislation in hand, quickly moved forward to claim a spot on the mountain. In addition to being the first university to oppose the listing of an endangered species, UA became the first university to obtain exemption in peacetime from all environmental and cultural law. Their efforts to circumvent various cultural and environmental laws in a quest for telescopic vision are not unlike one American Indian creation story. “At the time of the Creation, the Cherokee say, the white man was given a stone, and the Indian a piece of silver. Despising the stone, the white man threw it away. Finding the silver equally worthless, the Indian discarded it,” according to anthropologist Peter Nabokov. “Later the white man pocketed the silver as a source of material power; the Indian revered the stone as a source of sacred power.”⁶⁸³ In similar ways, the silver of the story resembles astronomers’ telescopes, just as the rock is the metaphorical representation of Mount Graham.

Nevertheless, one mammal remains at the center of the struggle for this mountain. It is difficult for Apaches and environmentalists not to remain saddened in the face of the occupation and destruction of the Mount Graham red squirrel’s habitat—the mountain itself—especially when sensible conservationists working in Arizona decades earlier noted the fallacy of old-line thinking. Writing in the late 1940s, Aldo Leopold noted:

⁶⁸¹ “Congress End-Runs Endangered Species Act in Arizona, Called Worst Threat Since Tellico Dam.”

⁶⁸² PL 100-696, 102 Stat. 4571 (18 Nov 1988).

⁶⁸³ Peter Nabokov, *Native American Testimony: A Chronicle of Indian-White Relations from Prophecy to the Present, 1492-2000* (New York: Penguin Books, 1999), 32

It is a century now since Darwin gave us the first glimpse of the origin of species. We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us, by this time, a sense of kinship with other fellow-creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.⁶⁸⁴

⁶⁸⁴ Leopold, *A Sand County Almanac*, 109; Manes, *Green Rage*, 24.

The University [of Arizona] is filled with too many people who are filled with hubris. They feel untouchable. Students are not given respect nor regard. It is unfortunate but the only force that seems to get any attention from the University is economic force.⁶⁸⁵

—Robert Stewart Flores, Jr.

[T]hose telescopes you use for such distant vision *blind you* to views of the far *greater wrong* that *you continually commit against him to whom you owe everything*, your Indian benefactor....⁶⁸⁶

—Iktomi Lila Sica, *America Needs Indians!*

How are we going to present the sacred to people who have no idea what is sacred?⁶⁸⁷

—Vine Deloria, Jr.

⁶⁸⁵ Robert Stewart Flores, Jr., was responsible in 2002 for the murder of several University of Arizona hospital employees before he took his own life. Robert Stewart Flores, Jr., “Communication From the Dead,” letter to editor, *Arizona Daily Star* (Tucson), 30 Oct 2002, 22, <http://cgi3.azstarnet.com/specialreport/page22.html>; Vijay Pottathil, “Community building needed to prevent further atrocities,” letter to editor, *Arizona Daily Wildcat* (University of Arizona), 1 Nov 2002.

⁶⁸⁶ Iktomi Lila Sica, *America Needs Indians!* (Denver: Bradford-Robinson, 1937), 414. Emphasis in original.

⁶⁸⁷ Vine Deloria, Jr., quoted in Sacred Lands Film Project, *2002 Annual Report* (La Honda, CA). Deloria was speaking at the Department of Interior, Washington, D.C.

**SACRIFICED FOR SCIENCE: THE UNIVERSITY OF ARIZONA AND THE
PAIN, POLITICS, AND PROMISES IN THE STRUGGLE FOR MOUNT
GRAHAM, 1988-2002**

No more can I sit on the REZ and be quiet
 Speaking out, not trying to start a riot
 Wendsler took the time and gave me the low down
 Didn't realize what was going on in my tribe town
 Telescopes is being put on our spiritual church
 Saying cutting down trees is not going to hurt
 Clear cuts the plan for the other man
 Doing anything they can for it's not Apache land
 This song I write, hope it clears the smoke
 Trying to find god in space yeah that's a joke
 Got to stop right here and get to the point
 Mount Graham is like a body, don't pull out the joint
 Can't they understand get it through their thick head
 this mountain is alive maybe to you its dead
 I'll open your eyes to see a new perspective
 It means everything to us got to be protected
 Don't get me wrong no disrespect to god
 But our culture and religion you're trying to rob
 From the Apaches playing by creator's rules
 your breaking everyone of them using machinery tools
 That is what I have to say: beware U of A
 Traveling to the top because it's time to pray
 See fear in your eyes, don't try to fake it
 You know what Mount Graham is sacred

We need young ones to help with the revolution
 All this talk about money is much confusion
 Mount Graham is priceless something they can't see
 If we lost the battle what would we say to thee
 great spirit it won't hear of it
 Of defeat don't want to let it down hate to get beat
 The old ones can no longer fight on their own
 Come and help so we can keep our mountain home
 Stripping our holy spot trying to make a wall
 Lend a hand so we can swing the wrecking ball
 Building a bridge so we all can hold our ground
 Fly high in the sky, some try to shoot us down
 Make our warriors Geronimo and Cochise feel proud
 Do you know how it is come and run with the crowd
 Your listening to a true f.b.i

Inspiring you to take a stand for the Apache side
 This is for the young kids reaching out to you
 If you are like me I know you hate lose to
 think about the pain see eyes filled with tears
 Not joining you'll feel guilt for the rest of your years
 Now that I said this I'll be a public enemy
 My uncle Wendsler is number one, I guess second I'll be
 Not given up staying strong with the team
 Mount Graham is sacred, you know what I mean⁶⁸⁸

Brothers Btaka and Rollin' Fox, both of whom are Apache/Pomo, created the album "Strictly Native" and won the 2001 Native American Music Award for "Best Rap/Hip-Hop Recording" for their artistry. The last tract on the album was simply titled, "Mt. Graham." It described the "education" that they received regarding the mountain from their uncle, a San Carlos Apache named Wendsler Nosie, that enabled them to write about what was happening. "Mt. Graham" talks about the human form of the mountain, briefly mentions the history of Apache warriors' efforts, and presents a call to action for the next generation of Apache people. It is an example of profound Apache resistance in the present. Learning about the struggle for Mount Graham encouraged Btaka and Rollin' Fox to reconnect with their families and cultural roots on the San Carlos Apache Reservation.⁶⁸⁹ By the time they received their award in late 2001, the University of Arizona (UA) astronomers again were attempting to locate new partners to help fund their astrophysical project atop Mount Graham. They were already lobbying both the University of Virginia and the University of Minnesota to join as new partners. During the next year, the university campuses in Charlottesville and Minneapolis saw a great amount of protest and lobbying, and were visited by various Western Apaches and environmentalists who hoped that these academic institutions would turn away from what many people and academic institutions had determined was, for multiple reasons, an unsound project.

⁶⁸⁸ Rollin' Fox, "Strictly Native" (Tempe, AZ: Strictly Native Entertainment, 2001), compact disk.

⁶⁸⁹ Btaka to author, personal communication, 1-3 Aug 2003; Rollin' Fox to author, personal communication, 1-3 Aug 2003. See "SNE Presents: Native American Music Award Winner for Best Hip-Hop Recording," flyer, The Rialto Theatre, Tucson, 8 Jun 2002.

In the years between the Congressional exemption in 1988 and UA's lobbying efforts from late 2001 until late 2002, a number of deals, lies, and events came to light that often provided continuity to the history of the struggle for Mount Graham. When new information was disclosed during those 14 years through Freedom of Information Act requests, Congressional investigations, court cases, and materials leaked to environmental organizations, it often tainted the reputations of numerous Congressmen, university officials, and astronomers; challenged the objectivity of scientists; and threatened the perceived fairness in higher education. Newly-disclosed information also shook the foundations of sovereign Indian tribes; challenged the effectiveness of cultural, religious, and environmental rights law; and generally added to an overall culture that supported an unlevel playing field for astronomers, university administrators, and elected government officials against government biologists, environmentalists, and Apaches. A key component of any analysis of the history of the recent struggle for Mount Graham concerns the disentanglement of sovereignty and the ever-mutating forms of colonialism that still unfold in the present. What the history demonstrates is that Western Apache people have passionately resisted onslaughts against their sacred sites through the creative mobilization and lobbying of local, national, and international resources and organizations, including European governments and the United Nations.

* * * * *

If environmentalists and Western Apaches had read the journals *Science* or *Science News* during the early and mid-1980s, they might have been better prepared for the forthcoming struggle for Mount Graham. The first mention about astrophysical development on Mount Graham in scientific journals was made no later than 1982, when M. Mitchell Waldrop, a science writer and physicist for the journal *Science*, mentioned the placement of UA telescopes on either Mauna Kea or Mount Graham.⁶⁹⁰ By the time of the Congressional exemption in November 1988, the correspondence among biologists, forest supervisors, environmental protection groups, and Arizona and Smithsonian

⁶⁹⁰ M. Mitchell Waldrop, "The New Technology Telescopes," *Science* 216, no. 4543 (16 Apr 1982): 281.

astronomers was quite extensive.⁶⁹¹ UA selected Mount Graham in the Coronado National Forest and called their largest telescope proposal the “Columbus Project.”⁶⁹² What seemed lost on astronomers and the Forest Service was that Columbus and Coronado were two Spanish-funded colonizers, largely disliked throughout Indian country. As one opponent of astrophysical development put it, “It must also be remembered that the discovery of America included the exportation of the inquisition. For the University of Arizona to glorify this discovery by symbolically crowning the mountain, sacred to the San Carlos Apache, with a monument to Columbus, is a clear act of cultural imperialism.”⁶⁹³ By the mid-1980s new partners had joined the development, the cost was largely underestimated, and it became clear that Mount Graham was the wrong mountain on which to conduct the science of astronomy.

According to *Science*, “The first announcement came in October of 1986, when the University of Arizona, Ohio State University, and the University of Chicago officially joined in a partnership to build a unique ‘binocular’ telescope atop Arizona’s Mount Graham by the early 1990’s.”⁶⁹⁴ In one article, chair of the UA’s Department of Astronomy and Steward Observatory director, Peter Strittmatter, said, “Our approach was to emphasize ease of operations and lowness of cost.”⁶⁹⁵ Dietrick E. Thomsen reported, “The site chosen, Mt. Graham ..., has some of the darkest skies and least cloud cover in

⁶⁹¹ Between 1982 and 1994, the Forest Service sent and received at least 900 letters regarding Mount Graham. See “Data Table for MGRS” [chronology of correspondence, activities pertaining to Mt. Graham for astrophysical use: 6/14/82-12/17/93 and 9/13/88-11/4/93], photocopy, in *Wildlife: Mount Graham Red Squirrel*, U.S. Forest Service Headquarters History Collection (Mt. Graham/Coronado), Forest History Society, Durham, NC.

⁶⁹² Amidst constant pressure and in light of the fact that they had missed their initial date of completion in time for the Columbus quincentenary celebrations, UA later changed the name of the Columbus telescope to the Large Binocular Telescope. See Bridget A. Morrissey, “Mt. Graham telescope renamed,” *Arizona Daily Wildcat* (University of Arizona), 30 Apr 1993; “Footnotes: The U. of Arizona Renames the Columbus Telescope,” *The Chronicle of Higher Education*, 12 May 1993. See also Kim A. McDonald, “U. of Arizona and Apaches Embroiled in Dispute Over Columbus Telescope,” *The Chronicle of Higher Education*, 18 Dec 1991.

⁶⁹³ Quoted in Sal Salerno, “San Carlos Apaches Demand Halt to Columbus Project,” *The Circle* (Minneapolis), Jul 1991, 19.

⁶⁹⁴ M. Mitchell Waldrop, “The New Art of Telescope Making,” *Science* New Series, 234, no. 4783 (19 Dec 1986):1495. See also Associated Press, “Sights set on high-powered telescope,” *Chicago Tribune*, 30 Apr 1985, C3; Ronald Kotulak, “U. of I. joins team for largest telescope,” *Chicago Tribune*, 30 Sep 1986, C6.

⁶⁹⁵ Quoted in Waldrop, “The New Art of Telescope Making,” 1496.

the United States, but it is also high and windy.”⁶⁹⁶ He later stated in a report from Pasadena, California, on the meeting to the American Astronomical Society, “New mirror for an old observatory” section of the report: Vatican will place its telescope, with a mirror created by UA, on top of Mount Graham.⁶⁹⁷

One article from 1987 made the astronomer’s work clear: “The first astronomical telescope was two lenses in a tube; Galileo could hold it in his hand. Today’s telescopes are so big that mountaintops sometimes have to be sheared off to make room for them.”⁶⁹⁸ The author specifically mentioned the telescope on Mt. Graham. In another article, the same author mentioned “the international collection of telescopes planned for Mount Graham.”⁶⁹⁹ By the end of the Reagan administration, events were already in motion that would shake the foundations of Apache lifeways, unite various groups on both sides of the religion-science debates, and shape the ways in which one university and its research partners would conduct its business and act with regards to the environment and indigenous peoples.⁷⁰⁰

The first and potentially most expensive action by UA was to obtain a Congressional exemption from Arizona Senators John McCain and Dennis DeConcini, and Arizona Representatives Jim Kolbe and Morris “Mo” Udall, as well as the rest of the Arizona delegation—some of the biggest players in governmental politics from the Southwest.⁷⁰¹ Bought and paid for at taxpayer expense, the exemption tipped off a decades-long struggle that pitted academic astronomers and Jesuit priests against Western

⁶⁹⁶ Dietrick E. Thomsen, “Taking the Measure of the Stars,” *Science News* 131, no. 1 (3 Jan 1987): 10-11.

⁶⁹⁷ Dietrick E. Thomsen, “Astronomy,” *Science News* 131, no. 3 (17 Jan 1987): 40.

⁶⁹⁸ Dietrick E. Thomsen, “Big Telescopes on a Roll,” *Science News* 132, no. 11 (12 Sep 1987): 170.

⁶⁹⁹ Dietrick E. Thomsen, “Astronomy in West Germany Goes Supernational,” *Science News* 132, no. 21 (21 Nov 1987): 332-333.

⁷⁰⁰ For additional reports in scientific publications regarding Mount Graham astrophysical development, see M. Mitchell Waldrop, “The Long, Sad Saga of Mount Graham,” *Science*, vol. 248, no. 4962 (22 Jun 1990): 1479-1481; M. Mitchell Waldrop, “Mount Graham Up in the Air,” *Science*, vol. 249, no. 4964 (6 Jul 1990): 26; M. Mitchell Waldrop, “A Go-Ahead for Mount Graham?” *Science*, vol. 249, no. 4972 (31 Aug 1990): 988.

⁷⁰¹ Senator Barry Goldwater, Senator Dennis DeConcini, Congressman Morris K. Udall, Congressman Jim Kolbe, Congressman John McCain, Congressman Eldon Rudd, and Congressman Bob Stump to Mr. R. Max Peterson (Chief, U.S. Forest Service, Department of Agriculture), letter, 4 Nov 1986. See Coalition for the Preservation of Mt. Graham, “Mount Graham: A Decision Is At Hand, Comments Due Jan. 20th,” newspaper flyer, n.d. (late 1986/early 1987), 1-4. See also, Tony Davis, “A statesman [Mo Udall] steps off the stage,” *High Country News* (Paonia, CO), vol. 31, no. 1 (18 Jan 1999).

Apaches and their environmentalist allies. The struggle brought together strange bedfellows to create unique alliances.⁷⁰² What initially appeared to be an age old fight of science versus religion was indeed not the case, especially when these alliances were considered. For example, the Vatican partnered with a research university and other academic and scientific institutions against Apaches who have profound scientific knowledge of the universe and deep-rooted religious beliefs and against environmentalists and biologists who know about ecological ruination. It shows just how little the struggle has to do with science versus religion and how much it has to do with domination and power—who has it and who does not—and the preeminent importance of land in American Indian cultures. Although the struggle over Mount Graham has changed over time (logging; water rights; science), the ongoing process of colonialism provides continuity.

When UA began to lobby the U.S. Forest Service for a place on the mountain in the early 1980s, its astronomers were faced with following the processes outlined by strict U.S. environmental, religious, and cultural laws such as the National Environmental Protection Act (NEPA) and Endangered Species Act (ESA). UA astronomers also felt pressure from the eight-ounce Mount Graham red squirrel that was tossed into the maelstrom when biologists listed the mammal in 1987 as an endangered species. The entire mountain is an ecologically unique “sky island” that contains at least 18 endemic species and has been compared to the Galápagos Islands. Flush with funds from its partners and state and federal tax money, UA astronomers felt strongly that they could not waste years of planning by finding a different location for the project or a fairer solution to their problems. Because of the unique spiritual and ecological characteristics of Mount Graham; because the mountain had been a national forest for so long; given the resistance that had been mounting and certainly would increase, and the potential withdrawal from the project by investors, UA habitually “[took] the low road,” according

⁷⁰² “Indians and environmentalists agree to protect sacred sites,” editorial, *The Navajo-Hopi Observer*, 11 Dec 1991; Press Release regarding the Native American/Environmental Roundtable, 27 Nov 1991; Native American/Environmental Roundtable, Washington, D.C., “Resolution in Support of the San Carlos Apache Affected by a planned construction of a telescope complex on Mt. Graham, Arizona,” 8 Nov 1991.

to biologist Peter Warshall, and bypassed any real efforts at negotiation with tribal governments and biologists. UA lobbied Congress to get what it wanted.⁷⁰³

In the process of obtaining its place on the mountain, UA was the initial academic institution in the United States to achieve several dubious firsts regarding U.S. environmental, cultural, religious, and human rights law in its pursuit of astronomical excellence. Before it obtained an exemption from federal environmental and cultural laws, UA was the first university to lobby against the creation of a national wilderness (Mount Graham Wilderness Area) in 1984 and the first university to fight against the listing of an endangered species in 1986.⁷⁰⁴ Soon afterwards, UA obtained the additional recognition of being the first university to lobby and secure not one, but two, precedent-setting congressional exemptions (1988 and 1996) to subvert U.S. American Indian cultural and religious protection law, as well as U.S. environmental law; to promote a project whose biological approval was acknowledged to be fraudulent; to fight in court against an endangered animal species; to litigate against traditional American Indian religious practice rights; to arrest for trespass an American Indian accessing his ancestral sacred ground for prayer; to require “prayer permits” for Native American prayer on ancestral sacred ground; to be the only U.S. university in the twentieth century to sue an Indian tribe for its religious beliefs; and to devise a written plan to divide and exploit differences and factions within a sovereign Indian tribe.⁷⁰⁵ UA’s observatory is also the only observatory in the world protected by police attack dogs.⁷⁰⁶ Although UA led the efforts, numerous academic institutions and scientific organizations, including the Vatican, Italy’s Arcetri Astronomical Observatory (a research arm of the Italian

⁷⁰³ John Dougherty, “Star Whores: The ruthless pursuit of astronomical sums of cash and scientific excellence,” *Phoenix New Times*, vol. 24, no. 25 (16-22 Jun 1993), 2-11. Dougherty won awards for his reporting. See “Writers Rate: Dougherty wins journalist of the year award; *New Times* captures 12 firsts,” *Phoenix New Times*, 5 May 1993.

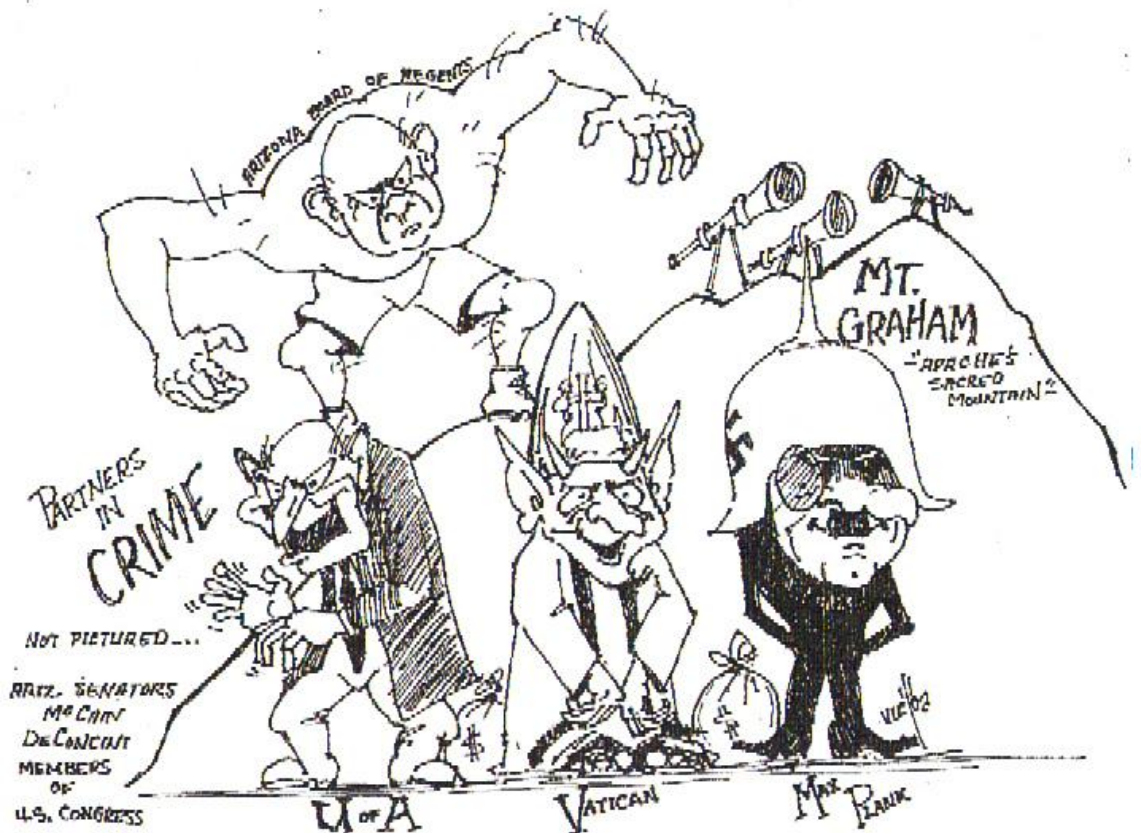
⁷⁰⁴ Charles Bowden, “How the University [of Arizona] Knocked Off Mount Graham,” *City Magazine* (Tucson), 1 Jan 1989, 29-30; Jim Erickson, “UA asks U.S. to drop rare squirrel from endangered list,” *Arizona Daily Star* (Tucson), 27 Aug 1986; Dougherty, “Star Whores”; Gregory McNamee, “Mountain Under Heavens,” *terrain.org: A Journal of the Built and Natural Environments*, no. 8 (Autumn 2000), <http://www.terrain.org/articles/8/mcnamee.htm>; Frank Graham, “Mt. Graham makes all equal,” letter to editor, *Eastern Arizona Courier* (Safford, AZ), 5 Jun 2002.

⁷⁰⁵ Ruth Rogers, letter to editor, “Science on sacred site,” *Star Tribune* (Minneapolis), 9 Jul 2002.

⁷⁰⁶ Gregg Jones, “K-9s need constant training,” *Eastern Arizona Courier* (Safford, AZ), 18 Apr 2004, 1A, 7A.

government), and Germany's Max Planck Institute, one of UA's partners who planned to place a submillimeter radio telescope (SMT) on Mount Graham, have followed, been party to, and entirely supported and endorsed these actions.

The struggle for Mount Graham strengthens the continuum of colonialism, imperialism, and racism inflicted against indigenous peoples and nature in the U.S. That some institutions have dropped out of the telescope project or considered it and gone elsewhere to pursue astronomical research shows that it is possible to find other less destructive places to conduct their research.



“Partners in Crime”⁷⁰⁷

The University of Arizona in Tucson was founded in 1885, but its astronomy program took off amongst controversy in 1906 when astronomer Andrew Ellicott Douglass left the

⁷⁰⁷ Victor, n.d. (Possibly Mar 1992). The cartoon represents UA and its research partners: the Vatican and Max Planck Institute, as well as the support of the Arizona Board of Regents.

Lowell Observatory in Flagstaff because of a disagreement with its director, Percival Lowell. Douglass spent the first decade at UA fundraising for a research-quality telescope. On UA's campus in 1916, he established the Steward Observatory, "the first astronomical telescope to have been built using All-American made products."⁷⁰⁸ As the "father of dendrochronology," Douglass later created UA's Laboratory of Tree-Ring Research in 1937 "in the hopes that fluctuations in annual growth rings might chart the effect of sunspot cycles on climate."⁷⁰⁹ Ironically enough, given that Mount Graham became eligible in 2002 for listing on the National Register as "traditional cultural property" to Western Apache people, the original observatory dome on UA's campus was listed in 1986 on the National Register of Historic Places, at about the same time that the controversy heated up surrounding the selection of the mountain for astrophysical development.⁷¹⁰

Southern Arizona slowly became a hotbed for astronomy. In the late 1950s, the National Optical Astronomy Observatory (NOAO) came to the UA's campus. Jesuit astronomer Father George Coyne began working for UA during the 1960s and then joined the faculty at the UA in 1970. After becoming the director of both the Vatican Observatory and the Steward Observatory in the late 1970s, he pushed in 1981 to open a second center for the Vatican's astronomical research program and the Vatican Observatory came to UA. Led by Roger Angel, the Steward Observatory also opened its Mirror Lab in the early 1980s in order to create a new generation of telescope mirrors with a unique borosilicate "honeycomb" design.⁷¹¹ Steward Observatory built an addition

⁷⁰⁸ Steward Observatory, "Early History of Steward Observatory," http://www.as.arizona.edu/outreach/history_steward_observatory.html.

⁷⁰⁹ Eric Swedlund, "UA looks at restoring historic 1906 Douglass house," *The Arizona Daily Star* (Tucson), 29 Nov 2007; Pyne, "The Wildland/Science Interface," 5.

⁷¹⁰ Renée Schafer Horton, "85 years fail to dim Steward's vision: Monday lecture scans its 'Past, Present, Future,'" *Tucson Citizen*, 26 Apr 2008. See also, Kim A. McDonald, "Park-Service Plan for Observatories Upsets Scientists," *The Chronicle of Higher Education*, 4 Oct 1989.

⁷¹¹ "Next generation of telescopes is born on Arizona's mountains," *Lo Que Pasa* (University of Arizona), 13 Sep 1993; Steward Observatory Mirror Lab, University of Arizona, "Mirror Lab History (1980 to 2001)," <http://mirrorlab.as.arizona.edu/MISC.php?navi=histo>; Kim A. McDonald, "New Technology Used for Telescope Mirror," *The Chronicle of Higher Education*, 1 Apr 1992. See "Better Vision with Double Vision: New Telescope Technology Promises Astrophysics an Unprecedented View of the Universe," *Journal of the University of Notre Dame College of Science*, vol. 2, no. 1 (Summer 2005), 15.

to its offices on its Tucson campus.⁷¹² UA became “the Wall Street of Astronomy,” according to the assistant director of operations for the Steward Observatory, John Ratje. Installations in southern Arizona included Steward, NASA, UA’s Mirror Lab, Kitt Peak, Mount Hopkins, Mount Bigelow, Mount Lemmon, Flandrau, and radio telescopes.⁷¹³

Perhaps because of UA’s unfettered growth, Arizona Congressman Morris “Mo” Udall warned UA astronomers in 1973 at UA’s telescope dedication on Mount Hopkins that this was to be the university’s last peak. They had gobbled up enough land on mountaintops in Southern Arizona.⁷¹⁴ In spite of this warning, UA and its research partners pushed forward in the mid-1980s to place 18 telescopes, sprawling over 3,000 acres, on Mount Graham.⁷¹⁵ UA began site testing on the mountain in 1980. Enticed by Mount Graham’s dark skies with little light pollution from surrounding cities and its close proximity to Tucson, and backed by UA’s administration, UA astronomers moved forward with their plans. In 1983, UA received \$633,900 from the Arizona Board of Regents, before heading to the legislature in 1984 for additional funding to begin their project.⁷¹⁶ According to UA’s student newspaper, UA project scientist William Hoffman admitted in 1983 that “The Mount Lemmon site is still in the running, in case funding and public approval for the Mount Graham site does not come through.”⁷¹⁷ One hundred years into UA’s founding, it soon became embroiled in self-created controversy. Despite his pronouncements, Udall eventually allowed the committee he had chaired since 1977, the House Committee on Interior and Insular Affairs, to make the Mount Graham

⁷¹² Mark A. Gordon, *Recollections of “Tucson Operations”: The Millimeter-Wave Observatory of the National Radio Astronomy Observatory* (The Netherlands: Springer, 2005), 66.

⁷¹³ Bowden, “How the University Knocked Off Mount Graham,” 30; McNamee, “Mountain Under Heavens”; James E. Kloeppel, *Realm of the Long Eyes: A Brief History of Kitt Peak National Observatory* (San Diego: Univelt, Inc., 1983); Tom Beal, “Changes on way for S. Ariz. observatory,” *Arizona Daily Star* (Tucson), 13 Mar 2010.

⁷¹⁴ Bowden, “How the University Knocked Off Mount Graham,” 30; Evelyn Martin, “The Last Mountain—Mount Graham in Arizona,” *American Forests*, 99 (March-April 1993): 44-47; Tony Davis, “A Statesman Steps Off the Stage,” *High Country News*, vol. 31, no. 1 (18 Jan 1999); McNamee, “Mountain Under Heavens.”

⁷¹⁵ Bowden, “How the University Knocked Off Mount Graham,” 30.

⁷¹⁶ Paul Brinkley-Rogers, “Telescope sites focus on shrines,” *Arizona Republic* (Phoenix), 17 Nov 1985, B19.

⁷¹⁷ Denise E. Swibold, “Mount Graham preferred as site for radio telescope,” *Arizona Daily Wildcat* (University of Arizona), 28 Oct 1983, 1.

decision, in part, some people have suggested, because “he [sat] out the game” and because of person turmoil at that point in his life: his wife had committed suicide on August 13, 1988.⁷¹⁸

In November 1988, UA obtained an exemption of all U.S. cultural, religious, and environmental laws in order to build telescopes on Mount Graham in southeastern Arizona. Through a congressional rider that was attached to an appropriations bill, called the Arizona-Idaho Conservation Act, the U.S. government helped to set in motion the fate of a mountain and the people who have sought to protect it, for at least the following 20 years. Purchased for more than \$1 million, the Congressional exemption gave UA a foothold on an ecologically and spiritually unique place.⁷¹⁹ The rider was a precedent in non-wartime U.S. history and displays the on-going and ever present power of colonialism.⁷²⁰ Following a spoils-based system, astronomers promised a great amount from this new technology.⁷²¹ According to Walt Friauf, fire management officer for the Pinalenos from 1972 to 1989, “The astronomers would say, ‘Your town is gonna boom.

⁷¹⁸ Bowden, “How the University Knocked Off Mount Graham,” 28, 32.

⁷¹⁹ “Astronomers, Biologists Clash Over Observatory Plans,” *The Washington Post*, 8 Mar 1990, A8

⁷²⁰ The 1988 Arizona-Idaho bill was the first legislation involving an endangered species that was exempted from the National Environmental Protection Act. The snail darter case is extremely similar to the Mount Graham case; in 1979, Congress exempted the Tennessee Valley Authority’s Tellico Dam project on the Little Tennessee River from the Endangered Species Act. See O. D. Brodkey, “The Snail Darter v. the Tennessee Valley Authority: Is the Endangered Species Act Endangered?” *Kentucky Law Journal*, vol. 66, no. 2 (1977): 363-404; Zygmunt J. B. Plater, “Reflected in a River: Agency Accountability and the TVA-Tellico Dam Case,” *Tennessee Law Review*, vol. 49, no. 4 (Summer 1982): 747-787; Zygmunt J. B. Plater, “In the Wake of the Snail Darter: An Environmental Law Paradigm and its Consequences,” *University of Michigan Journal of Law Reform*, vol. 19 (Summer 1986), 805-862; Zygmunt J. B. Plater, “Endangered Species Act Lessons Over 30 Years and the Legacy of the Snail Darter, a Small Fish in a Pork Barrel,” *Environmental Law*, vol. 34, no. 2 (Spring 2004), 289-308; Kenneth M. Murchison, *The Snail Darter Case: TVA versus the Endangered Species Act* (Lawrence: University of Kansas, 2007); William Bruce Wheeler and Michael J. McDonald, *TVA and the Tellico Dam, 1936-1979: A Bureaucratic Crisis in Post-Industrial America* (Knoxville: The University of Tennessee Press, 1986); Peter Matthiessen, “Lost Eloheh Land,” *Indian Country* (New York: Penguin, 1992), 103-126; Peter Nabokov, “Between River and Fire—*Cherokee*,” *Where the Lightning Strikes: The Lives of American Indian Sacred Places* (New York: Viking, 2006), 1, 52-69, and xvi. Thanks to Robert Gilmer for some of the above references. See his forthcoming University of Minnesota PhD dissertation, as well as Robert Gilmer to author, email, 30 Sep 2009. For more on the comparisons between Mount Graham and the Tellico Dam, see “Congress End-Runs Endangered Species Act in Arizona, Called Worst Threat Since Tellico Dam,” *Land Letter: The Newsletter for Natural Resource Professionals*, vol. 7, no. 20 (1 Nov 1988).

⁷²¹ W. Patrick McCray, *Giant Telescopes: Astronomical Ambition and the Promise of Technology* (Cambridge: Harvard University Press, 2004).

We're gonna have astronomers filling hotels in Safford. They were going to build Discovery Park. It's gonna be the biggest thing since peanut butter.” But none of these promises came to pass. Although some concrete companies prospered from the construction of the telescopes, the motels did not get filled. Eastern Arizona College eventually took over Discovery Park for use by its students, but it is not a huge attraction.⁷²²

Several Forest Service personnel were not pleased by the proposed astrophysical development. But the Congressional exemption rankled a number of people. Safford District Forest Ranger Cecil Sims retired in 1989 in part because he was “Too damn tired of it.” The effects of the process and UA’s politics in 1988 left “A real bad taste for a lot of people,” according to Friauf. “It’s gonna happen no matter what we do. It left a real bad taste.”⁷²³ According to Tom Waddell, AGFD game warden for the Pinaleno Mountains at the time:

[UA] basically told the following lies over and over until they became truth. I knew the truth because I was on Mt. Graham since 1966 and was intimately involved with highest elevations as I had a bear marking project there. I was also the person [who] found the Mt. Graham red squirrel after they had been declared extinct for 10 years.

Lie number one was that the top of the mountain had been logged and that they saved it from additional logging.

Lie number 2 was that they saved the top of the mountain from excessive public use by restricting access.

⁷²² Walt Friauf to author, personal communication, 20 Aug 2009; Discovery Park Campus, Eastern Arizona College, <http://www.eac.edu/DISCOVERYPARK>; Tim Dana, “Discovery Park opens on weekends: Opens Fridays and Saturdays 6 to 10 p.m.,” *Eastern Arizona Courier* (Safford, AZ), 5 Jun 2002; Stuart Alan Becker, “Fire Danger closes Mount Graham: First time in 26 years,” *Eastern Arizona Courier* (Safford, AZ), 29 May 2002, 1A, 18A. While Mount Graham was open to UA astronomers, astrotourism, and construction, the mountain was closed to all other U.S. citizens. UA operates above and outside the law, as always. See The Graham County Chamber of Commerce, “Tour the Mount Graham International Observatory,” www.discoverypark.com/obstour.html, accessed 21 Jul 2002; Stuart Alan Becker, “Mount Graham re-opens,” *Eastern Arizona Courier* (Safford, AZ), vol. 114, no. 30, 24 Jul 2002. See the film by Stéphane Goël, dir., *Le Garçon S'Appelait Apache* (This Boy’s Name was Apache) (Climage and Ardèche Images Production, 1995). For the copious amount of government biologists and wildlife managers who discussed UA’s lack of ethics, the promises it failed to keep, its “deception,” and “less than honest” attitude in all of its dealings with the Forest Service, Fish and Wildlife Service, and other organizations, see *Robin D. Silver v. Charles A. Bowsher*, “Plaintiff’s Memorandum of Points and Authorities in Opposition to Defendant’s Motion to Dismiss,” C.A. No. CIV 91 205 TUC ACM, 30 Aug 1991.

⁷²³ Friauf to author, 20 Aug 2009.

The reason they had the power to go forward was that they presented a 3500 acre multi scope and building project to the [Arizona] legislature, before they had any biological data, who awarded them \$500K seed money to start it. It is at this point the people of the State were firmly “on the hook” and could never turn back regardless of any biological findings.⁷²⁴

A few months after the Congressional exemption, in an essay for the short-lived Tucson publication, *City Weekly*, environmental writer Charles Bowden penned the definitive Washington story of the UA’s 12 week lobbying blitz. Bowden stated that UA “saw itself as an institution of higher learning and astronomy as a field that expanded human horizons and that was basically beyond reproach—a view shared by many educated Americans.”⁷²⁵ Bowden noted how some Congressional staffers felt that UA had acted with similar disregard for the environment as any oil or mining company that wanted access to public lands. UA hired a well-connected, expensive law firm to lobby Congress by early 1988, and spent at least \$1 million, according to several insiders, to secure a site on Mount Graham.⁷²⁶ “It is important in understanding the fight for Mt. Graham to get past the pieties of science and see it for what it clearly was: a fight to death by a business [UA],” wrote Bowden. To pass the bill, UA President Henry Koffler told Udall that UA’s efforts to control the top of Mount Graham was “not scientific, it’s just political.”⁷²⁷

Although environmentalists to an extent were not as well connected, they were feared by UA. “By late September the House Interior Committee was getting buried with letters and phone calls (the letters running 60/40 against the scopes, the calls 100 percent against),” according to Mark Trautwein, one of Udall’s people who served on the Interior Committee for almost a decade. Trautwein had “never seen such an outpouring, nor such emotion.... He even had some UA astronomers calling to express their concerns about

⁷²⁴ Tom Waddell to author, email, 21 January 2008. See Waddell’s comments to a reporter from *The Washington Post*: “Astronomers, Biologists Clash Over Observatory Plans,” A8. Regarding some of the money UA “snookered” from the State of Arizona, see U.S. General Accounting Office, Investigation Record of Interview, John Turner, Pete James, Kathleen Milne, and John Briscoe, 19 Apr 1990.

⁷²⁵ Bowden, “How the University Knocked Off Mount Graham,” 31.

⁷²⁶ “Astronomers, Biologists Clash Over Observatory Plans,” A8; McNamee, “Mountain Under Heavens”; Bowden, “How the University Knocked Off Mount Graham.”

⁷²⁷ Bowden, “How the University Knocked Off Mount Graham,” 31.

the way the UA was taking the mountain, how the tactics might breed ill feeling against astronomy in Southern Arizona for years to come.”⁷²⁸ The environmentalists tried, but the 1988 Biological Opinion, written by the U.S. Fish and Wildlife Service with one option to build three telescopes on Emerald Peak, and with the possibility of four additional telescopes at a later date, made the UA’s only hope clear: take the three scopes now and work to protect the squirrel, or risk losing investors and the prestige associated with running an internationally recognized astrophysics program. Just before voting “yes” to the legislation in the House, Udall expressed his guilt. “It is hard . . . to think of any recent environmental issue in Arizona that has stirred more genuine emotion and heated controversy than this one. . . . This has been unusually difficult for me. . . . To short circuit the process Congress has established by law . . . is something I do not regard warmly,” said Udall.⁷²⁹ In spite of lobbying from environmentalists and the rule of law, UA obtained what it wanted.

Opponents did not conceal their anger. Many people were outspoken in their criticisms of UA’s actions and bemoaned the loss of access the top of the mountain because of the Congressional exemption. One opponent of the telescope project simply stated, “It’s a ripoff of the public lands by an elite group of astronomers” He further said that UA “Bypassed the public, bypassed ESA, cut off recreational use.” He stated, “This place belongs to all of us, not just an elite group of astronomers. . . . This is one science that is greed-driven.”⁷³⁰ The Mount Graham red squirrel was a “straw man” for a larger issue. According to Bowden, a close friend of radical environmental writer Edward Abbey, “What the fight was about was simply ownership of the mountain, and once the focus shifted to the tiny squirrel, there was always a way to include it in hypothetical plans or ridicule its importance in the press.” As John Kelly, an aid to Republican Representative Jim Kolbe, stated, “We understood all along that the issue was not the red squirrel but the mountain.”⁷³¹ Yet according to one writer, “Top University of Arizona administrators and astronomers celebrated this legislative end run by throwing a party,

⁷²⁸ Bowden, “How the University Knocked Off Mount Graham,” 34.

⁷²⁹ Bowden, “How the University Knocked Off Mount Graham,” 31.

⁷³⁰ Bowden, “How the University Knocked Off Mount Graham,” 32.

⁷³¹ Bowden, “How the University Knocked Off Mount Graham,” 36.

the centerpiece of which was a papier-mâché piñata in the shape of a Mount Graham red squirrel.⁷³²

The Idaho-Arizona Conservation Act was signed by lame duck President Ronald Reagan on November 18, 1988. The act ordered the secretary of agriculture to issue a special use permit for the construction of three of possibly seven telescopes on Mount Graham. The permit was issued on April 7, 1989. This legislation quickly enabled the UA to fight in court and in the press against Apaches, environmentalists, anthropologists, and biologists. It gave UA, in the words of retired anesthesiologist and Maricopa Audubon Society member, Bob Witzeman, a “beachhead” on Mount Graham that enabled them to do whatever it wanted to the forest, the squirrel, the mountain, and Western Apache people, with impunity.⁷³³

The Apaches opposed the telescopes before the first tree was cut to build an access road to summit telescope sites, but the U.S. Court of Appeals in San Francisco later said Apaches waited too long. In October 1989, in fact, several Apache elders came forward to oppose the astrophysical development on Mount Graham, but UA ignored several newspaper appeals. One Apache woman, Ola Cassadore Davis, led the way. Her brother, an Apache spiritual leader, lecturer, radio host, and singer named Philip Cassadore told of the sacredness of Mount Graham during the 1960s, 1970s, and 1980s.⁷³⁴ Cassadore Davis contacted Michael D’Amico of Earth First! to see how she could voice her opposition. “The medicine men sing about that mountain when they pray, generation to generation, all the way down through the years,” stated Cassadore Davis.

⁷³² McNamee, “Mountain Under Heavens.” See also, Bowden, “How the University Knocked Off Mount Graham”; Robert A. Williams, “Large Binocular Telescopes, Red Squirrel Piñatas, and Apache Sacred Mountains: Decolonizing Environmental Law in a Multicultural World,” *West Virginia Law Review*, vol. 96, 1994, 1133-1164.

⁷³³ Dougherty, “Star Whores.”

⁷³⁴ Paul Brinkley-Rogers, “Apache past he helped save lives in medicine man’s funeral,” *The Arizona Daily Star* (Tucson), 2 Sep 1985, A5; “1,000 mourn death of Apache leader,” *The Arizona Republic* (Phoenix), 2 Sep 1985; David L. Epele, “On the Desert: Apache Medicine Man’s Ten Commandments are Timeless,” *The Arizona Territorial*, 28 Apr 1992, 21. See also the music, as well a biography of Philip Cassadore, on the insert to the following: “Apache: Traditional Apache Songs,” Canyon Records Vintage Collection, vol. 5 (Phoenix: Canyon Records, 1998), compact disk, CR-6053.

“They say there is holy water on top of that mountain, and sacred herbs and a burial site,” she continued. “To us Apache, it is a very sacred place.”⁷³⁵

UA astronomers and administrators denied Apache claims. UA’s project director Ratje stated, according to reporter Dan Huff, that “19 Indian groups were notified of the project in 1986.” Ratje said, “To my knowledge only the Pueblo Zuni responded.”⁷³⁶ Ratje was referring to a “consultation” letter supposedly sent by UA through ordinary mail on August 12, 1985, as notification to the San Carlos Apache regarding development on Mount Graham. UA administrators continually claimed that their efforts to inform the various tribes of the proposed development were enough.⁷³⁷ There is no proof that the letter was received. Furthermore, there was no follow up, no consultation, no consent, and no interviews with medicine people or elders, a violation of US cultural and historic protection laws.⁷³⁸ The San Carlos Apache Tribe had anticipated that they would be notified by any number of federal and state agencies, including UA, a large state academic institution, regarding this project’s development, but they were wrong. “Native opposition to the Mount Graham telescope project did not coalesce immediately because the Indian people with a direct interest in the site were not adequately notified,” wrote Jack Trope, the director of the Association on American Indian Affairs.⁷³⁹

⁷³⁵ Norma Cole, “Apache may seek halt on Graham,” *Tucson Citizen*, 4 Oct 1989.

⁷³⁶ Dan Huff, “Apache elders asking UA to halt Mt. Graham project,” *Arizona Daily Star*, 4 Oct 1989. The Zuni Tribe sent delegations to Mount Graham to protect shrines uncovered during archaeological investigations in the 1980s. See Brinkley-Rogers, “Telescope sites focus on shrines,” B19; Douglas Kreutz, “Two Indian shrines on peak closed,” *Tucson Citizen*, 12 Sep 1986, 1C, 2C; Jim Erickson, “Indian shrines closed to public: Ancient sites on Mount Graham disturbed twice in five months,” *The Arizona Daily Star* (Tucson), 13 Sep 1986; Gene Varn, “‘Damaged’ Indian ruins are sealed: Government accused of minimizing problem,” *The Arizona Republic* (Phoenix), 13 Sep 1986; Douglas Kreutz, “Mount Graham shrines are OK, foresters say,” *Tucson Citizen*, 2 October 1986, 1D, 4D; Enric Volante, “Zunis want excavation of Indian shrines near proposed Mt. Graham observatory,” *The Arizona Daily Star* (Tucson), 15 Oct 1986; Enric Volante, “Zunis, UA discuss scopes, agree o preserve shrines,” *The Arizona Daily Star* (Tucson), 23 Apr 1989, 1B, 2B. For the best summary of shrines on Mount Graham, see Giovanni B. A. M. Panza, “The Impaling of Apache Holy Ground: No Conflict Resolution on Mt. Graham” (master’s thesis, Prescott College, Arizona, 1997), 8-11.

⁷³⁷ Kim A. McDonald, “Construction of Observatory on Mount Graham Would Violate Sacred Site, Indian Tribes Say,” *The Chronicle of Higher Education*, 17 Jul 1991, A5, A9.

⁷³⁸ John R. Welch, “A *dzil ncha si’an* Chronology” (updated 20 Jan 2008, photocopy), 12.

⁷³⁹ Jack F. Trope, “Existing Federal Law and the Protection of Sacred Sites: Possibilities and Limitations,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), 19, no. 4 (Winter 1996).

In early 1987, Paul C. Pierce, a Tucson businessman and Director of the Coalition for the Preservation of Mount Graham, wrote to the Coronado National Forest regarding the draft Environmental Impact Statement. He pointed out the sacredness of the mountain and its present-day use by Apaches of the mountain: “We have since identified a group of San Carlos Apache people who are still using the high peaks of the Pinalenos for religious reasons. Evidently this religious use of the mountain is contemporary and has been happening over the last few hundred years,” a comment that is supported by ethnohistorical records from approximately 1910 to 1940. Pierce stated that Mount Graham is sacred to members of the San Carlos Apache tribe and was still being used for religious rites. “The proposed development is viewed as potentially damaging to the Apache religion and the ceremonies that take place,” argued Pierce. He urged that the USFS should address the potentially damaging impacts of astrophysical development.⁷⁴⁰ Soon afterwards, Apaches submitted evidence of Mount Graham’s sacredness to USFS in comments on the Draft EIS. UA and USFS officials “failed to study or otherwise take into consideration the effects of the proposed observatory on Apache society and culture, ignoring aspects of the National Environmental Policy Act (NEPA), American Indian Religious Freedom Act (AIRFA), and the National Historic Preservation Act (NHPA).”⁷⁴¹ This was not the first time that UA and government officials failed to look into Apache concerns regarding astrophysical development.

In December 1989, almost one year before UA/Vatican/Max Planck felled trees on the summit and almost two years before concrete was poured for the Vatican’s telescope, the San Carlos Apache tribal council announced its intent to oppose astrophysical development on Mount Graham. On December 14, 1989, the tribal council bluntly told UA administrators that the telescopes were a desecration and demanded that UA leave the mountain. In correspondence copied to numerous UA officials, it was clear that Mount Graham was sacred and that the UA should go elsewhere. In a letter from Gordon Krutz, a coordinator of UA’s Office of Indian Programs, to San Carlos Apache tribal chairman, Buck Kitcheyan, UA noted that Apaches wanted “more information ...

⁷⁴⁰ Paul C. Pierce to Coronado National Forest, letter, 19 Jan 1987.

⁷⁴¹ Welch, “*A dzil nchaa si’an* Chronology,” 7.

before making a decision to support a resolution to oppose construction.”⁷⁴² In February 1990, SCAT voted unanimously to support the work of Cassadore Davis.⁷⁴³ Three months before summit deforestation, in July 1990, the SCAT passed a unanimous resolution against the telescopes which stated that the project is “a display of profound disrespect for a cherished feature of the Apache’s original homeland as well as a serious violation of Apache traditional religious beliefs.”⁷⁴⁴ But the chronology of opposition never played out in favor of SCAT, Apache opposition organizations, or individual Apache people.⁷⁴⁵ UA and courts would first deal with the environmental opposition to astrophysical development.

The Sierra Club Legal Defense Fund and advocacy groups filed an anti-observatory lawsuit in federal court in July 1989 to permanently halt observatory construction.⁷⁴⁶ In the lawsuit, attorneys claimed that the project threatened to extirpate the endangered Mount Graham red squirrel. In response, UA astronomer Angel exclaimed, “As a scientist, I’m absolutely horrified at the way I see science being used by the environmentalists.... This is not a dam. It’s not a mine. It’s a project to build the world’s biggest telescope. Among human endeavors this kind of study of the universe has an incredible history.”⁷⁴⁷ Despite pending legal proceedings, astronomer Strittmatter voiced his concerns regarding environmentalists whom he called “extremist elements,” but was quick to reiterate to European partners that Mount Graham was the “best possible site.”⁷⁴⁸

⁷⁴² See Gordon V. Krutz to Buck Kitcheyan, letter, 27 Dec 1989.

⁷⁴³ San Carlos Apache Tribe, “Resolution No. 90-18,” San Carlos Indian Reservation, San Carlos, Arizona, 6 Feb 1990.

⁷⁴⁴ San Carlos Apache Tribe, “Resolution No. 90-68,” San Carlos Indian Reservation, San Carlos, Arizona, 10 Jul 1990.

⁷⁴⁵ Sandra Rambler, “Court got it backwards; it was government that ignored Apache,” opinion, *The Arizona Republic* (Phoenix), 17 May 1994; Apache Survival Coalition, Apaches for Cultural Preservation, Mt. Graham Coalition, “Chronology of the U. of Arizona, Vatican, German, Italian War on Apache Religious Beliefs,” Apr 1996.

⁷⁴⁶ “Should observatory be built; Some Apaches say ‘no,’” *San Carlos Apache Moccasin* (Globe, AZ), 12 Dec 1989.

⁷⁴⁷ “Astronomers, Biologists Clash Over Observatory Plans,” A8.

⁷⁴⁸ Mario R. Dederichs, “Sterngucker gegen Eichhörnchen” (“Stargazers versus Squirrels”), *Stern* (Hamburg, Germany), no. 49, 30 Nov 1989, 234-236.

In late 1989, astronomers from German-based Max Planck Institute were getting cold feet and expressed their concerns. Apparently, the pending legal troubles were upsetting to the Germans.⁷⁴⁹ “The University of Arizona underestimated the gravity of [environmental] concerns,” stated Max Planck director and astronomer Peter Mezger. “If somebody would offer us a better site, we would certainly reconsider this thing,” commented Mezger. Although he wanted the world’s best observatory site, Hawaii’s Mauna Kea, “this is much too expensive for us.” His decision to pursue Mount Graham was made easier by the fact that the U.S. waived \$400,000 in customs duties for importing Max Planck’s German-made telescope.⁷⁵⁰

Max Planck astronomers need not have worried about the project’s legal problems. The case landed in the court of U.S. District Judge Alfredo C. Marquez, a graduate, financial contributor since 1972, and longtime friend of UA who received free tickets to UA football games. In March 1990, Marquez asked UA’s attorney, David Todd, of the law firm Patton, Boggs, and Blow, the same lobbying group that obtained UA’s exemption, “If the project is having the effect of making the species totally extinct ... you are saying Congress has said to go ahead with this project?”⁷⁵¹ Todd responded that “If it ... was going to kill every squirrel ... [nothing] could be done about it.”⁷⁵² In response to court depositions of governmental biologists Lesley Fitzpatrick and Sam Spiller, and after hearing arguments on from UA, the Justice Department, and the Sierra Club, Marquez ordered a 120-day injunction against the project.⁷⁵³

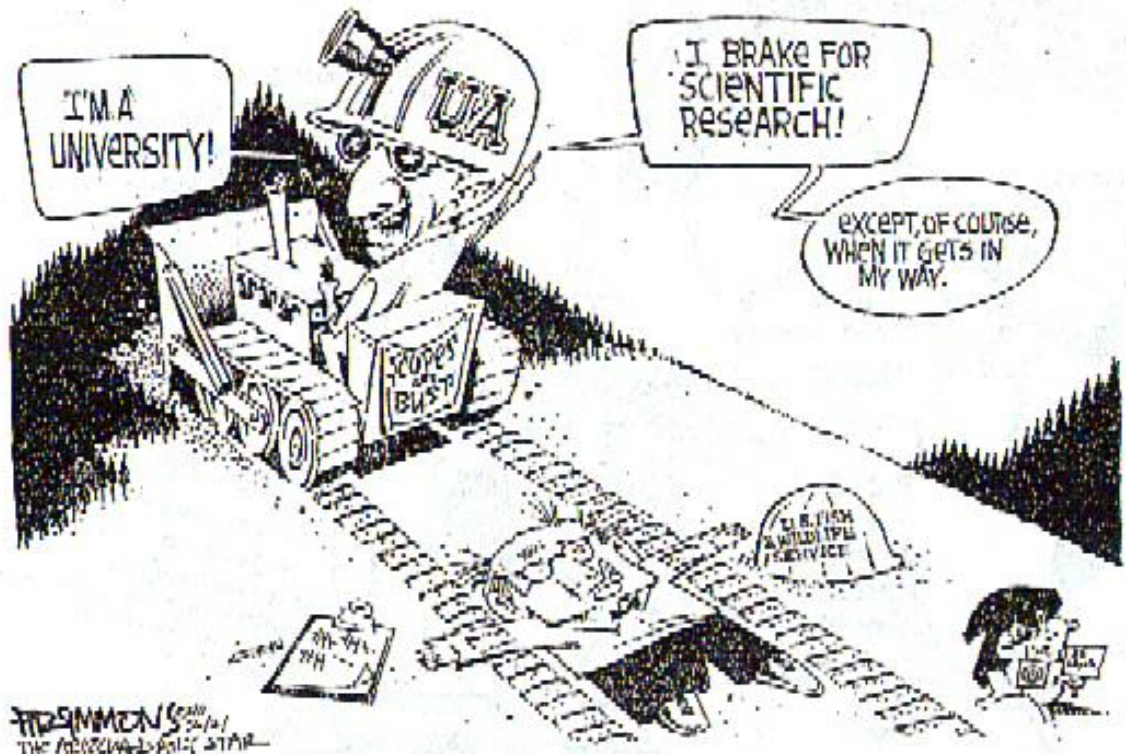
⁷⁴⁹ Kim A. McDonald, “2 Institutions May Pull Out of Ariz. Observatory: They are irked by delays as fight over red squirrels goes on,” *The Chronicle of Higher Education*, 11 Jul 1990.

⁷⁵⁰ Dederichs, “Stargazers vs. Squirrels”; James Achenbach, “University of Arizona squirrely concerning fate of Mount Graham,” *Tempe, Mesa, Chandler Tribunes*, 12 Feb 1990.

⁷⁵¹ Evelyn Horne and Roger Beatty, “Mount Graham Desecration Continues: Judge Rules Against Apaches,” *Earth First! Journal* (Tucson), vol. 21, no. 6 (Litha 2001). Regarding Marquez’s conflicts of interest, see *Robin D. Silver v. Charles A. Bowsher*, “Motion to Reconsider Transfer of Judicial Assignment,” C.A. No. CIV 91 0367 PHX RCB, 19 Apr 1991, 3.

⁷⁵² Negri, “Judge OKs 4-month work ban on Mount Graham telescopes,” A6.

⁷⁵³ Negri, “Judge OKs 4-month work ban on Mount Graham telescopes”; Associated Press, “Squirrels delay project,” *Chicago Tribune*, 28 May 1990, C3; “Ring of Truth,” editorial, *The Arizona Daily Star* (Tucson), 30 Mar 1990; Kim A. McDonald, “Judge Bars U. of Arizona From Building Telescopes, Citing Harm to Red Squirrels’ Habitat on Mount Graham,” *The Chronicle of Higher Education*, 4 Apr 1990.



“I’m a University! I brake for scientific research! Except of course when it gets in my way.”⁷⁵⁴

In August 1990, one month after refusing to protect the Northern spotted owl (the raptor that Sierra Club later sought to defend after years working on Mount Graham), the Bush administration’s Interior Secretary, Manuel Lujan, Jr., declared the Congressional rider exempted UA from any ESA squirrel studies.⁷⁵⁵ This pronouncement shocked many opponents to the astrophysical project, given that no Congressional member associated with the legislation intended to have the rider weaken the ESA. However, the Bush administration’s attempts to weaken the ESA and to use the squirrel for those ends were repeated by Lujan—the nation’s top official for protecting endangered species—who stated, “Nobody’s told me the difference between a red squirrel, a black one, or a brown

⁷⁵⁴ *The Arizona Daily Star* (Tucson), 21 Feb 1990. The UA runs over the U.S. Fish & Wildlife Service biologist, while the Mount Graham red squirrel holds a gun to his head and a sign that states, “So long.” See Mt. Graham Coalition, “Living Land, Sacred Land (The case against the Mt. Graham observatory),” lobbying packet, n.d., 261.

⁷⁵⁵ Terry Atlas, “Owls spotlight tough economic choices,” *Chicago Tribune*, 1 Jul 1990, C5.

one. Do we have to save every subspecies?"⁷⁵⁶ (Ironically enough, his efforts to strip bare the ESA were made again more than a decade later by Congressmen Rick Renzi and Richard Pombo, who took up the Lujan's mantle and also used Mount Graham and its squirrel for the same means.⁷⁵⁷) Justice Department attorney Richard B. Stewart enforced the administration's prejudice against the ESA.⁷⁵⁸ Judge Marquez eventually ruled in favor of his alma mater by doing nearly nothing.⁷⁵⁹ A seesaw battle ensued in which, at different times, both sides claimed victories.⁷⁶⁰ The 9th Circuit Court of Appeals lifted Marquez's freeze and construction resumed.⁷⁶¹ The environmental groups appealed the decision. Soon after, Vatican astronomers voiced their concerns regarding telescope delays and stated that they would begin looking at other sites that were "very viable and

⁷⁵⁶ Terry Atlas, "Interior Chief: Weaken Endangered-Species Law," *Chicago Tribune*, 12 May 1990, C1; Associated Press, "Arizona squirrel colony loses out to observatory," *Chicago Tribune*, 17 May 1990, C18; "Questions for the prevailing species," editorial, *Chicago Tribune*, 20 May 1990, C2; James Coates, "Endangered squirrels losing Arizona fight," *Chicago Tribune*, 18 Jun 1990, C4; Coalition to Save Mt. Graham, "Save a National Biological Treasure: Mount Graham Scandal: A Story of Political Deceit and Environmental Lawbreaking," brochure, Dec 1990, 4. See Wayne Dinelli, "Squirrel sighting," letter to editor, *Chicago Tribune*, 24 May 1990, C22.

⁷⁵⁷ Alysa Phillips, "Renzi sees Mt. Graham, Phelps Dodge," *The Eastern Arizona Courier* (Safford), 11 Dec 2002; Robin Silver to author, emails, 20 Aug 2004; David Hodges to author, emails, 20 Aug 2004; John Welch to author, emails, 20-21 Aug 2004; Guy Lopez to author, emails, 21 Aug 2004; Greg Jones, "Renzi to bring Washington to Safford," *Eastern Arizona Courier* (Safford), 18 Aug 2004; Eastern Arizona College, "EAC hosts congressional hearing on the Endangered Species Act," *Alumni Association Newsletter*, vol. 20, no. 1 (Fall 2004), 2; Mitch Tobin, "Enviros outnumbered at hearing on act: 500 watch GOP congressmen hear testimony," *Arizona Daily Star* (Tucson), 21 Sep 2004; Greg Jones, "Washington comes to Gila Valley," *Eastern Arizona Courier* (Safford), 22 Sep 2004; Felicity Barringer, "Endangered Species Act Faces Broad New Challenges," *The New York Times*, 26 Jun 2005, 20.

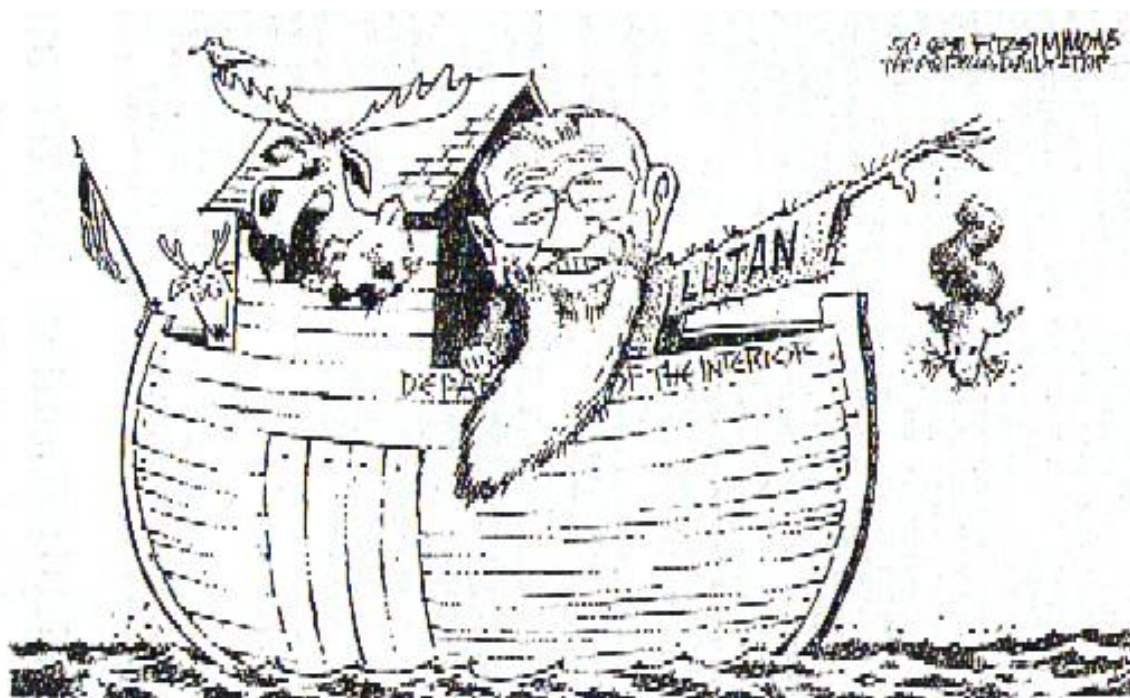
⁷⁵⁸ See *Silver v. Bowsher*, "Plaintiff's Memorandum of Points and Authorities in Opposition to Defendant's Motion to Dismiss," 67-77; Associated Press, "U.S.: Observatory won't hurt squirrel," *Chicago Tribune*, 24 Aug 1990, C4.

⁷⁵⁹ See *Silver v. Bowsher*, "Motion to Reconsider Transfer of Judicial Assignment," 4. See Associated Press, "Observatory foes lose a round: Judge won't delay work near Arizona habitat of squirrels," *Chicago Tribune*, 25 Aug 1990, C2; Associated Press, "Observatory project near squirrel habitat resumes," *Chicago Tribune*, 31 Aug 1990, C12; Ellen Potischman, "Greed wins," letter to editor, *Chicago Tribune*, 24 May 1990, C26.

⁷⁶⁰ Kim A. McDonald, "Appeals Court Extends Ban on Construction of Telescopes at Mount Graham," *The Chronicle of Higher Education*, 26 Sep 1990.

⁷⁶¹ Kim A. McDonald, "Court Allows U. of Arizona to Build Telescopes on Mt. Graham," *The Chronicle of Higher Education*, 23 May 1990; Associated Press, "Arizona squirrel colony loses out to observatory"; Associated Press, "Telescope construction cleared over objections," *The New York Times*, 25 Aug 1990; Kim A. McDonald, "U. of Arizona Gets Go-Ahead to Build Its Telescope on Mt. Graham as Agencies Rule Out More Study," *The Chronicle of Higher Education*, 5 Sep 1990.

they're in Arizona.”⁷⁶² At least two UA partners were expressing their concerns about the project.⁷⁶³



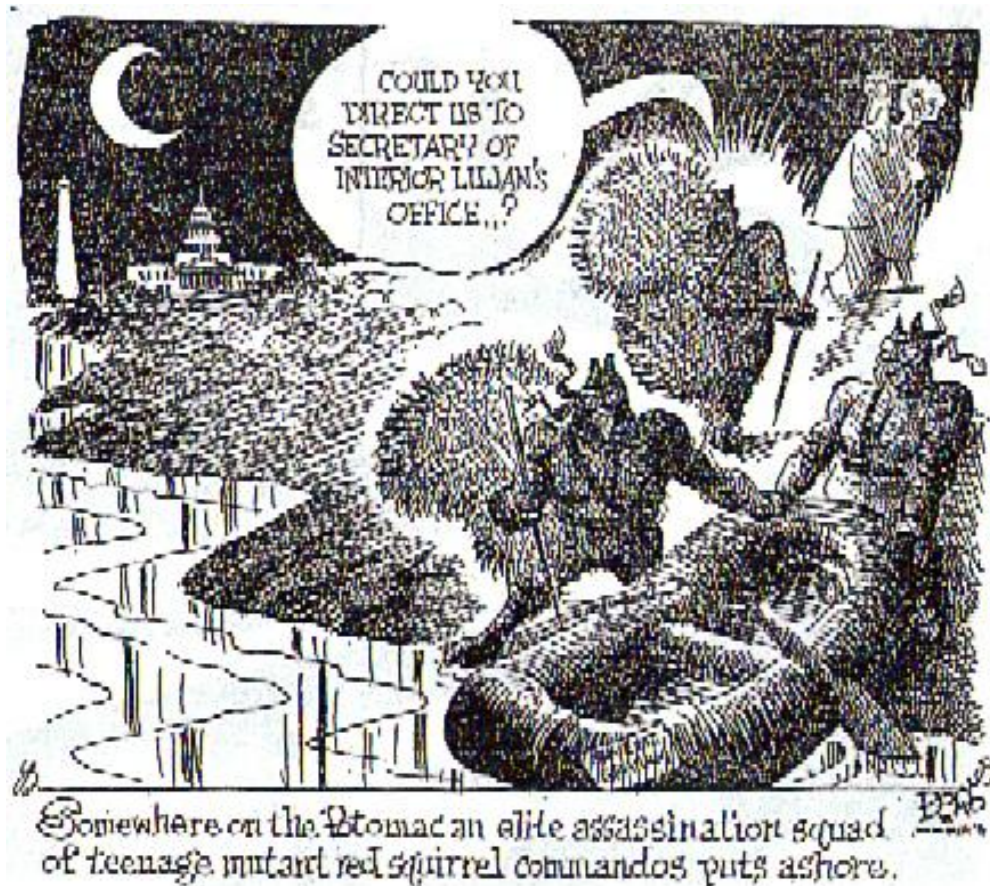
RED SQUIRRELS, BLACK SQUIRRELS, BROWN SQUIRRELS... I CAN'T TELL THE DIFFERENCE... DO WE HAVE TO SAVE EVERY SUBSPECIES?

“Red squirrels, black squirrels, brown squirrels... I can’t tell the difference ... Do we have to save every species?”⁷⁶⁴

⁷⁶² Nancy Wiechec, “Vatican opposes scope delay,” *The Catholic Sun* (Phoenix), 5 Jul 1990: 5. See *The Catholic Sun* (Phoenix), 25 May 1992; Anita MacFarlane, Jim Breck, and Sharon Galbreath, “The Battle Intensifies—Mt. Graham Can Be Saved,” letter, Oct 1994, 4.

⁷⁶³ McDonald, “2 Institutions May Pull Out of Ariz. Observatory.”

⁷⁶⁴ *The Arizona Daily Star* (Tucson), 13 May 1990. See Mt. Graham Coalition, “Living Land, Sacred Land,” 250.



“Somewhere on the Potomac an elite assassination squad of teenage mutant red squirrel commandos puts ashore”: “Could you direct us to Secretary of Interior Lujan’s Office ..?”⁷⁶⁵

By 1990, some journalists were calling the Mount Graham telescope project “the most controversial science project in Arizona history.”⁷⁶⁶ Despite winning in court, UA astronomers continued to criticize environmentalists and government biologists who did not agree with their plans. Angel stated, “So much of the opponent’s scientific argument is so clearly fake, we wonder what the real issue is.... Scientists must stand up for integrity and truth regardless of cost.”⁷⁶⁷ He singled out USFWS biologist Fitzpatrick

⁷⁶⁵ *The Phoenix Gazette*, 15 May 1990; Mt. Graham Coalition, “Living Land, Sacred Land,” 260.

⁷⁶⁶ “Snow will soon halt construction: Observatory controversy still rages on,” *Eastern Arizona Courier* (Safford), 7 Nov 1990.

⁷⁶⁷ “Snow will soon halt construction.”

because she had opposed the project from the beginning.⁷⁶⁸ He argued again that Mount Graham was a superior place for astronomy, but only one of three of his examples cited scientific criteria. According to the *Eastern Arizona Courier*, “Mount Graham emerged as the best because it: Has superior altitude and clear weather conditions. Is near the UA, a well-established home of first-rate astronomy research. Has already been developed with a paved road leading right to the site.” In spite of the fact that the third comment was not true and the validity of the first observation was debatable, as the general public would soon learn, two of the arguments were not based on science. In fact, reported the newspaper, “A paved road up Mount Graham, Angel said, attracted the UA from the outset in 1980”—further proof to Apaches and environmentalists that the site was selected not based on science but because of convenience of the location.⁷⁶⁹ Such comments made it clear that the road built in the 1930s that attracted local residents also attracted astronomers nearly sixty years later.

In hearings before a three-person panel of the 9th U.S. Circuit Court of Appeals in December 1990, Todd again defended UA’s actions. When Judge Stephen Reinhardt remarked to Todd, “And your position is basically that what Congress was saying is we want you to build the three telescopes, build those without regard to any laws, we’ve made the decision, everything else is taken care of,” Todd replied, “That’s correct your Honor.... Delay the other four, they’re subject to normal environmental laws.... The amendment preserves NEPA and the Endangered Species Act processes only for the remaining four scopes.”⁷⁷⁰ Todd told Reinhardt, “The whole purpose [of the rider] was to bring this process to an end.” Allowing a new study of the MGRS, according to Todd, “makes no sense and reduces what Congress did to a nullity.”⁷⁷¹ Todd also told Reinhardt, “The 1988 law that authorized construction of the first three telescopes ‘carved out an exemption from generally applicable environmental statutes.’” Indeed, “Congress felt this project was significant enough to merit exemption from applicable

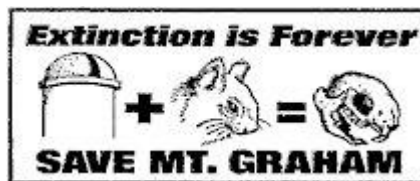
⁷⁶⁸ See David Hoye, “Incomplete studies threaten observatory: Permit linked to better data on squirrel,” *The Phoenix Gazette*, 21 Nov 1991, B1.

⁷⁶⁹ “Snow will soon halt construction.”

⁷⁷⁰ 13 Dec 1990.

⁷⁷¹ Jim Erickson, “Federal panel hears scope arguments,” *Arizona Daily Star* (Tucson), 14 Dec 1990.

environmental statutes,” stated Todd regarding the sidestepping of NEPA and ESA.⁷⁷² The authors of an editorial in *The Arizona Daily Star* noted that, “UA’s attorney tells the court the intent of the approval of immediate construction of three telescopes was not to just undermine the Endangered Species Act, but to obliterate it.”⁷⁷³ Sierra Club Legal Defense Fund attorney Mark Hughes stated that the actions of UA, Udall, and Congress, as well as the court decision, could lead to “the first mammalian extinction in the United States since passage of the Endangered Species Act.”⁷⁷⁴



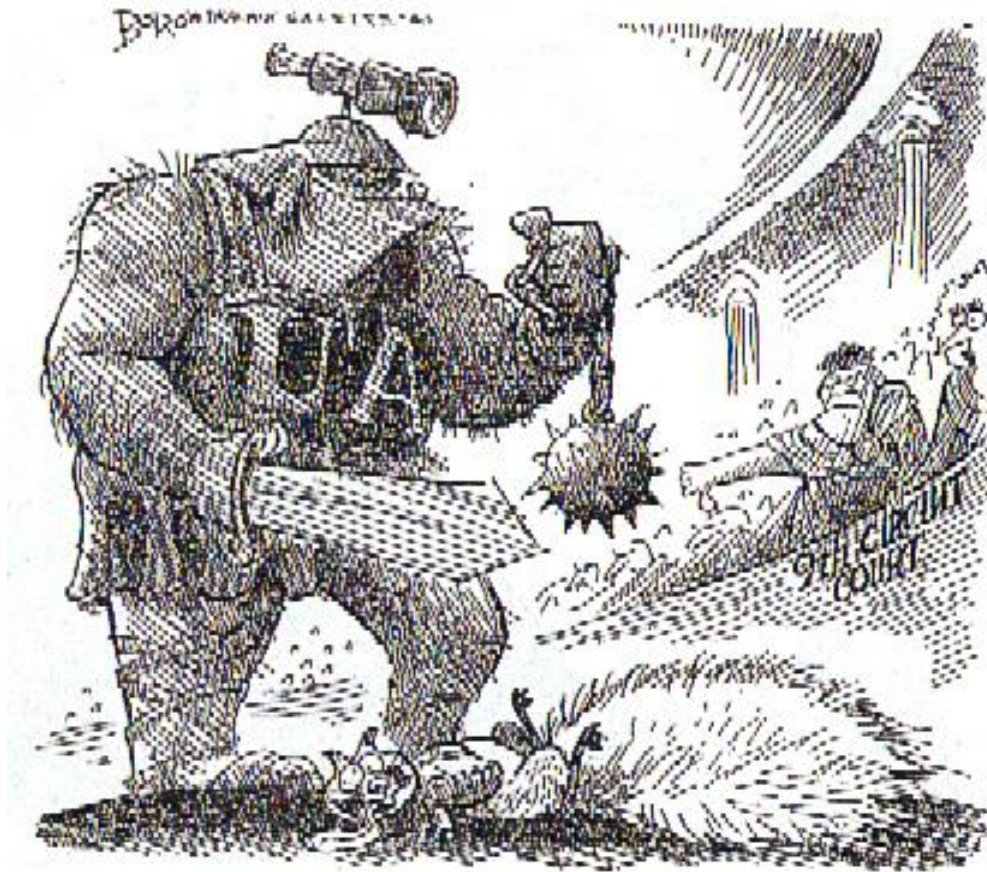
“Extinction is Forever: Save Mt. Graham”⁷⁷⁵

⁷⁷² Erickson, “Federal panel hears scope arguments.” See also, “Mount Graham: Delegation should clarify what its intent really was,” editorial, *The Arizona Daily Star* (Tucson), 18 Dec 1990.

⁷⁷³ “Mount Graham: Delegation should clarify what its intent really was.”

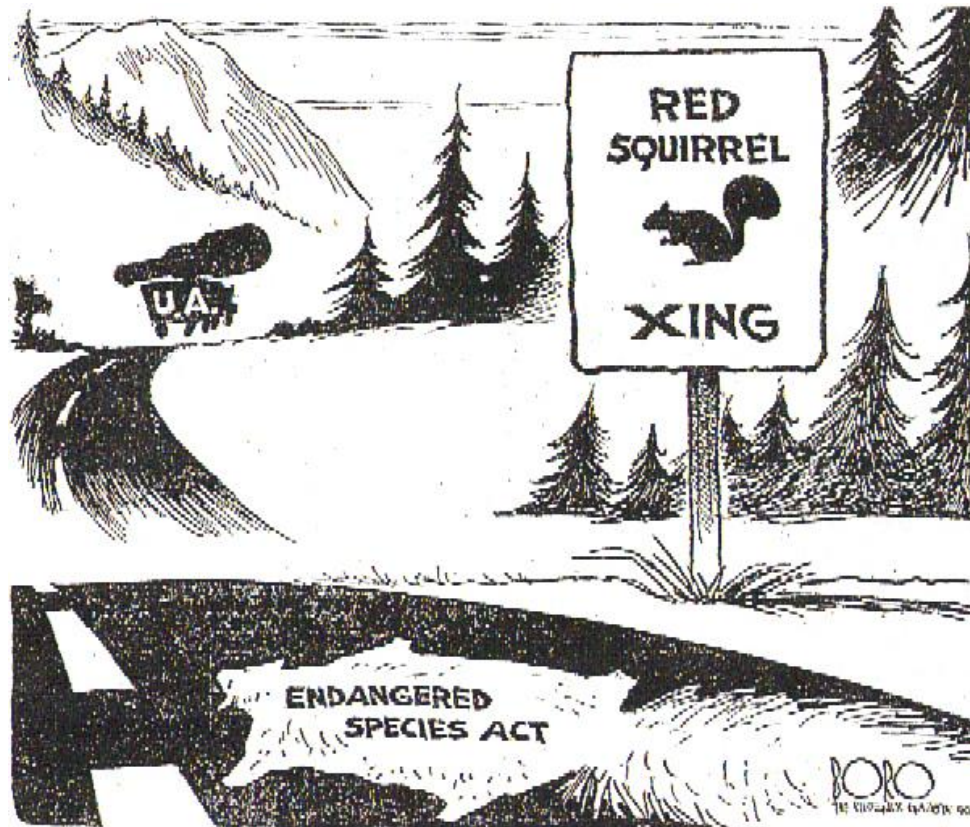
⁷⁷⁴ “Mount Graham: Delegation should clarify what its intent really was.” For more on species extinction in the U.S., see Verlyn Klinkenborg, “Last One, Countdown to Extinction: Efforts at protection are celebrated—and scorned,” *National Geographic*, vol. 215, no. 1 (Jan 2009), 82-107. The Mount Graham red squirrel is highlighted on page 89.

⁷⁷⁵ McNamee, “Mountain Under Heavens.”



**UA gladiator versus Mount Graham red squirrel.
The 9th Circuit Appeals Court judges rule against the squirrel.⁷⁷⁶**

⁷⁷⁶ *The Phoenix Gazette*, 15 May 1990; Mt. Graham Coalition, “Living Land, Sacred Land,” 260.



UA running over the Mount Graham Red squirrel and ESA.⁷⁷⁷

One year later the federal appeals court rejected the environmental challenges and upheld Judge Marquez's ruling in UA's favor. In a 3-0 ruling, Judge Reinhardt, who wrote the opinion, stated that if the squirrels become extinct, "The new telescopes will not necessarily represent an unqualified step forward in our quest for greater knowledge.... By contributing to the extinction of an endangered species, we limit our horizons at least as seriously as we do by delaying or even disallowing the construction of new telescopes."⁷⁷⁸ About the ruling, UA's spokesman, Steve Emerine, stated, "We

⁷⁷⁷ *The Phoenix Gazette*, 27 Aug 1990; See Mt. Graham Coalition, "Living Land, Sacred Land," 259.

⁷⁷⁸ Bob Egelko, "Ruling supports scopes: Appeals court backs Mt. Graham project," *Phoenix Gazette*, 12 Dec 1991. See also, Katherine Bishop, "Court Backs Telescopes, Despite Peril to Squirrel," *The New York Times*, 13 Dec 1991; New York Times News Service, "Appeals court rejects suit to protect red squirrels," *Chicago Tribune*, 13 Dec 1991, 32. The editorial board of the *Chicago Tribune* supported big science and "human progress" ("The squirrels versus the telescopes," editorial, *Chicago Tribune*, 1 Oct 1990, 14), which some readers found disturbing (William Tait, "Hidden Agenda?" letter to editor, *Chicago Tribune*, 15 Oct 1990, 10).

would hope now that we can get out of court and go on with scientific pursuits.”⁷⁷⁹ In fact, science would later play the largest role in the struggle, especially for opponents who cited both astrophysical and biological evidence to support their arguments.

Early on, however, environmentalists were quick to point out the disconnection between the arguments of UA attorneys and the words of the Arizona Congressmen who wrote and supported the Congressional rider. Senator McCain, while addressing the 1989 National Audubon Society convention in Tucson, stated, “I want to emphatically state now, that it is not the intent of this law [1988 exemption] to undermine, abrogate or in any way diminish the provisions of the Endangered Species Act.” In 1988, on the floor of the U.S. Senate, Senator Quentin Northrup Burdick asked Senator DeConcini: “am I correct that this [Mount Graham] legislation requires the project to comply fully with the requirements of the Endangered Species Act?” DeConcini replied, “My colleague from North Dakota is correct.” On August 6, 1990, after the USFWS recommended that biologists initiate endangered species studies before telescope construction, Udall said, “the supporters of the Endangered Species Act (ESA) never would have cleared the Arizona-Idaho Conservation Act for passage if we believed it undermined the integrity of ESA.” On the same day, in a press release, Arizona’s Senator McCain and Representatives Kolbe, Jay Rhodes, Jon Kyl, and Bob Stump, echoed: “We have always believed that the Mt. Graham legislation contemplated the possibility of reinitiation of consultation [new endangered species studies] where new information has been found.”⁷⁸⁰ In spite of these pronouncements, not one Arizona congressman supported the ESA studies recommended by USFWS and the Government Accounting Office (GAO), nor did they support legislation introduced by Congressman Gerry Studds (D-MA) that required those studies.

⁷⁷⁹ Egelko, “Ruling supports scopes.”

⁷⁸⁰ Senator McCain and Representatives Kolbe, Jay Rhodes, Jon Kyl, and Bob Stump, Press Release letter, 6 Aug 1990. These quotations are cited in *Mt. Graham Red Squirrel, et. al. v. Edward R. Madigan, et. al.*, United States Court of Appeals for the Ninth Circuit, 21 Jan 1992 (21 Fed.R.Serv.3d 1301; 22 Env'tl. L. Rep. 20; 954 F.2d 1441), 82-86. See also, “Mount Graham: Delegation should clarify what its intent really was”; Coalition to Save Mt. Graham, “Save a National Biological Treasure,” 6.

In fact, by this point “Congress’ own watchdog,” the GAO, had “blasted the university for deceiving federal agencies.”⁷⁸¹ Among many other findings, the GAO determined that the Germans had never threatened to pull out as UA and Congressmen had argued; federal agencies had pushed back against the project but run into a UA-built wall; Congress was misled in numerous instances by UA; UA still had no idea in 1990, two years after the exemption, which peak they wanted on Mount Graham; and that the primary source for all of this misinformation was the project’s manager, UA.⁷⁸² On November 9, 1990, in correspondence with Representative Studds, the Chairman of the House Fisheries and Wildlife Subcommittee, the GAO wrote, “We believe information presented by the University is incomplete and misleading.” The letter specifically addressed the selection of Emerald Peak on Mount Graham:

We continue to hold the view that the Emerald Peak development alternative contained in FWS’ biological opinion was not supported by available biological evidence.... In our view, the previous studies do not support the Emerald Peak development under any circumstances. Biologists who authored these studies concluded then, and continue to believe, that any loss of critical habitat on Emerald Peak poses an unacceptable threat to the Mt. Graham red squirrel’s existence.⁷⁸³

The interviews conducted by GAO detailed much deceit on the part of UA administrators and astronomers. According to Larry Allen and Sarah Davis, both of whom were

⁷⁸¹ John Dougherty, “Star Whores: The ruthless pursuit of astronomical sums of cash and scientific excellence,” *Phoenix New Times*, vol. 24, no. 25 (16-22 Jun 1993), 2-11. The Government Accounting Office was the precursor to the Government Accountability Office. See also James Coates, “Fervent battle pits science against nature, and leaves university divided,” *Chicago Tribune*, 5 Jul 1990, C6.

⁷⁸² U.S. General Accounting Office, Investigation Record of Interview, Charles Babbitt, Robert Witzeman, Robin Silver, and Jack Fraser, 17 Apr 1990; U.S. General Accounting Office, Investigation Record of Interview, Tom Waddell, 18 Apr 1990; U.S. General Accounting Office, Investigation Record of Interview, Cecil Sims, 19 Apr 1990; U.S. General Accounting Office, Investigation Record of Interview, John Turner, Pete James, Kathleen Milne, and John Briscoe, 19 Apr 1990; U.S. General Accounting Office, Investigation Record of Interview, Sam Spiller, 27 Apr 1990, 14 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Mario Dederichs, 1 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Bob Tippeconnic, 7 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Peter Warshall, 9 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Larry Allen and Sarah Davis, 18 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Michael Spear, 29 May 1990; U.S. General Accounting Office, Investigation Record of Interview, Peter Strittmatter, 4 Jun 1990. See also, *Silver v. Bowsher*, “Plaintiff’s Memorandum of Points and Authorities in Opposition to Defendant’s Motion to Dismiss.”

⁷⁸³ U.S. General Accounting Office to Chairman Gerry Studds, letter, 9 Nov 1990.

members of the Forest Service’s original Mount Graham Issues Identification Team, “In all processes where the UA was involved, UA kept pushing its plans on the project and blamed the feds for the delays.”⁷⁸⁴

UA administrators leaned hard on both the state’s Congressional delegation and governmental wildlife management officials. Coronado National Forest Supervisor Bob Tippeconnic said, “the University got the ear of the regional forester complaining that the [Forest Service] would not even look at the Emerald Peak alternative that the University really wanted. . . . Even without any knowledge they nonetheless reversed the precious judgments of staff who were informed.”⁷⁸⁵ Senator DeConcini stated during a taped radio interview in Safford, that he “convinced the USFS . . . to include Emerald Peak . . . under expedited procedure” after meeting “with Sotero Muniz, Forest Service director for the region (headquartered in Albuquerque).” He boasted, “I’ll do anything I can, including trying to change the law . . . to let it happen,” a reference to moving the location of the telescopes to Emerald Peak on Mount Graham.⁷⁸⁶ The GAO uncovered an illegal, secret “understanding” between project sponsor, Senator McCain, and F.S. Chief Dale Robertson to “facilitate the Mt. Graham project” and sidetrack environmental law.⁷⁸⁷ As a result, the Federal Bureau of Investigation (FBI) opened an investigation file regarding the “understanding.”⁷⁸⁸ McCain also threatened the job of Forest Supervisor James Abbott for obeying the ESA.⁷⁸⁹ As a woman from Phoenix put it in a letter to the editor,

⁷⁸⁴ U.S. General Accounting Office, Investigation Record of Interview, Larry Allen and Sarah Davis, 18 May 1990.

⁷⁸⁵ U.S. General Accounting Office, Investigation Record of Interview, Bob Tippeconnic, 7 May 1990.

⁷⁸⁶ Dennis DeConcini, radio interview, Oct 1987; Coalition to Save Mt. Graham, “Save a National Biological Treasure,” 5.

⁷⁸⁷ U.S. General Accounting Office, Investigation Record of Interview, Dick Flannelly, 7 May 1990. See also, Coalition to Save Mt. Graham, “Save a National Biological Treasure,” 4.

⁷⁸⁸ *Silver v. Bowsher*, “Plaintiff’s Memorandum of Points and Authorities in Opposition to Defendant’s Motion to Dismiss,” 77-80.

⁷⁸⁹ See Michael Murphey, “Report ties job threat to McCain: Forest Service staff bullied, GAO says,” *The Phoenix Gazette*, vol. 108, no. 295, 28 Jul 1990; Judith Wunsch, “Perfidy,” letter to editor, *The Phoenix Gazette*, 11 Sep 1990; Jean A. Fleck, “Squirrel deception,” letter to editor, *The Phoenix Gazette*, 12 Sep 1990; John Wesson, “McCain and history,” letter to editor, *Progress* (Scottsdale, AZ), 12 Sep 1990, 12; Mark Genrich, “Trilogy: Notes on Inouye, McCain and NRA,” opinion, *The Phoenix Gazette*, 26 Dec 1990, A13; Randy Spies, “Senator out of line,” opinion, *The Lantern* (Ohio State University), 7 Jan 1991; Gene Anne Parker, “Senators teach lies,” *The Lantern* (Ohio State University), 7 Jan 1991; Gene Anne Parker, “Public Lying 101,” letter to editor, *Progress* (Scottsdale, AZ), 8 Jan 1991; Karen Gotch,

GAO “investigations uncovered a bleeding trail of browbeaten officials trying to perform their public trust responsibilities.”⁷⁹⁰

GAO and Congressional oversight hearings also found the Mount Graham endangered species studies fraudulent. USFWS biologists Spiller and Fitzpatrick disclosed in court depositions (and later in testimony to Congress) that the studies were “cooked” or “fudged” and “that they had been directed,” by Michael Spear and Jim Young, director and assistant director, respectively, of the USFWS’s Albuquerque office, “to conclude that the first three telescopes would not harm the squirrel.”⁷⁹¹ The editors for *The Phoenix Gazette* wrote, “We haven’t liked the Mount Graham telescope project all along. After hearing that federal biologists were told to skew their reports, we like it less.”⁷⁹² Spear later testified to Congress that he broke provisions of the Endangered Species Act by approving the Mount Graham project. He put politics and his own personal feelings before the “common sense” application of the law, biology, and the mountain.⁷⁹³ The GAO report at length detailed how Spear broke the law by

“His lips move,” letter to editor, *The Phoenix Gazette*, 25 Jan 1991; Sean McGovern, “Universities’ actions reflect slide in ethics,” letter to editor, *The Columbus Dispatch* (Columbus, OH); Shirley McKean, “Redefining Ethics,” opinion, *Progress* (Scottsdale, AZ), 25 May 1992; Coalition to Save Mt. Graham, “Save a National Biological Treasure” 4; Dougherty, “Star Whores”; John Dougherty, “Making a mountain into a Starbase: The long, bitter battle over Mount Graham,” *High Country News*, 27, no. 13 (24 Jul 1995); Amy Silverman, “Saving Private Interests,” *Phoenix New Times*, 6 Aug 1998; McNamee, “Mountain Under Heavens”; Jeffrey St. Clair, “Star Whores: How John McCain Doomed Mount Graham,” 16 Jul 2008, www.counterpunch.org; Alan Maimon, “Arizonans recall run-ins with McCain,” *Las Vegas Review-Journal*, 5 Oct 2008, <http://www.lvrj.com/news/30483079.html>.

⁷⁹⁰ Parker, “Public Lying 101.” See also, McGovern, “Universities’ actions reflect slide in ethics.”

⁷⁹¹ “Astronomers, Biologists Clash Over Observatory Plans.” See also, Sam Negri, “Red-squirrel study fudged, biologists say: 2 say they were told to fudge squirrel data,” *The Arizona Republic* (Phoenix), 7 Feb 1990, 1; Sam Negri, “Judge OKs 4-month work ban on Mount Graham telescopes: Biologists will restudy fate of red squirrels,” *The Arizona Republic* (Phoenix), 27 Mar 1990; MacFarlane, Breck, and Galbreath, “The Battle Intensifies,” 4; Mark Holman Turner, “Judge Delays Construction of Arizona Observatory,” *The Scientist*, vol. 4, no. 9, 30 Apr 1990, 5.

⁷⁹² “Mount Graham scandal,” editorial, *The Phoenix Gazette*, 8 Feb 1990.

⁷⁹³ U.S. Congress, House of Representatives, Subcommittee on National Parks and Public Lands; Committee on Interior and Insular Affairs and the Subcommittee on Fisheries and Wildlife Conservation and the Environment; Committee on Merchant Marine and Fisheries, “Joint Oversight Hearing on Preparation of the 1988 Biological Opinion Regarding Mt. Graham Red Squirrels,” HII177100, 26 Jun 1990 (Washington: Government Printing Office, 1990), 104-105. See also, R. Cowen, “Rodents and Telescopes: A Squirrelly Issue,” *Science News*, vol. 138, no. 1, 7 Jul 1990, 7.

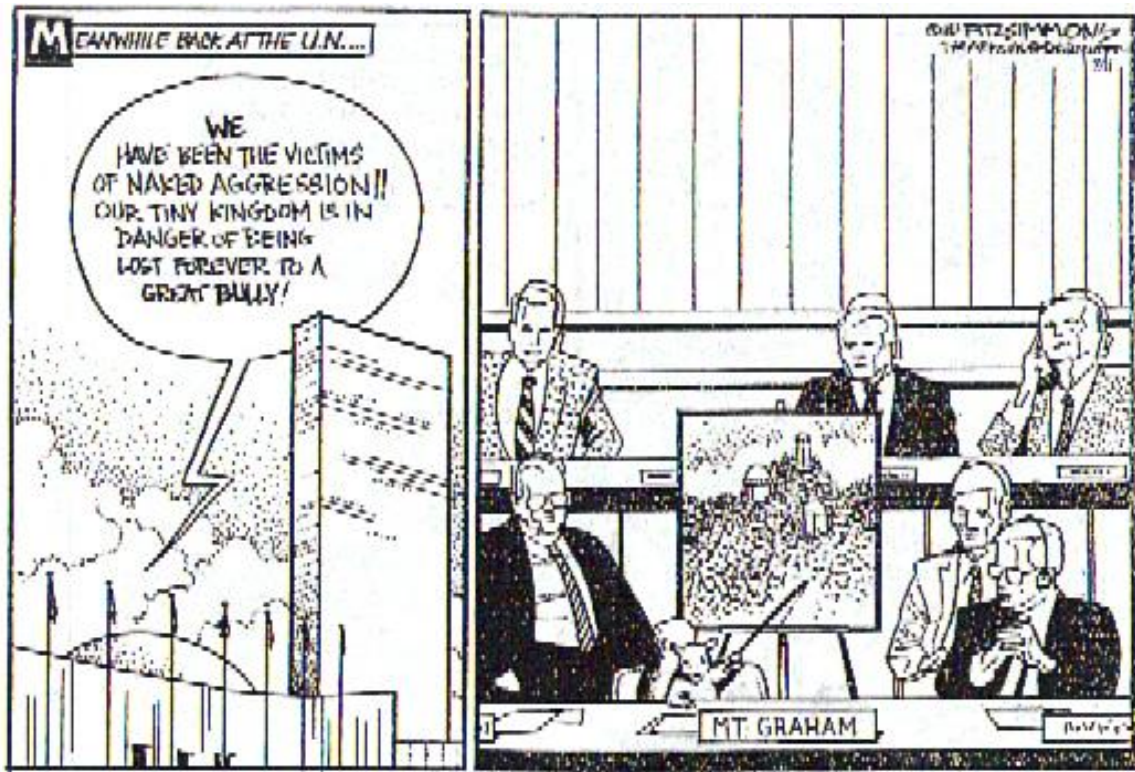
incorporating non-biological criteria into his approval of the astrophysical development, and that the fraudulent Endangered Species Act study should be rewritten.⁷⁹⁴

The editors of *The Arizona Daily Star* noted the ways in which UA and Arizona's politicians used the promise of science, especially astronomy, when necessary, but then backed away from science whenever biologists came forward to request environmental impact studies or environmentalists crafted arguments based on the science of biology. The authors of the editorial stated, "One expects more of institutions of higher learning. Knowledge, and the pure pursuit thereof, is thought to be paramount in such places." Once the USFWS requested the new review studies in 1990, UA argued that the construction of the telescopes should continue, regardless of the status of the studies. The editors countered: "Science isn't about taking exemptions. It is about holding a candle in the darkness and asking questions you don't know the answers to. It's not a matter of convenience."⁷⁹⁵ The newspaper noted the privileging of one mode of scientific inquiry over another. The newspaper editors also argued that the telescopes could be built elsewhere: "The study of the stars can and does go on in many different places." If the telescopes were planned for a new location, the writers noted, "There might be a loss to the prestige of the UA's astronomy department, but there would not necessarily be a loss of knowledge." Put simply, according to the editors, although UA had the legal right to move forward with its plans, perhaps it should not have. Queried the writers, "wouldn't you expect a university—of all places—to rise above selfish concerns and say science, as a whole, might be better served by waiting for a little more scientific research?"⁷⁹⁶

⁷⁹⁴ U.S. General Accounting Office, "Views on Fish and Wildlife Service's Biological Opinion Addressing Mt. Graham Astrophysical Facility," GAO/T-RCED-90-92 (Washington: 1990), 6-8.

⁷⁹⁵ "Mount Graham: Science is not a matter of convenience," editorial, *The Arizona Daily Star* (Tucson), 21 Feb 1990.

⁷⁹⁶ "Mount Graham: Science is not a matter of convenience."



“Meanwhile Back at the U.N. ... ‘We have been the victims of naked aggression!! Our tiny kingdom is in danger of being lost forever to a great bully!’”⁷⁹⁷

And yet UA continued to deceive the public and provide falsifications long after the many findings of the GAO. In June and July 1991, for example, UA attorney James F. McNulty was caught forging letters and omitting important, critical language to answer questions regarding the Arizona-Idaho Conservation Act in correspondence with and for Arizona’s regents, including ex-officio member, Arizona Governor Fife Symington. As an editor for *The Phoenix Gazette* stated, McNulty “addressed the Endangered Species Act” in a letter to Regents president Esther Capin with words, “The requirements of Section 7 of the Endangered Species Act shall be deemed satisfied as to the issuance of a special use authorization for the first three telescopes and the secretary shall immediately approve the construction.” However, McNulty omitted the phrase that immediately preceded the section he chose to quote: “Subject to the terms and conditions of

⁷⁹⁷ *The Arizona Daily Star* (Tucson), 12 Sep 1990. The Mount Graham red squirrel pleads his case before the United Nations. See Mt. Graham Coalition, “Living Land, Sacred Land,” 88c, 261.

Reasonable and Prudent Alternative Three of the Biological Opinion.” As newspaperman Mark Genrich stated, “This was not an insignificant omission. The phrase ensures that the Endangered Species Act is followed.” Genrich discovered that this omission appeared not only in McNulty’s letter to Regents president Capin but also in letters from Regent Arthur A. Chapa, Governor Symington, and Regent Eddie Basha in June and July 1991. Genrich queried, “Why was a critical piece of the quoted law omitted? And why has that shortened version of the law suddenly appeared in Regents’ correspondence?”⁷⁹⁸ This was not the first nor was it the last obfuscation caught by reporters, environmentalists, and students of UA’s public relations machine.

Before much of this history played out, several universities joined the project and then backed out to go elsewhere. Several other universities “considered” it before moving to other astrophysical locations. The University of Texas went elsewhere after student protests in 1987.⁷⁹⁹ Chicago followed suit and backed out in 1989, “refusing to sign the commitment.” The California Tech/NASA (National Aeronautics and Space Administration) program dropped the project in 1990.⁸⁰⁰ Some of the most notable instances of research organizations and universities that considered or joined and then went elsewhere occurred on the campuses of Harvard, Smithsonian, and Ohio State in 1991, and Toronto, Michigan State, and Pitt in 1994. Despite fierce lobbying and many promises by UA, these institutions left after sustained resistance from on campus student groups, concerned community members, Apaches and environmental organizations, and in one case, a city council resolution. Although officials at the Harvard-Smithsonian Center for Astrophysics had used their influence with the Forest Service to gain a foothold on Mount Graham, the joint astrophysical program that had considered the site at least since 1981 was the first in the 1990s to go elsewhere for its scientific research.⁸⁰¹

⁷⁹⁸ Mark Genrich, “UofA argument ignores inconvenient federal law,” *The Phoenix Gazette*, 24 Jul 1991.

⁷⁹⁹ Bob Witzeman to author, email, 5 Nov 2003.

⁸⁰⁰ Mount Graham Coalition, “Rejecting U. of Arizona’s Mt. Graham Telescopes,” flyer, n.d. (Summer 2002?).

⁸⁰¹ Jim Erickson, “Smithsonian looks at Graham for scope,” *The Arizona Daily Star* (Tucson), 29 Jul 1990. Several articles briefly describe the political pressure that Harvard-Smithsonian was able to exert. See, for example, Michele F. Forman, “The Battle for Mt. Graham: Can Squirrels Survive The Harvard-Smithsonian Plan? (Gould Slams Squirrel Report, Claiming Misrepresentation),” *The Harvard Crimson*

From 1974 until 2001, Stephen Jay Gould, a noted professor of zoology and geology at Harvard, wrote over 300 consecutive monthly essays for the magazine *Natural History*. His column, “This View of Life,” probed the depths of evolutionary science and presented anecdotal philosophy that has relevance to the ways in which we live.⁸⁰² In the September 1990 issue of *Natural History*, Gould wrote an important article titled “The Golden Rule—a Proper Scale for Our Environmental Crisis.” Gould provided timeless lessons for how to approach human interactions with the natural world. His examples of controversies more than a decade ago are still active dilemmas today. Namely, this article is Gould’s tour-de-force regarding Mt. Graham, about which he devoted a large amount of time in this essay. Citing environmental, ecological, and evolutionary worthiness, and comparing Mt. Graham to the Galápagos Islands, Gould noted, “I am entirely persuaded that the Mount Graham red squirrel should be protected and the astronomical observatory built elsewhere.”⁸⁰³ Earlier that year, Gerhard Thielcke, a Max Planck biologist, said, “as a scientist, I cannot be silent,” and stated that “telescopes can be built elsewhere without the consequences that would occur on Mt. Graham.”⁸⁰⁴ The relict old-growth forest on Mount Graham is an ecological treasure hosting 18 species of plants and animals found nowhere else in the world. Citing geological evidence, “The Pinaleno Mountains, reaching 10,720 feet at Mount Graham,” according to Gould are “sky islands” and “are

(Harvard University), 29 Oct 1990, 3. See also, “In jeopardy of extinction; allegations of fraud,” *The Harvard Crimson* (Harvard University), 29 Oct 1990.

⁸⁰² *Washington Post*, Obituary, “Noted author and scientist Stephen Jay Gould dies at 60,” *Star Tribune* (Minneapolis), 21 May 2002, B6; Joel T. Helfrich, “Stephen Jay Gould’s ‘Golden Rule’ revisited,” *C-Ville Weekly* (Charlottesville, VA), vol. 14, no. 23, 4 Jun 2002, 55. On January 19, 1993, Gould spoke at the University of Arizona regarding his latest book, *Eight Little Piggies: Reflections in Natural History*, in which he “explore[d] his thoughts on extinction and how people ‘ought to treat all species, even the Mount Graham red squirrel, as we would ourselves.’” See “Natural history talk,” *Tucson Citizen*, 18 Jan 1993.

⁸⁰³ Stephen Jay Gould, “The Golden Rule: A Proper Scale for Our Environmental Crisis,” *Natural History*, vol. 99 (Dec 1990), 24-30; Stephen Jay Gould, “The Golden Rule: A Proper Scale for Our Environmental Crisis,” in *Eight Little Piggies: Reflections in Natural History* (New York: W. W. Norton and Co., 1993), 41-51. Gould’s essay was in part a response to an article in *The Wall Street Journal* earlier that year that claimed Gould believed that extinction was the acceptable order of things and certainly nothing to worry about: Michael D. Copeland, “No red squirrels? Mother nature may be better off,” *The Wall Street Journal*, 7 Jun 1990. Copeland’s remarks caused a number of environmentalists, biologists, and concerned citizens to write to the newspaper. See letters from Tom Turner, Karisanne Edgcomb, James H. Matiland, Donna Jean North, Douglas F. Greer, and Robert Witzeman, all titled “Hidden dangers in species extinction,” *The Wall Street Journal*, 6 Jul 1990. See also, Forman, “The Battle for Mt. Graham.”

⁸⁰⁴ Charles J. Babbitt to University of Arizona College of Law staff members, letter, 16 Jan 1990.

precious habitats that should not be compromised.”⁸⁰⁵ The seminal Harvard biologist E. O. Wilson echoed Gould’s concerns. “To let one species go because you want to clear another mile of road,” Wilson said heatedly regarding Mount Graham, “seems to me obscene.”⁸⁰⁶

Despite opposition from these two world-renowned Harvard professors, in October 1990, Steven E. Emerine, associate director of public information and a member of UA’s Mount Graham steering committee, commented, according to a reporter for *The Harvard Crimson*, “that the need for the observatory outweighs concern over the red squirrels.” Elizabeth J. Maggio, UA’s associate director for development and public relations stated, “There has been some protest from biologists, but not enough to stop the project.”⁸⁰⁷ According to an unidentified astronomer, “On the one hand, you have the Smithsonian Institution, with its museums and its reputation of being highly sensitive to environmental concerns.... On the other hand, you have the Smithsonian’s longstanding commitment to astronomy in Arizona.” As reporter Jim Erickson noted in July 1990, “Although Mount Graham is still being considered as the site of the [telescope] array, Smithsonian representatives have taken care in recent months to distance themselves from the observatory project. In February, Earth First! activists, carrying wooden crosses and small coffins, gathered in front of the Smithsonian Institution’s [National] Museum of Natural History in Washington, D.C., and chanted, ‘Squirrels, not scopes!’”⁸⁰⁸ In fact, the group somehow unfurled a banner from one of the museum’s columns that announced an imminent exhibit: “Coming: Ecosystem Destruction on Mt. Graham. Extinction by Smithsonian.”⁸⁰⁹ One large sign held by protestors stated, “Smithsonian Gives

⁸⁰⁵ Gould, “The Golden Rule.”

⁸⁰⁶ Elizabeth Royte, “The Ant Man,” *The New York Times*, 22 Jul 1990.

⁸⁰⁷ Forman, “The Battle for Mt. Graham,” 3.

⁸⁰⁸ Erickson, “Smithsonian looks at Graham for scope.”

⁸⁰⁹ Sam Stanton, “Squirrels’ case heard on high: Critters have banner day at Smithsonian,” *The Arizona Republic* (Phoenix), 7 Feb 1990. The banner drop at the Smithsonian foreshadowed similar forms of protest at Ohio State University and the University of Minnesota. Such actions took their cue from the eco-saboteurs in Edward Abbey’s 1975 novel, *The Monkey Wrench Gang*. In March 1981, the group Earth First! announced itself by dropping a long banner down the concave face of Glen Canyon Dam to make it appear as if the structure had a large crack in it. Edward Abbey stated that day: “Surely, no man-made structure in modern American history has been hated so much, by so many, for so long, for such good reasons, as Glen Canyon Dam.” To many environmentalists working in the Southwest during the

Biodiversity LIP SERVICE while RAPING Arizona's 'Sky Island' Ecosystem." In an amazing show of solidarity, when the banner was unfurled during the protest, a police officer "crossed the street to embrace a protestor, then pointed to the banner and congratulated him. 'I've got to hand it to you,' the officer said before walking off."⁸¹⁰ Despite being involved with the observatory project since at least 1981, the Harvard-Smithsonian Center for Astrophysics was having its doubts. Two reasons were the sciences of biology and astronomy.



“Environmentalists in Washington protest the Smithsonian Institution’s involvement in the Mount Graham telescope project. The protesters claim that the construction endangers the habitat of the Mount Graham red squirrel, whose population has dwindled to 150, according to some environmentalists.”⁸¹¹

late 1980s and 1990s, the telescopes on Mount Graham assumed that role. See the documentary by Christopher (Toby) McLeod, Glenn Switkes, and Randy Hayes, “The Cracking of Glen Canyon Dam with Edward Abbey and Earth First!” *Earth First! Roadshow*, Summer 1982. See also, Edward Abbey, *The Monkey Wrench Gang* (1975; New York: Perennial Classics, 2000), xix-xxiii, 5-7; Stephen J. Pyne, “The Wildland/Science Interface” (unpublished essay, 27 Aug 2009), 2.

⁸¹⁰ Stanton, “Squirrels’ case heard on high.” Emphasis in original.

⁸¹¹ Stanton, “Squirrels’ case heard on high”; Mt. Graham Coalition, “Living Lands, Sacred Lands,” 182.

Gould's seminal essay has been republished in countless anthologies and textbooks and consistently used in college classrooms around the country. In fact, in some instances, this essay acts as the foundation for courses in ethics, sociology, and environmental studies, among others. Some instructors ask their students to respond to Gould's essay in creative ways. For example, Peter Zeitler, Professor and Chair of the Earth and Environmental Sciences Department at Lehigh University asked his students to put themselves in the position of a university president. Posited Zeitler, "Imagine that you are a university president responsible for giving final approval to the construction of the observatory at Mount Graham. You've consulted with lawyers and state officials, you've been lobbied by all sorts of groups, and you will be very visibly setting an example for your student body. Now, the world-famous and distinguished Steven J. Gould's essay ["The Golden Rule"] has crossed your desk. How would you respond to Gould's arguments, and what would you decide to do about the observatory?"⁸¹²

In May 1991, the president of Harvard and the secretary of the Smithsonian answered Zeitler's central question. Soon after the publication of "The Golden Rule," leaders at these scholarly institutions, as well as leaders at dozens of other universities and institutions, heeded Gould's expert, scientific wisdom and dropped their efforts to invest in the telescope project on Mount Graham, "leav[ing] the UofA as the only solid American sponsor for any Mount Graham telescope project."⁸¹³ The Center "rejected" Mount Graham for Hawaii's Mauna Kea. Harvard-Smithsonian astronomers stated that their decision was based on "astrophysical grounds." One reporter stated that the Center chose the Mauna Kea site because it "is prone to much less humidity and precipitation than Mt. Graham. As water vapor obscures submillimeter radiation, Mauna Kea would

⁸¹² Peter Zeitler, "Recitation Instructions: A Golden Rule?" (Earth & Environmental Sciences course [EES3], Lehigh University, Spring 2002), www.ees.lehigh.edu/courses/EES3/diversity.htm (accessed 21 May 2002); Student Environmental Action Coalition, "Mount Graham: Sacred Mountain, Sacred Ecosystem," www.seac.org/seac-sw/mtg.htm (accessed 21 May 2002).

⁸¹³ Michael Murphy, "Hawaii site chosen for telescope: Smithsonian rejects UofA, Mount Graham," *The Phoenix Gazette*, 6 May 1991, A1, A2.

thus be able to yield greater scientific benefits.”⁸¹⁴ It is clear that the “Decade of Controversy” that surrounded the Center’s involvement in the project, including the creation of “fraudulent” government reports and the Congressional exemption, played a key role.

One Smithsonian official noted the profound cultural and ecological problems with Mount Graham. Stated Smithsonian Director of International Affairs, Thomas Lovejoy, “If I had been Secretary of the Smithsonian, ... we would have been out of there (Mt. Graham) when I first heard the project was proposed.”⁸¹⁵ Witzeman of the Maricopa Audubon Society said, “The Smithsonian was the first one to explore Mount Graham, and now they’re admitting it’s an unprincipled travesty to not only human rights but all the environmental laws the nation holds to be lawful.... They don’t want to be part of such a social and environmental horror.”⁸¹⁶ Authors of a damning editorial in *The Phoenix Gazette* said, “It’s a shame it took this long, but it looks as if some of the participants are starting to see the folly of the telescope project.”⁸¹⁷ Numerous universities and institutions pulled away from the project because of Gould’s advice and insights, as well as their desires to avoid a project that circumvented environmental and cultural protection laws and countered the recommendations of world class conservation biologists. Despite what UA astronomers have argued, these academic and research institutions left for several reasons, most notably the concern for environmental degradation, as well as human and cultural rights, but also because the mountain was not a good location for astronomy. The Harvard-Smithsonian Center for Astrophysics and other research organizations found alternative sites for research that more appropriately reflected a commitment to ethics and diversity.

Ohio State University, which had announced it was having difficulty raising money for the project, pulled out soon after Harvard-Smithsonian. OSU, along with the University of Chicago and Italy’s Arcetri, officially joined the project in 1986. OSU gave

⁸¹⁴ Harry James Wilson, “Telescope Site Set for Hawaii: Mt. Graham Location Rejected After Years of Controversy,” *The Harvard Crimson* (Harvard University), 10 May 1991.

⁸¹⁵ Matt Ball, “Rainforests topic of talk,” *The News Record* (University of Cincinnati), 12 Apr 1991.

⁸¹⁶ Murphy, “Hawaii site chosen for telescope,” A2.

⁸¹⁷ “Mount Graham: Finally starting to see the light,” editorial, *The Phoenix Gazette*, 11 May 1991.

UA \$600,000 to it in 1985 and \$800,000 in 1988, and, according to an OSU student, “participated in that notorious million-dollar lobbying blitz.”⁸¹⁸ But even the “sunk costs” were not enough to keep OSU involved and OSU students played a key role in OSU dropping the project.⁸¹⁹ At one point, students opposed to the telescope project sent OSU’s president a copy of the Endangered Species Act, a dozen black carnations, and a “certificate of destruction.”⁸²⁰ OSU student Joe Haselbaker stated, “They shouldn’t get special treatment just because they are a university,” a reference to community members and college graduates who imagine that universities are special, magical places.⁸²¹ But OSU astronomers and administrators pushed back with numerous pleas for the project. OSU astronomer Jay Frogel argued, “The Columbus telescope will improve the intellectual atmosphere on campus and indirectly benefit everyone on campus.... The gains to the university are worth the price tag.”⁸²² OSU spokesman Malcolm Baroway told reporters that OSU would “deal with the telescope in the best way in the interest of science and technology.”⁸²³ Activists wondered: if OSU had the best interest in science why were astronomer’s lawyers simultaneously arguing in court that they had been exempted from the science of the ESA biological studies? Universities seemed to insist regularly that astrophysical science superseded biological science. Meanwhile OSU attorney Robert Haverkamp stated, “if [the project] really caused harm, Ohio State wouldn’t be there.”⁸²⁴ Activists questioned: if the project caused no harm, why did astronomers spend millions of dollars lobbying and litigating to exempt themselves from

⁸¹⁸ Jody Schaub, “Universities’ actions reflect slide in ethics,” letter to editor, *The Columbus Dispatch* (Columbus, OH), 11 May 1991.

⁸¹⁹ Mary Reinthal, “Kill the telescope,” letter to editor, *The Plain Dealer* (Cleveland), 26 Feb 1991; Joanna D. Shipengrover, “Land vs. telescope,” *The Plain Dealer* (Cleveland), 26 Feb 1991; ; Joanna Shipengrover, “Big Telescope,” letter to editor, *Chicago Tribune*, 28 Feb 1991, 20; Sean McGovern, “Forget-Graham-Not,” letter to editor, *The Lantern* (Ohio State University), 1 Apr 1991; McGovern, “Universities’ actions reflect slide in ethics”; Schaub, “Universities’ actions reflect slide in ethics”; “Abandoning Mount Graham,” editorial, *The Phoenix Gazette*, 12 Sep 1991;

⁸²⁰ Tim Doulin, “Students against scope send a message to Gee,” *The Columbus Dispatch* (Columbus, OH), 25 Apr 1991.

⁸²¹ Greg Moser, “Activists stage rally at OSU to oppose telescope project,” *The Columbus Dispatch* (Columbus, OH), 31 Jan 1991.

⁸²² Robert Bunge, “Students protest Graham telescope,” *The Lantern* (Ohio State University), 19 Oct 1990.

⁸²³ Moser, “Activists stage rally at OSU to oppose telescope project.”

⁸²⁴ Alice Exworthy, “Telescope protests provoke awareness,” *The Lantern* (Ohio State University), 31 Jan 1991.

the nation's environmental laws, especially NEPA and ESA? By 1991, students on campus were not satisfied by the responses from the faculty and administration. In September 1991, OSU withdrew and put "The Columbus Project ... in jeopardy," according to UA vice president for research, Michael Cusanovich.⁸²⁵

The fallout from OSU's withdrawal on the Columbus, Ohio, campus was great. But the reasons for OSU's action were cultural and environmental reasons. Arcetri Observatory astronomers criticized OSU for pulling out.⁸²⁶ Astronomer Eugene Capriotti quit the chairmanship of his department in protest and retired early.⁸²⁷ OSU dean of the College of Mathematics and Physical Sciences, William Kern, and other administrators quit in protest.⁸²⁸ Kristen Sellgren, an OSU astronomer, threatened to quit.⁸²⁹ UA law professor Andy Silverman stated that OSU went elsewhere because "undergraduate curriculum and minority recruitment [were] higher priorities."⁸³⁰ In fact, OSU President Gordon Gee said, "When you are cancelling math classes to build a telescope, you have a problem."⁸³¹ However, both UA and OSU officials revealed to the media that environmental and cultural reasons, not economic, were responsible for OSU's abandonment.⁸³² "We were misled... The economic and financial arguments [for OSU's decision] don't hold weight," said UA's administrative director of the project, George

⁸²⁵ Jim Erickson, "Ohio State pullout may kill largest Mt. Graham scope project," *The Arizona Daily Star* (Tucson), 8 Sep 1991, 1. See also, William Sweet, "Ohio State withdraws from Mount Graham telescope project," *Physics Today*, Nov 1991.

⁸²⁶ Kim A. McDonald, "Ohio State Quits Telescope Project, Irking Scientists," *The Chronicle of Higher Education*, 18 Sep 1991.

⁸²⁷ Michael B. Lafferty, "Telescope decision is blasted: OSU's astronomy chairman declares he'll quit in protest," *The Columbus Dispatch* (Columbus, OH), 10 Sep 1991, B1; Kevin Corvo, "Mt. Graham cancellation causes chair's resignation," *The Lantern* (Ohio State University), 20 Feb 1992.

⁸²⁸ Jim Erickson, "OSU dean will step down to protest telescope project pullout," *The Arizona Daily Star* (Tucson), 11 Sep 1991.

⁸²⁹ Kristen Baird, "Telescope controversy: Astronomer is no longer starry-eyed about OSU post," *The Columbus Dispatch* (Columbus, OH), 9 Sep 1991; Carole Hawkins, "Good riddance to profs interested in stardom," letter to editor, "Readers focus on OSU's telescope decision," *The Columbus Dispatch* (Columbus, OH), 21 Sep 1991.

⁸³⁰ *Lo Que Pasa* (University of Arizona Administration Newsletter), 23 Sep 1991.

⁸³¹ Michael B. Lafferty and Tim Doulin, "Gee counters telescope critics," *The Columbus Dispatch* (Columbus, OH), 11 Sep 1991.

⁸³² "OSU can't pay, drops telescopes," *The Columbus Dispatch* (Columbus, OH), 8 Sep 1991; David Hoye, "Foes rejoice as telescope funds dry up," *The Phoenix Gazette*, 9 Sep 1991; Peter La Capelle, "OSU provost says UA knew of fund problems," *Arizona Daily Wildcat* (University of Arizona), vol. 85, no. 18 (17 Sep 1991).

Cunningham.⁸³³ Even Capriotti, who left OSU for Michigan State University, admitted that the environmental pressures caused OSU's withdrawal.⁸³⁴ In letters to the editor of *The Columbus Dispatch*, noted American Indian historian Jack D. Forbes and other people highlighted the cultural and environmental reasons for OSU's decision. Stated Forbes, "Studies have shown there are other places for telescopes. There is no other Mount Graham for the Apache."⁸³⁵

But UA continued to look for collaborators. In the February 1992 issue of *Physics Today*, UA indicated that they were still searching for new partners.⁸³⁶ The University of Toronto (UT) announced that it might join the project in September 1991.⁸³⁷ UT students and Canadian Indian and public interest groups opposed UT's participation. Citing financial concerns and Apache and environmental protests, UT dropped out two years later in January 1994.⁸³⁸ During the 1990s, UA also lobbied and began negotiations during with, among others, the University of Florida, Cornell University, University of Wisconsin at Madison, the Institute for Astrophysics in Potsdam, and the State Observatory in Heidelberg, Germany.⁸³⁹ Penn State and Stanford University dismissed consideration of the LBT and joined Texas in the 9.2-meter Hobby-Eberly telescope that saw first-light in 1996. The Carnegie Institute rejected consideration of the LBT in 1992, Harvard did so in 1995 (Harvard had earlier abandoned its proposed Mount Graham radio

⁸³³ Lafferty, "Telescope decision is blasted."

⁸³⁴ Michael Alwood, "Mt. Graham squirrels owe lives to telescope," opinion, *The Lantern* (Ohio State University), 30 Sep 1992.

⁸³⁵ Jack D. Forbes, "Mount Graham project would desecrate shrine," letter to editor, "Readers focus on OSU's telescope decision," *The Columbus Dispatch* (Columbus, OH), 21 Sep 1991. See also, James Borggren, "Environmental, economic issues support Gee" and Hawkins, "Good riddance to profs interested in stardom," letters to editor, "Readers focus on OSU's telescope decision," *The Columbus Dispatch* (Columbus, OH), 21 Sep 1991.

⁸³⁶ Corvo, "Mt. Graham cancellation causes chair's resignation."

⁸³⁷ Clive Thompson, "Telescope project may violate Apache space," *The Varsity* (University of Toronto), 3 Sep 1991, 3; Ellie Kirzner, "U of T pondering problem telescope: Apaches say observatory project planned by University of Arizona is on ceremonial lands," *NOW Magazine* (Toronto), 4 Sep 1991; David Webster, "Apaches protest 'Project Columbus' on Arizona Mountain," *Catholic New Times* (Toronto), 22 Sep 1991.

⁸³⁸ G. Bruce Rolston, "U of T nixes telescope," *The Varsity* (University of Toronto), 20 Jan 1994; Wallace Immen, "U of T opts out of telescope project: Finances, Apache protests change focus on Arizona scheme," *The Globe and Mail* (Toronto), 19 Jan 1994.

⁸³⁹ Panza, "The Impaling of Apache Holy Ground," 31; Richard P. Jones, "UW-Madison sets sights on Arizona telescope," *Milwaukee Journal*, 3 Apr 1990.

telescope), and MIT and University of Michigan in 1996; all four schools joined the 6.5-meter mirror Magellan project in Chile. In 1995, Georgia State University rejected Mount Graham and opted for Mount Wilson, while the University of Florida, heavily courted by UA since 1995, spurned the LBT plan in 2001 and joined the 10.4-meter telescope in the Canary Islands. Dartmouth University, despite UA's courtship, opted for the 9.1-meter Southern African Large Telescope (SALT) in June 2001. The University of Wisconsin, Carnegie-Mellon University, University of North Carolina-Chapel Hill, and Rutgers also rejected the LBT and joined SALT in 2000-2001.⁸⁴⁰ Each example was additional proof that the LBT project, for multiple reasons including circumvention of laws and poor science and technology, was unsound.

Michigan State University, located in East Lansing, also considered the project, beginning in October 1991. Student members of the Student Environmental Action Coalition (SEAC), an arm of the national group that was successful at Ohio State and elsewhere, urged Michigan State University to drop its considered \$3.75 million partnership in 1993. Campus Native American students challenged both MSU and UA astronomers.⁸⁴¹ An Indian organization called EAGLE (Educating Anishnabe: Giving, Learning, Empowering) unanimously opposed MSU's involvement in the project.⁸⁴² Kathy Van De Car, an MSU senior and member of the Ottawa Tribe, stated, "We have lost enough already.... The only thing we have left is our religion."⁸⁴³ Donald O. Straney, Chair of MSU's Department of Zoology, wrote a lengthy report titled "Mount Graham International Observatory: An Evolutionary Biologist's Perspective," for the Dean of MSU's College of Natural Resources, which made clear several of the factors why MSU

⁸⁴⁰ Mount Graham Coalition, "Rejecting U. of Arizona's Mt. Graham Telescopes."

⁸⁴¹ Jon Vanzile, "Controversial telescope tempts 'U': Wildlife, gambling issues hinder project," *The State News* (Michigan State University), 22 Jun 1993; MSU Mt. Graham Coalition, "U' should avoid telescope project," *The State News* (Michigan State University), 28 Jun 1993; Michael Lee, "'U' telescope plans under student fire: Officials insist concerns have been addressed," *The State News* (Michigan State University), 22 Sep 1993; AP, "Mt. Graham dispute touches Michigan State," *Arizona Daily Star* (Tucson), 4 Mar 1994.

⁸⁴² Patricia Dyer and Jerry Church, EAGLE, to Dr. Lou Ann K. Simons, Provost, 2 Dec 1993.

⁸⁴³ Amber Arellano, "Plans for Arizona telescope shakes up MSU," *Detroit Free Press*, 3 Mar 1994.

should avoid this telescope site.⁸⁴⁴ In March 1994, MSU decided not to join the project.⁸⁴⁵ As MSU's Provost Lou Anna Kimsey Simon put it, "We have made our decision on what we believe to be in the overall best interests, both financial and academic, of Michigan State University." MSU's press release made it clear that the university was opting for the high moral ground, not because of economics: "In Arizona, the Mount Graham project has stirred controversy over environmental and Native American issues. Simon said the university regrets the issues have not been resolved by discussions in Arizona."⁸⁴⁶

The University of Pittsburgh was pressured by its astronomers to join the telescope project in late 1992—at a time when the Columbus Project was originally slated for completion in order to commemorate the Columbus quincentenary.⁸⁴⁷ Through petition drives, sit ins, protests, and campus demonstrations and forums, students of Pitt's local SEAC group and Pitt's Friends of Mt. Graham led the effort to have the university go elsewhere.⁸⁴⁸ When "Cyril Hazard, an astronomy and physics professor, said that if Pitt chooses to take part in the funding of this project it will 'earn Pitt some prominence,'" the editorial board of the Pitt's campus newspaper noted, "Prominence in science, yes. But also prominence for being known as a university, supposedly dedicated

⁸⁴⁴ Donald O. Straney, "Mount Graham International Observatory: An Evolutionary Biologist's Perspective" (Prepared for the Dean's Student Advisory Committee, College of Natural Resources, Michigan State University, 22 Nov 1993), 1-19.

⁸⁴⁵ Kristina Riggle, "'U' drops telescope investigation: Arizona project too pricey, officials say," *The State News* (Michigan State University), 18 Mar 1994; AP, "Michigan State rejects Mount Graham project," *Tucson Citizen*, 18 Mar 1994.

⁸⁴⁶ Michigan State University, "MSU Cancels Participation in Arizona Telescope Project," News Release, 17 Mar 1994.

⁸⁴⁷ Leon Fuksman and David Weimer, "Pitt asked to fund telescope in Arizona," *The Pitt News* (University of Pittsburgh), 12 Nov 1992.

⁸⁴⁸ David Weimer, "SEAC urges 'Pitt: Hands off Mt. Graham,'" *The Pitt News* (University of Pittsburgh), 7 Dec 1992; Kelly B. Casey, "SGB-sponsored forum plays host to variety of issues," *The Pitt News* (University of Pittsburgh), 27 Jan 1993; David Weimer, "SEAC president travels to Washington, D.C.," *The Pitt News* (University of Pittsburgh), 17 Feb 1993; David Weimer, "Mt. Graham supporters return from Washington," *The Pitt News* (University of Pittsburgh), 22 Feb 1993; David Weimer, "Controversy in the desert: Mt. Graham raises doubts," *The Pitt News* (University of Pittsburgh), 22 Feb 1993; Beth Novaly, "SGB asked to oppose Mt. Graham telescope project," *The Pitt News* (University of Pittsburgh), 2 Mar 1993; Mary Gallicchio, "Pitt telescope venture faces opposition at student forum," *Tribune-Review*, 1 Apr 1993, B7.

to higher learning, yet unwilling to respect what is sacred to another culture.”⁸⁴⁹ A San Carlos Apache named Raleigh Thompson visited the campus to meet with university officials and help with the protests, while other Apache people lobbied the administration.⁸⁵⁰ By the end of nearly two years of campus debate, in April 1994, Pitt opted for a telescope in Chile.⁸⁵¹ Stated one member of Pitt’s astronomy and physics department, “The site in South America ... was clearly better than anywhere in the continental United States.”⁸⁵² Citing environmental, cultural, and sacred sites reasons, as well as the universities that went elsewhere, Pittsburgh’s city council passed a resolution the same day asking Pitt to go elsewhere.⁸⁵³

Since the early 1980s, many universities joined and left the project, or looked at the project and went elsewhere. Soon after MSU’s announcement, MSU’s student newspaper declared that MSU was “correct in a nixing cultural, environmental time bomb.”⁸⁵⁴ An editorial from *The Phoenix Gazette* had the following title: “Alone on the Mountain: The UofA loses another partner from the academic world.” Nevertheless, Strittmatter declared that UA would continue “forging ahead.”⁸⁵⁵ Activists opposed to telescope development were quick to point out that everyone, including potential investors, was studying Mount Graham, except UA astronomers; even the Vatican declared, there are “other possible sites that are ‘very viable and they’re in Arizona.” In spite of the various partners that left the project or considered it before going elsewhere, Notre Dame joined by the mid-1990s. After litigation in 1992 and among intense pressure

⁸⁴⁹ “Enough is enough,” editorial, *The Pitt News* (University of Pittsburgh), 19 Nov 1992, 8.

⁸⁵⁰ Don Hopey, “Apache sets sites on Pitt: [Pitt Chancellor] O’Conner hears opposition to telescope project role,” *Pittsburgh-Post Gazette*, 2 Mar 1993; Don Hopey, “Respect our culture, Apache asks astronomers,” *Pittsburgh Post-Gazette*, 8 Mar 1993; “Pitt considering role in telescope project,” *University Times* (University of Pittsburgh), 4 Mar 1993; Paul Nosie, Jr., “First Amendment & religious freedom,” letter to editor, *University Times* (University of Pittsburgh).

⁸⁵¹ Don Hopey, “Pitt pulls plug on telescope: Was last American university considering Mount Graham project,” *Pittsburgh-Post Gazette*, 6 Apr 1994. “University can’t see its way clear in telescope project,” *The Plain Dealer* (Cleveland), 8 Apr 1994.

⁸⁵² “Pitt picks Magellan telescope over Arizona’s Mt. Graham,” *University Times* (University of Pittsburgh), 14 Apr 1994.

⁸⁵³ City of Pittsburgh, Resolution, 5 Apr 1994.

⁸⁵⁴ “Mount Graham: ‘U’ correct in nixing cultural, environmental time bomb,” editorial, *The State News* (Michigan State University), 21 Mar 1994.

⁸⁵⁵ “Alone on the mountain: The UofA loses another partner from the academic world for its telescope project on Mount Graham,” editorial, *The Phoenix Gazette*, 4 Apr 1994, B6.

to find a large telescope in 1996-1997, OSU rejoined the project to purchase viewing time but not as a partner.⁸⁵⁶

In August 1991, the Apache Survival Coalition, the group that Cassadore Davis helped to start, sued the U.S. Forest Service.⁸⁵⁷ Tucson-based attorneys Snell and

⁸⁵⁶ Kim A. McDonald, "Ohio State U. Said to Owe Money After Withdrawal From Telescope Project," *The Chronicle of Higher Education*, 25 Sep 1991; Kim A. McDonald, "Ohio State University Settles Telescope Dispute," *The Chronicle of Higher Education*, 1 Apr 1992; Arizona Board of Regents, "Executive Summary," Board Meeting, 11 Sep 1992, 1-2. See also, The Mount Graham Coalition, "Critique of Mt. Graham Large binocular telescope project 'fact sheet' Position paper of OSU Pres. Gordon Gee—author Dean [Bob] Gold, 27 Feb 1997"; Tim Doulin and Michael B. Lafferty, "OSU may pay for its scope pullout; University of Arizona in line for \$1.8 million settlement," *The Columbus Dispatch* (Columbus, OH), 6 Mar 1992; Tim Doulin, "Trustees OK OSU settling on Telescope; \$1.8 million to be paid for pullout," *The Columbus Dispatch* (Columbus, OH), 7 Mar 1992; Tim Doulin, "OSU's recovery from telescope fiasco appears under way," *The Columbus Dispatch* (Columbus, OH), 15 Mar 1992; Tim Doulin, "Arizona agrees to OSU's settlement on telescope," *The Columbus Dispatch* (Columbus, OH), 21 Mar 1992; Michael B. Lafferty, "Telescope to go without OSU," *The Columbus Dispatch* (Columbus, OH), 10 Jun 1992; David Lore, "Telescope project is closed to OSU," *The Columbus Dispatch* (Columbus, OH), 27 Feb 1996; David Lore, "Some want OSU to rejoin big scope project," *The Columbus Dispatch* (Columbus, OH), 10 Mar 1996; David Lore, "Gee OKs bid for big scope," *The Columbus Dispatch* (Columbus, OH), 12 Oct 1996; David Lore, "Students urge OSU to give up telescope plans," *The Columbus Dispatch* (Columbus, OH), 28 Oct 1996; Andrew M. Kercher, "OSU's renewed interest in project is misguided," letter to editor, *The Columbus Dispatch* (Columbus, OH), 2 Nov 1996; Diane Mong, "Telescope destructive to sacred mountain," *The Columbus Dispatch* (Columbus, OH), 2 Nov 1996; Jonathan Green, "Mount Graham species should be protected," *The Columbus Dispatch* (Columbus, OH), 2 Nov 1996; Emilie Terrazas, "OSU decision tramples on Apaches' sacred site," letter to editor, *The Columbus Dispatch* (Columbus, OH), 16 Nov 1996; David Lore, "New tribal council may swing telescope support; OSU dean keeping focus on election," *The Columbus Dispatch* (Columbus, OH), 1 Dec 1996; David Lore, "First mirror is cast for Arizona telescope; OSU offers draft of partnership rights," *The Columbus Dispatch* (Columbus, OH), 22 Jan 1997; Bernice Harney, "Arizona telescope magnifies long oppression of Apaches," letter to editor, *The Columbus Dispatch* (Columbus, OH), 25 Jan 1997; David Lore, "OSU's bid for viewing rights OK'd; Mount Graham telescope," *The Columbus Dispatch* (Columbus, OH), 25 Jan 1997; The Rev. Jan Greisinger, "Project on Apaches' mountain is unethical," letter to editor, *The Columbus Dispatch* (Columbus, OH), 8 Mar 1997; David Lore, "U.S. Court won't stop telescope construction," *The Columbus Dispatch* (Columbus, OH), 13 Mar 1997; Chris Sheffield, "OSU is wrong to build telescope on mountain," *The Columbus Dispatch* (Columbus, OH), 14 Mar 1997; Matt Peters, "OSU spreads untruths about Mount Graham," letter to editor, *The Columbus Dispatch* (Columbus, OH), 21 Apr 1997; Chris Sheffield, "OSU telescope should be scrapped now," letter to editor, *The Columbus Dispatch* (Columbus, OH), 23 Aug 1997; Matt Peters, "Nuclear waste problems outrank search for ET," *The Columbus Dispatch* (Columbus, OH), 24 Aug 1997; Maricopa Audubon Society to Ohio Legislature, "Analysis of the Mt. Graham Large Binocular Telescope (LBT) Project," Dec 1997; Ohio Sierra Club to Ohio Legislature, letter, 1 Dec 1997; Joyce Pelz (President, Ohio Audubon Council) to Ohio Legislature, letter, 6 Dec 1997; Maricopa Audubon Society to Ohio Legislature, letter, 18 Dec 1997; Robert Witzeman, "Bring Mount Graham into sharper focus," *The Columbus Dispatch* (Columbus, OH), 19 Jan 1998; Carolina Butler, "OSU telescopes cruelly obliterate Indian culture," letter to editor, *The Columbus Dispatch* (Columbus, OH), 10 Mar 2002; David Lore, "Telescope's completion in sight; OSU researchers to test components of project initiated 20 years ago," *The Columbus Dispatch* (Columbus, OH), 15 Dec 2002.

Wilmer, intervening in court for UA against the Apache people, argued that “construction of the first three telescopes should be commenced immediately without the need for, or delay that might be caused by compliance with [cultural, religious, and environmental protection laws].” UA lawyers in the Apache lawsuit not only argued that the “historical and cultural significance” of an American Indian sacred site has no protection under U.S. law but also that freedom of religion does not exist for Indians.⁸⁵⁸ UA attorneys pointed to and cited two Supreme Court cases to support their arguments, one in which the Supreme Court allowed a logging road to be built in a forest sacred to three California tribes and another involving a uranium mine on a sacred butte of the Havasupai tribe near the Grand Canyon.⁸⁵⁹ UA lawyers in the Apache lawsuit also argued, “Since the University is a public school which stands to lose both money and prominence in the field [of astronomy] should this project fail, the public interest factor weighs against an injunction” that Apache people requested in order to stop to evaluate the Apache claims of Mount Graham’s sacredness.⁸⁶⁰ The project was not about increasing knowledge; rather, it was about money and prestige for the university and its astronomers.

The attorneys claimed UA was exempt from cultural, environmental, and religious protection laws. UA attorneys argued that construction of the telescopes “is plainly exempted from other important environmental requirements.” Furthermore, “The Court ultimately held that the purpose and effect of the AICA [Arizona-Idaho Conservation Act] was to render inapplicable both the NEPA guidelines/requirements and other related environmental statutes such as the NFMA [National Forest Management Act]. The NHPA [National Historic Preservation Act] is also covered by

⁸⁵⁷ Jim Erickson, “Apaches sue to halt Mount Graham telescope,” *Arizona Daily Star* (Tucson), 20 Aug 1991; “Apaches sue to stop Mount Graham telescopes,” *The Navajo-Hopi Observer*, 21 Aug 1991; Peter La Chapelle, “Group files suit over Mount Graham telescopes,” *Arizona Daily Wildcat* (University of Arizona), 22 Aug 1991; “Apaches sue to stop Mount Graham telescopes,” *San Carlos Apache Moccasin* (Globe, AZ), 27 Aug 1991.

⁸⁵⁸ “Astronomers may sue Apache,” *The Moccasin* (Globe, AZ), 10 Sep 1991; “Apaches Sue to Stop Monstrous Mt. Graham Telescopes: Law Violations by Columbus Project Threaten Apache Religious Freedom,” *The Circle* (Minneapolis), Sep 1991, 12. See Tim Giago, “No First Amendment for the First Americans,” *Indian Country Today*, 24 Mar 1993, A4.

⁸⁵⁹ *Lyng v. Northwest Indian Cemetery*, 485 U.S. 439 (1988), and *Havasupai Tribe v. United States*, 752 F. Supp. 1471, 1493 [D. Ariz. 1990].

⁸⁶⁰ “Apaches Sue to Stop Monstrous Mt. Graham Telescopes.”

this broad ruling,” as UA attorneys argued in an attempt to cover all of their bases regarding these important U.S. laws.⁸⁶¹

In spite of Apache claims of Mount Graham’s sacredness, a federal judge in April 1992 refused to block telescope construction because the Apache Survival Coalition’s request “was filed too late”; the ASC appealed an August 1991 suit against the U.S. Forest Service. The ASC’s request for a delay was supported by U.S. Congressmen Ronald Dellums (D-CA), James Jontz (D-IN), and Neil Abercrombie (D-HI). “Only days before the hearing, UA was allowed to join the U.S. Forest Service in support of continuing construction,” stated reporter Steve Yozwiak.⁸⁶² UA’s attorneys focused on the loss of money due to delays and the fear of withdrawal by German and Italian partners if U.S. District Judge Robert Broomfield blocked telescope construction. Stated ASC attorney Patricia Cummings, “The traditional Apache got five minutes in court after 500 years of repression. Perhaps it was a mistake on our part to think we would receive a fair hearing in court.”⁸⁶³ In April 1994, the ASC lost their appeal before the U.S. Court of Appeals for the Ninth Circuit.⁸⁶⁴ Soon after, it appealed the court decision based on the fact that the Ninth Circuit court had stated that the ASC and San Carlos Apache Tribe were identical, thus denying the chance for private citizens to have their day in court.⁸⁶⁵

Early on, the struggle had encouraged several non-scientist academics to speak up against the project. Paul Hirt, a history PhD candidate at UA, was one of the first.⁸⁶⁶ Edison

⁸⁶¹ Snell and Wilmer, Tucson-based UA attorneys, argued that UA was exempt from all cultural and environmental laws. See Snell and Wilmer, undated letter, 5, but also 10.

⁸⁶² Steve Yozwiak, “Judge refuses to block telescope construction,” *The Arizona Republic* (Phoenix), 11 Apr 1992.

⁸⁶³ “Court denies tribal motion for Mt. Graham injunction,” *Arizona Daily Wildcat* (University of Arizona), 13 Apr 1992. See also, Tara Meyer, “Apache group appealing Mt. Graham court ruling,” *Arizona Summer Wildcat* (University of Arizona), 9 Jul 1992.

⁸⁶⁴ Kimberly Peterson, “Appeal to stop scopes denied,” *Arizona Daily Wildcat*, 12 Apr 1994.

⁸⁶⁵ Apache Survival, “Apache Survival Coalition appeals court decision on Mount Graham,” *San Carlos Apache Moccasin* (Globe, AZ), 3 May 1994; “Apaches appeal violation of their religious freedom,” *San Carlos Apache Moccasin* (Globe, AZ), 31 May 1994.

⁸⁶⁶ Paul W. Hirt, “Mount Graham ‘Squirrels vs. Scopes’: A Case Study in Natural Management Decision Making,” at the conference, “Solving Environmental Problems: The Past as Prologue to the Present,” American Society for Environmental History and the Northwest Association for Environmental Studies, 27-30 Apr 1989; Paul W. Hirt, “Endangered Arizona Ecosystem Threatened by Telescope Development: The Mt. Graham Red Squirrel Controversy,” *Endangered Species Update*, vol. 7, no. 6 (1990): 1-6;

“Eddie” Cassadore, a UA Press intern and future tribal college teacher, and Diana Hadley, a research assistant at UA’s Arizona State Museum, joined Hirt and Andy Silverman, chairman of the UA’s Committee of Eleven, an oversight committee, in efforts to request a forum on the environmental and religious aspects of Mount Graham.⁸⁶⁷ Elizabeth Brandt, an anthropologist at Arizona State University, offered testimony, and wrote historical surveys of the mountain and scholarly articles opposing the project.⁸⁶⁸ Most importantly, the preeminent anthropologist of Apache lifeways, Keith Basso, joined the ever-growing, scholarly opposition. His lengthy court deposition in April 1992, as well as his comments at UA, are extremely detailed in the substance and amount of information conveyed about the sacred characteristics of Mount Graham.⁸⁶⁹ Along with other academics, they wrote letters and scholarly articles, offered testimony in court, spoke before governmental organizations and boards, gave interviews, and traveled to speak on behalf of Apaches, the environment, and Mount Graham. These scholars were joined by countless others who opposed the project, including American Indian scholar activists Vine Deloria, Jr. and Forbes.⁸⁷⁰

On March 27, 1992, along with Eddie Cassadore, Apache spiritual leaders, and other anthropologists, Basso spoke at a meeting of UA’s Faculty Senate and the Arizona

Coate, “Fervent battle pits science against nature, and leaves university divided”; Paul W. Hirt, “Biopolitics: A Case Study of Political Influence on Forest Management Decisions, Coronado National Forest, Arizona, 1980s-1990s,” in Christopher J. Huggard and Arthur R. Gómez, eds., *Forests Under Fire: A Century of Ecosystem Mismanagement in the Southwest* (Tucson: University of Arizona Press, 2001), 241-286; Karen M. Strom, “Mt. Graham and the University of Arizona Astronomers,” (n.d., probably early 1995), 3, <http://www.hanksville.org/voyage/misc/MtGraham.html>; McDonald, “Judge Bars U. of Arizona From Building Telescopes.”

⁸⁶⁷ Peter La Capelle, “Mt. Graham forums considered,” *Arizona Daily Wildcat* (University of Arizona), 11 Oct 1991; Steve Emerine, “Senate asks Pacheco for Graham project forums,” *Lo Que Pasa* (UA Community News/Calendar), vol. 15, no. 7, 14 Oct 1991.

⁸⁶⁸ Elizabeth A. Brandt, for Apache Survival Coalition, “Executive Summary of the Preliminary Investigation of Apache Use and Occupancy and Review of Cultural Resource Surveys of the Proposed Mt. Graham Astrophysical Area, Pinaleno Mountains, Arizona,” 28 May 1991; Elizabeth A. Brandt, “Declaration in Support of a Preliminary Injunction on 9 April 1992,” for *Apache Survival Coalition v. United States of America* 21 F3D 895 (9th Cir 1994); Elizabeth A. Brandt, “The Fight for Dził Nchaa Si’an, Mt. Graham: Apaches and Astrophysical Development in Arizona,” *Cultural Survival Quarterly* (Winter 1996), 50-57.

⁸⁶⁹ See Keith H. Basso, “Declaration of Keith Basso in Support of a Preliminary Injunction on 9 April 1992” for *Apache Survival Coalition v. United States of America* 21 F3d 895 (9th Cir 1994) (Basso’s comments are not contained in the appellate reporter).

⁸⁷⁰ Jack D. Forbes, letter to editor, *The Moccasin* (Globe, AZ), 17 Sep 1991; Jack Forbes, “Columbus Project should be unthinkable,” letter to editor, *The Navajo-Hopi Observer*, 18 Sep 1991.

Board of Regents.⁸⁷¹ He started off thanking the boards for inviting him to offer testimony. Stated Basso,

I was privileged to teach at the University of Arizona for fifteen years. I considered it then, as I do today, a superior institution in many respects. I believe, however, that the University's handling of the Mount Graham issue, with regard to the Apache people of San Carlos, has been unfortunate and disturbing. More specifically, I believe that the University's position on Mount Graham displays a stunning lack of regard for Apache religious beliefs, as well as the moral and ethical standards that for centuries have sustained them.

As I understand it, this position of indifference and disregard has been produced by two sets of issues. The first arrives from a powerful desire to consolidate the University's position as an international center of astronomical research. The second stems from widespread ignorance within the University of important aspects of San Carlos Apache culture, and from attendant expressions of arrogance and insensitivity that cultural ignorance so typically engenders.⁸⁷²

Basso also commented on the lack of initial response from the Western Apache tribes with regards to the development of Mount Graham:

Representatives of the University and its affiliated institutions have questioned why the Apache did not oppose the construction in the 1930's with a paved road here on Mount Graham. The answer is two-fold. First, the new road provided easier access to clear sites on the mountain. And this was welcomed as a convenience by older people who had difficulty walking. Second and more important, the road was not perceived by Apaches as constituting irrevocable damage to the mountain or its environment. Like modern civil engineers, the Apache knew that the surfaces of old paved roads will crack and break apart, especially at higher elevations where variations and temperatures are extreme. Soon enough, weeds and granules appear in the cracks and all portions of the road grass over. Later, after several years, much of the road will have returned to its original state. Needless to say, gigantic slabs and poured concrete, topped by buildings fashioned by equally permanent materials is something else again. As perceived by Apaches, and surely their perception is correct, these things are

⁸⁷¹ Jim Erickson, "Mount Graham is 'most sacred': Building telescopes there is called disrespectful," *The Arizona Daily Star*, 28 Mar 1992; David Hoye, "Charges fly in final debate over telescope controversy," *The Phoenix Gazette*, 28 Mar 1992, 12; Native American Student Programs, "Mt. Graham: Vatican Declares Traditional Apache Religion Invalid!," *NASP News* (University of California, Riverside), vol. 2, no. 1 (Fall Quarter 1992), p. 6-7. See Statement of Edison (Eddie) Cassadore to Arizona Board of Regents, 27 Mar 1992.

⁸⁷² Keith Basso, Statement to the University of Arizona Faculty Senate and the Arizona Board of Regents at the University of Arizona, Tucson, Arizona, transcript, Tucson, 27 Mar 1992, 1; Strom, "Mt. Graham and the University of Arizona Astronomers," 4.

designed to resist the inevitable forces of nature. These things are made to last forever. And that, courtesy of the University, is irrevocable damage.⁸⁷³

When astronomers questioned the response of Apache people, they failed to take into account that American Indians were not considered U.S. citizens until 1924 and were not permitted to vote in Arizona until 1948, long after the heroic performance of Navajo code talkers and Ira Hayes, among other American Indians from Arizona, during World War II. Little did Apaches realize in the 1930s that the road to the top would be used against them, their religion and culture, as a reason for Mount Graham's astrophysical development, just as the mountain itself was used against them when heliograph signals were placed on its peaks in the 1870s.⁸⁷⁴

As Basso so forcefully put it, "The construction of astronomical facilities atop Mount Graham constitutes a spectacular act of physical and symbolic violence. It is seen as a display of unthinkable disrespect willingly delivered against a sacred site that can never be replaced and should never be disturbed." Basso said, "If construction is allowed to proceed, it will prove to Apache people that once again, as so often in the past, their own religious beliefs count for nothing when brought into conflict with the interests of powerful institutions controlled by non-Indians." Basso continued his lengthy testimony by citing the harm inflicted by UA. "Damage to the life of Mount Graham and its associated forms of natural and supernatural life will do damage to the people who depend on the mountain for spiritual sustenance and culture continuity. As the mountain is wounded, and that is exactly the right word to use here, ... Apache people are wounded as well," stated Basso. "For as they watch the mountain desecrated by those who know not, and apparently care not what they do, there is no alternative by to prepare for the

⁸⁷³ Basso, Statement to the University of Arizona Faculty Senate and the Arizona Board of Regents, 4; Strom, "Mt. Graham and the University of Arizona Astronomers," 4.

⁸⁷⁴ Another sacred place to the Western Apaches, the San Francisco Peaks near Flagstaff, Arizona, shares a similar history. A ski lodge and access road built on the Peaks in the 1930s, coupled with recent approval by the U.S. Forest Service to allow the ski area to use recycled waste water for snowmaking on the mountain, makes the struggle for the Peaks and Mount Graham eerily similar. See www.savethepeaks.org; representatives from Save the Peaks Coalition to author, personal communications, 2 Aug 2003; and the film, *The Snowbowl Effect: When Recreation and Culture Collide*, Klee Benally, dir. (Indigenous Action Media, 2006).

chaos that some day may follow.”⁸⁷⁵ Indeed, the spiritual, cultural, mental, and physical health of the Apache people depended on the health of the mountain.

Basso summed up his testimony by stating, “In the end of course, the issue is a moral one. And the choice it poses is clear. Would the University of Arizona and its affiliated institutions know more about the heavens, or would they rather know they have affirmed the religious integrity of a people who have worshipped for centuries as a sacred place beneath them? ... What will it be? Better science or human justice?” Basso said, “Some people may claim an important victory if someday the project named ‘Columbus’ rises from the peak of *dzil nchaa si’an*. But there will be others, and they’re growing numbers, reach far beyond San Carlos and the State of Arizona, who will interpret the completed project as a loss of tragic and, perhaps, shameful proportions.”⁸⁷⁶ In spite of the brief nod to problems and other issues presented by speakers during the eight hours of testimony in March 1992, UA paid its lip service and resumed its construction plans.⁸⁷⁷ Yet Basso’s words foreshadowed the growing opposition to the telescope project, opposition that had already moved beyond Arizona—opposition that heated up again a few months later when UA astronomers tried again to conceal additional mistakes.

UA announced that it wanted to change the location of the third and largest instrument, the Columbus telescope, in October 1992, to another location on Mount Graham, nearly a half-mile away.⁸⁷⁸ It was clear why UA needed to change the third telescope site. After obtaining a copy of a UA scientific site study under Freedom of Information Act law, an author for *The Arizona Daily Star* wrote, “The stargazers, who have scrutinized the Pinaleno Mountains for nearly 12 years, ‘severely underestimated’ the image-distorting effects of wind blowing through the spruce and fir trees that cloak the summit, according to a recently completed UofA site testing report.”⁸⁷⁹ UA selected

⁸⁷⁵ Basso, Statement to the University of Arizona Faculty Senate and the Arizona Board of Regents, 5.

⁸⁷⁶ Basso, Statement to the University of Arizona Faculty Senate and the Arizona Board of Regents, 5.

⁸⁷⁷ Steve Yozwiak, “Telescope opponents won’t quit; But construction to resume Monday,” *The Arizona Republic* (Phoenix), 28 Mar 1992.

⁸⁷⁸ Friends of Mt. Graham, “University of Arizona Site Change for Columbus Telescope,” briefing paper, n.d. (late 1992?).

⁸⁷⁹ Jim Erickson, “Mt. Graham furor takes a twist: UA wants new site for largest scope; foes vow court fight,” *The Arizona Daily Star* (Tucson), 11 Oct 1992.

the worst site for its telescope plantation. In UA's original, un-sanitized report, UA astronomer Neville Woolf described the "seeing" and practicality of the proposed 122-foot Columbus telescope on East Emerald Peak as "Unacceptable," "Unusable," and worse than "Marginal," and stated that "the location is inappropriate."⁸⁸⁰ The opposition said, "UA chose to build first and make changes later—knowing that stopping a project in process is much harder."⁸⁸¹ The realization that its astronomers lobbied for and obtained the wrong site created new scientific and public relations problems for UA.⁸⁸²

The findings of the study were not flattering to UA. Woolf wrote, "The Columbus Project Telescope has a site ... not fully optimized for either astronomical or biological criteria."⁸⁸³ Woolf stated that "a key mistake was made [by UA] in believing that the effect of the tree layer [on Mt. Graham] was not significant."⁸⁸⁴ Woolf wrote, "Eventually it became apparent there was a problem. ... images were distinctly sharper when the wind came from ... where there is a steep drop-off."⁸⁸⁵ After realizing "that the wire used to manufacture the temperature sensors ... used the wrong kind of wire and so severely underestimated the disturbance within the tree layer," UA astronomers devised a solution that corrected the problem. "Finally with the new temperature measures" in place, "Those places where the air disturbance was least ... tended to be those places where the trees were shortest."⁸⁸⁶ Since Emerald Peak has a degradation of 0.25", in Woolf's words, "the location is inappropriate."⁸⁸⁷ Without expressly saying so, Woolf's work showed that UA blundered into lobbying for the flattest, most densely forested site with the most turbulent airflow, all of which affected the successful use of the proposed telescope.⁸⁸⁸

⁸⁸⁰ Neville Woolf, "Columbus Project Telescope Site," draft, 28 Aug 1992, esp. 9, 10, 14.

⁸⁸¹ Friends of Mt. Graham, "University of Arizona Site Change for Columbus Telescope."

⁸⁸² See Maricopa Audubon Society, "UA Admits Fatal Mt. Graham Flaw," news advisory, 16 Nov 1992, 1-3; "Mt. Graham telescope site found to be defective," *San Carlos Apache Moccasin (Keban)* (Globe, AZ), vol. 8, no. 14, 1 Dec 1992.

⁸⁸³ Woolf, "Columbus Project Telescope," 1.

⁸⁸⁴ Woolf, "Columbus Project Telescope," 6.

⁸⁸⁵ Woolf, "Columbus Project Telescope Site," 7.

⁸⁸⁶ Woolf, "Columbus Project Telescope," 7.

⁸⁸⁷ Woolf, "Columbus Project Telescope," 9.

⁸⁸⁸ Woolf, "Columbus Project Telescope," 10, 11. See Maricopa Audubon Society, "Proposed Mt. Graham Site Change to Increase Ecological Damage: Biologists advice against proposed more disregarded as effects on plant species ignored. UA officials attempt to hide fact that proposed new site contains 'maximum' plant species diversity," news advisory, 10 Jan 1993.

Although Woolf and Strittmatter publically claimed that the proposed site was superb, the report said otherwise. Among other problems, the final, sanitized study released by UA documented poor “seeing” if the telescope was not moved from its proposed location.⁸⁸⁹ Woolf blamed bureaucratic delays that held up the disclosure of the problems with site selection, but Strittmatter told GAO investigators in 1990 that UA was “not firm on Emerald Peak.”⁸⁹⁰ UA astronomers knew the problems with Mount Graham. “As so often is the case when money and egos join forces, dreadful mistakes are made,” remarked reporter Dougherty.⁸⁹¹ “Their job is astronomy and they can’t even get that right, but we’re supposed to entrust them with the welfare of an endangered species and a precious mountaintop?” questioned attorney Hughes. Hughes said, “If they haven’t done their homework, they should pay the price.”⁸⁹² Although UA began site testing “in late 1980 and . . . conducted image-sharpness studies there since 1983 to determine how the air above the mountain blurs telescope images,” it was not until 1992 that it recognized the problem with the “original microthermal sensors,” nearly four years after astronomers agreed to the cluster of three telescopes on Emerald Peak.⁸⁹³

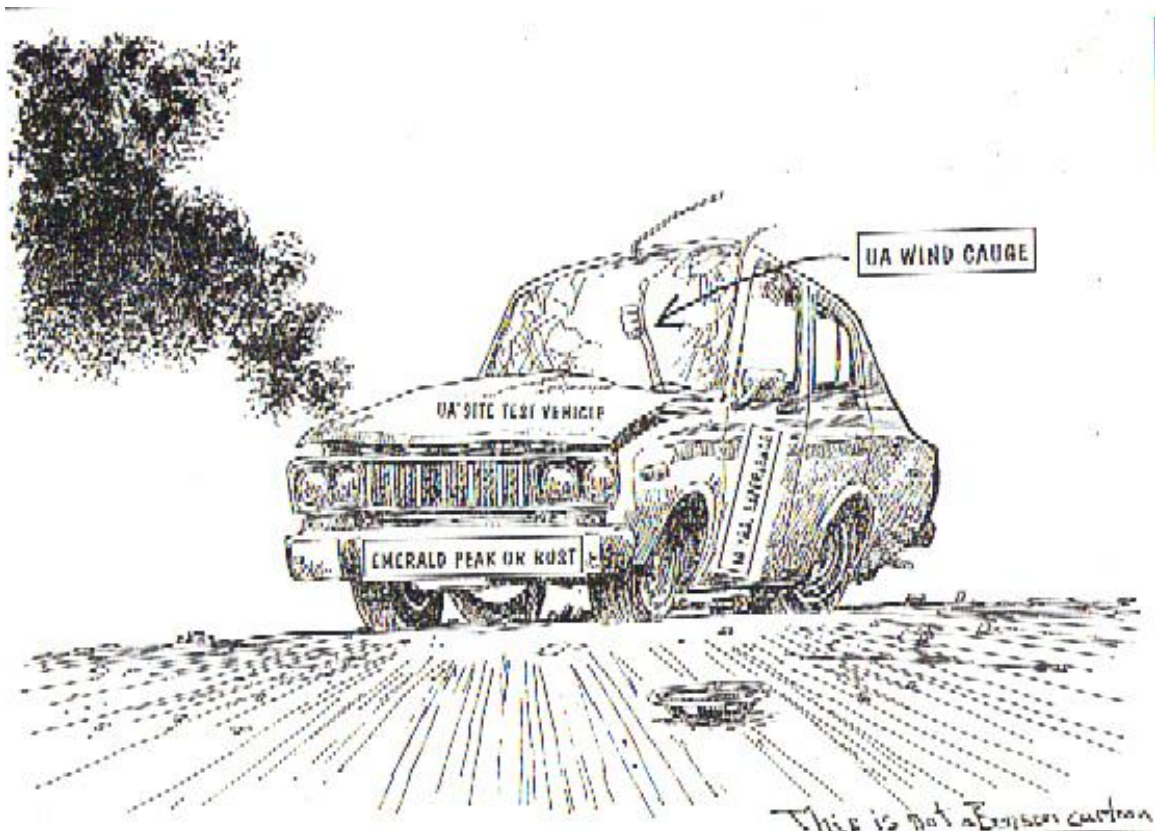
⁸⁸⁹ Neville Woolf and Peter Strittmatter, “Site Testing Results Within the 150 Acres Mt. Graham International Observatory Research Site,” 20 Oct 1992, 9.

⁸⁹⁰ U.S. General Accounting Office, Investigation Record of Interview, Peter Strittmatter, 4 Jun 1990; Dougherty, “Star Whores.”

⁸⁹¹ Dougherty, “Star Whores.”

⁸⁹² Erickson, “Mt. Graham furor takes a twist.”

⁸⁹³ Erickson, “Mt. Graham furor takes a twist.”



**UA SITE TEST VEHICLE: 10 YRS. EXPERIENCE:
EMERALD PEAK OR BUST.⁸⁹⁴**

UA periodically lined up several people, mostly UA academics, to support their endeavors.⁸⁹⁵ In the wake of GAO reports and court findings, however, a number of newspapers, UA graduates, and Apaches were taking notice of UA's propaganda and lies. Manuel Pacheco became president of UA in July 1991, just two months after Harvard and the Smithsonian left Mount Graham. It was assumed that a change in leadership would signal a change in direction for UA, and Apache and environmental opponents

⁸⁹⁴ *The Arizona Republic* (Phoenix), 22 Apr 1993.

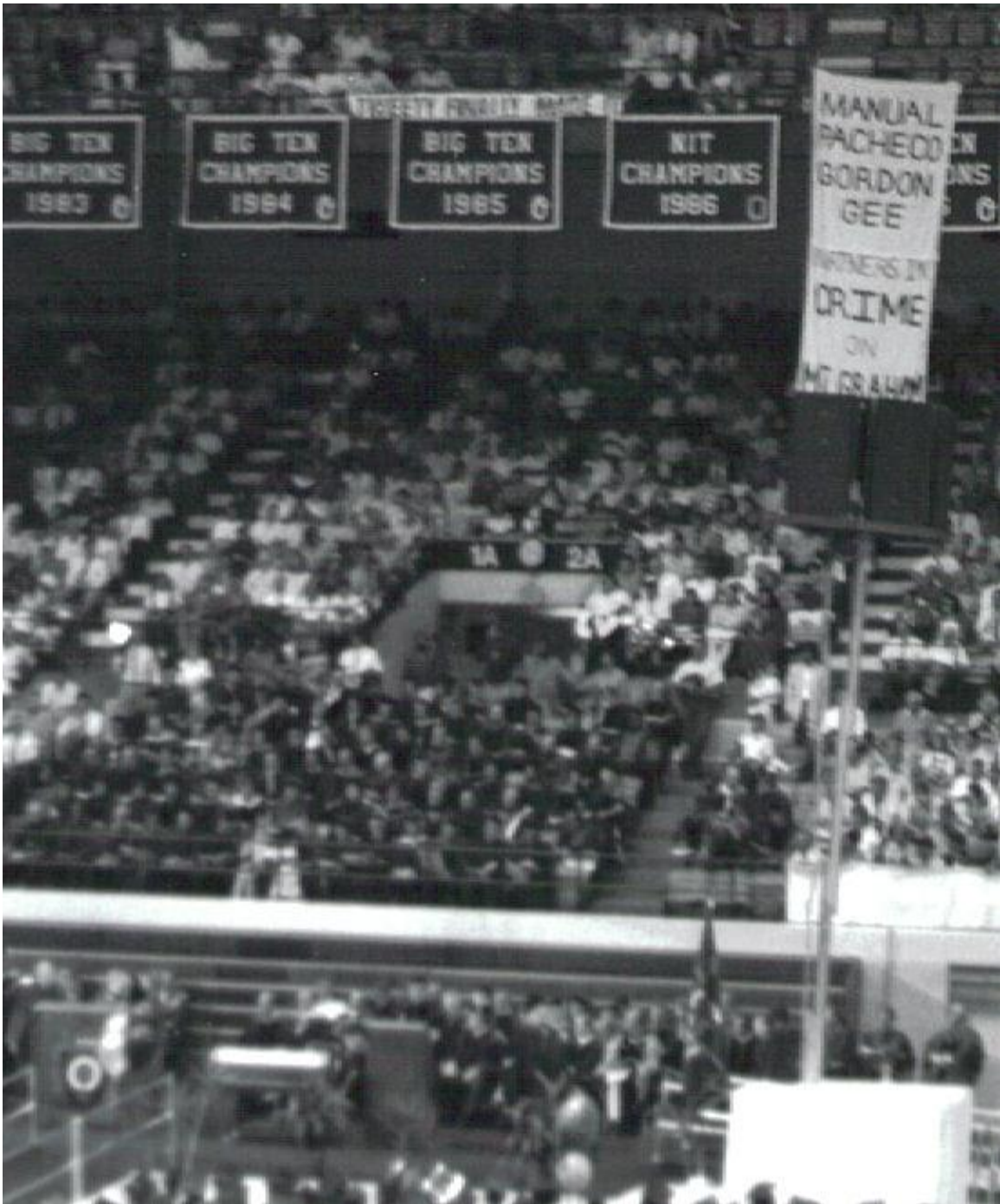
⁸⁹⁵ Conrad Istock, Department of Ecology and Evolutionary Biology, University of Arizona, "A Future for the High Altitude Ecological Systems of the Pinaleno Mountains," 10 Sep 1989; Office of Public Information, University of Arizona, "Myths and Facts About Mount Graham," 26 Sep 1989, 1-4; Jack R. Cole, "Volunteers sought," *Tucson Citizen*, 1 Nov 1989; Office of Public Information, University of Arizona, "Mount Graham International Observatory: Southern Arizona's World-Class Site for Science," pamphlet, n.d [after 1988]; "Mt. Graham International Observatory: Pinaleno Mountains, Southeastern Arizona," map, Dec 1989; "Mt. Graham International Observatory: Location/Site Plan," map, Dec 1989; Mt. Graham Task Force, University of Arizona, "Astronomy in Arizona," folder, n.d.

remained hopeful for a time that UA would go elsewhere. Newspapers continued to write editorials unfavorable to UA's plans. Editors of *The Phoenix Gazette* wrote, "The UofA's Mount Graham telescope project is a quagmire. The University should consider the ramifications."⁸⁹⁶ Newspapers described a keynote address that Pacheco gave on the campus of a UA partner and his alma mater, Ohio State University, during summer commencement in 1991. "From a balcony above the podium, protesters unfurled a 3-foot by 20-foot banner that said, 'Manuel Pacheco, (OSU President) Gordon Gee: Partners in crime on Mount Graham.'"⁸⁹⁷ Outside the stadium where Pacheco spoke, an aircraft flew overhead towing a "Save Mt. Graham" banner. One month later, "OSU ... joined the list of other one-time participants," including the universities of Texas and Chicago, and the Smithsonian, and withdrew from the project "before the economic and environmental damage became too great for the reputations of fine universities to absorb." Within UA's halls, faculty were taking note. "From a public relations standpoint [the project] is a real disaster. From an economic standpoint, it has a really negative effect" on UA, declared UA law professor Silverman.⁸⁹⁸

⁸⁹⁶ "Mount Graham: UofA needs to think carefully," editorial, *The Phoenix Gazette*, 17 Oct 1991, A14.

⁸⁹⁷ "Mount Graham: UofA needs to think carefully," A14; Mark Genrich, "Mount Graham: Learning process for UofA president," *The Phoenix Gazette*, 18 Dec 1991.

⁸⁹⁸ *Lo Que Pasa* (University of Arizona Administration Newsletter), 23 Sep 1991; La Chapelle, "Mt. Graham forums considered"; "Mount Graham: UofA needs to think carefully," A14.



“Manual Pacheco/Gordon Gee: Partners in Crime on Mt. Graham.”⁸⁹⁹

⁸⁹⁹See Mt. Graham Coalition, “Living Land, Sacred Land,” 187. Thanks to Bob Witzeman for providing me with a copy of the original photograph.

Within months of taking office, Pacheco had commissioned a \$37,480 study from a large law firm to determine the best way to handle the controversy that he had inherited. With the results of his clandestine study in hand, the details of which would not be disclosed until nearly two years later, Pacheco met with the San Carlos Apache tribal council in December 1991 to gain their support. Pacheco was criticized by council members throughout the two-and-a-half hour-meeting. “You have 10,000 people (in the tribe) here urging you to stop,” stated Ross Dia, a councilmember. Dia questioned, “Why don’t you listen?”⁹⁰⁰ UA was accused of ignoring Apache claims regarding the sacredness of the mountain, to which Pacheco replied, “We hope this dialogue will help clarify some of these misconceptions.” Dia exclaimed, “I have no respect for you.”⁹⁰¹ Ernest Victor, another councilmember, asked Pacheco why he had not consulted the anthropological records regarding the mountain’s sacredness housed in UA’s Arizona State Museum. “They are professors with the brains to run a university,” observed Victor. “That’s how stupid they are to not look back at their own documents.”⁹⁰² Regarding the connections between the health of the mountain and the health of Apaches, tribal council member Burnette Rope, Jr., said, “You guys just don’t care.... We are the ones who are going to be hurt in the future.”⁹⁰³ Councilmember Wendsler Nosie flatly stated, “If you’re here to start a dialogue, it’s time you start to listen.”⁹⁰⁴ But Pacheco had not gone to San Carlos to listen; he had already made up his mind to stick with the project months earlier—at least as early October 1991 when protests against Columbus Day were held on UA’s campus, outside his office.⁹⁰⁵

⁹⁰⁰ Peter La Chapelle, “San Carlos tribal council supports survival coalition,” *Arizona Daily Wildcat* (University of Arizona), 11 Dec 1991.

⁹⁰¹ David Hoye, “Mountain of Trouble: UofA president opens dialogue, but Apaches say he can’t hear,” *The Phoenix Gazette*, 11 Dec 1991.

⁹⁰² La Chapelle, “San Carlos tribal council supports survival coalition.”

⁹⁰³ Steve Yozwiak, “Scope work defiles site, UA’s head told,” *The Arizona Republic* (Phoenix), 11 Dec 1991, B2.

⁹⁰⁴ Hoye, “Mountain of Trouble.”

⁹⁰⁵ Gina Siler, “Treading on Apaches,” letter to editor, *Tucson Citizen*, 4 Sep 1991; “UA’s Pacheco opens Quincentenary meeting,” news summary, *The Arizona Daily Star* (Tucson), 8 Sep 1991; “Peter La Chapelle, “Mt. Graham protest leads to meeting with Pacheco,” *Arizona Daily Wildcat* (University of Arizona), 15 Oct 1991; “20 protest Columbus Day on UA campus,” *Arizona Daily Star*, 15 Oct 1991; “A Call for Talks,” *Tucson Citizen*, 15 Oct 1991; Lourdes Medrano Leslie, “Pacheco says UA won’t give in to demands to kill scopes project,” *Arizona Daily Star* (Tucson), 16 Oct 1991; Peter La Chapelle,

By the time Pacheco visited San Carlos, the Apache opposition to the astrophysical development, as well as the knowledge that Mount Graham was sacred to Western Apache people, was well known.⁹⁰⁶ Tribal officials had for years sent countless letters of opposition to federal wildlife managers and UA, as well as lobbied European national and city governments.⁹⁰⁷ At the meeting with Pacheco, Cassadore Davis, head of the ASC, stated, “We don’t want any telescopes; we don’t want *Star Trek*.”⁹⁰⁸ But UA sent its president to San Carlos to fully secure its place on the mountain; UA concealed its desires with promises to the tribe for UA to provide education and economic development assistance. After the meeting, Patricia Cummings, ASC’s attorney criticized Pacheco. “I thought he was trying to make a trade-off for economic gain,” she remarked.⁹⁰⁹ “It sounded like a bribe to me,” she said. “That means the university doesn’t get it. This is about religious freedom, not economic development.”⁹¹⁰ After an extremely tense and heated discussion with Pacheco, the council voted unanimously to “fully support” the work of the Apache Survival Coalition with its third opposition resolution.⁹¹¹ According to one newspaper account, “The Apaches have refused to compromise on the matter.”⁹¹² The ASC had filed a lawsuit in September 1991 against the U.S. Forest Service.⁹¹³

One of the best refutations of President Manuel Pacheco’s comments was a seven-page, single spaced letter from UA alumnus Robin Silver to the president of UA’s

“Pacheco, Mt. Graham opposition meet, agree to set up future talks,” *Arizona Daily Wildcat* (University of Arizona), 16 Oct 1991.

⁹⁰⁶ David Hoye, “Mountain long sacred to tribe, newly found notes show,” *The Phoenix Gazette*, 21 Nov 1991, A1, A13; “UA must halt construction on Mt. Graham,” editorial, *Arizona Daily Wildcat* (University of Arizona), 26 Nov 1991; Apache Survival Coalition, “Chronology of UofA Suppression and Denial of Mt. Graham Sacredness,” flyer, Dec 1991.

⁹⁰⁷ See Apache Survival Coalition, Apaches for Cultural Preservation, and Mt. Graham Coalition, “Record of Apache opposition to the desecration of Mt. Graham by the University of Arizona and their astronomer-collaborators,” self-published compendium, 2002, 1-75.

⁹⁰⁸ Yozwiak, “Scope work defiles site, UA’s head told.”

⁹⁰⁹ La Chapelle, “San Carlos tribal council supports survival coalition.” It should be noted that UA offered the same help to the San Carlos Apache Tribe during and after the University of Minnesota joined the project in 2002. Those offers were later rebuked as “bribes” in 2004 by the San Carlos Apache Tribe.

⁹¹⁰ Hoye, “Mountain of Trouble.”

⁹¹¹ La Chapelle, “San Carlos tribal council supports survival coalition.”

⁹¹² Hoye, “Mountain of trouble.”

⁹¹³ Yozwiak, “Telescope opponents won’t quit.”

Alumni Association. In his correspondence, which was forwarded to both Pacheco and the Arizona Board of Regents, Silver showed numerous erroneous statements made by Pacheco in public and in letters to concerned citizens of Arizona that did not match his records found in court documents, testimony from Congressional oversight hearings, GAO findings, newspaper accounts, and the words of Western Apaches, the foremost living authorities on the Western Apache people, and UA's own attorneys.⁹¹⁴ Such statements were regarding the ESA, cultural laws, listing of the Mount Graham red squirrel, supposed support from San Carlos Apache Tribe, and the partners of the project who left and went elsewhere. "Pacheco has consistently resorted to either blatant prevarication or to a public relations campaign based on deceptive half-truths in order to support his Mt. Graham designs," stated Silver. "Apparently Dr. Pacheco has done so to cover-up his own inability to make a difficult management decision. President Pacheco now seems to identify the continuation of the Mt. Graham project with his own ego, and is willing to risk the historic reputation of the University rather than to admit error," Silver argued, at a time when Pacheco had not completed his first year as UA's president.⁹¹⁵ Among many other people, including journalists and activist Kristy Lindgren, Silver documented a habitual pattern of deceptions and falsifications by Pacheco, UA, Vatican, and Max Planck administrators and astronomers.⁹¹⁶

In a letter to Germans interested in learning about Apache opposition to the astrophysical development on Mount Graham, the nine-member San Carlos Apache Tribal Council wrote that it was "particularly troubled by the false information concerning the San Carlos Apache Tribal Council being spread by Dr. Manuel Pacheco."⁹¹⁷ The council cited correspondence from May 1992, in which Pacheco wrote to a woman in Pennsylvania who requested information regarding the planned

⁹¹⁴ For example, see Manuel T. Pacheco to Petra Dongen, letter, 5 Nov 1992; Manuel T. Pacheco to Mariano Slutzky, letter, 12 Nov 1991; Manuel T. Pacheco to Mrs. Madeline Foshay, letter, 27 May 1992.

⁹¹⁵ Robin D. Silver to Leroy Brockbank, letter, 9 Jun 1992, 7.

⁹¹⁶ See Lindgren's lengthy single-spaced letters to UA and the Vatican: Kristy L. Lindgren to Pope John Paul II, letter, 18 May 1992; Kristy L. Lindgren to Manuel T. Pacheco, letter, 7 Jul 1992. Also see the large packet of documentation regarding Mount Graham that Lindgren forwarded to the San Carlos Apache Tribe, environmental activists, and journalists: Kristy L. Lindgren, "Mount Graham Information Packet," in Kristy L. Lindgren to Sal Salerno, 12 Nov 1992.

⁹¹⁷ The San Carlos Apache Tribe to Ms. Jutta Muller, letter, 24 Aug 1992, 2.

observatory. This was an especially egregious letter; in only four paragraphs, Pacheco made multiple comments that were easily refutable.⁹¹⁸ For example, the tribal council took note of two sentences: “The University moved from planning to actual construction only with the explicit assurance of elected tribal leadership that the project posed no concerns for their people. It was only in Summer, 1991 after political issues unrelated to Mt. Graham had led to the election of a new tribal council, that different views were expressed.”⁹¹⁹ The council pointed out that there was no election of new tribal council members in the summer of 1991 and that the council had passed three resolutions against astrophysical development on Mount Graham. “[T]he unanimous Resolution passed on July 10, 1990, was re-affirmed in correspondence dated June 4, 1991, and again by unanimous resolution, dated December 10, 1991. Dr. Pacheco was physically present during our unanimous passage of the December 10, 1991 resolution,” stated the council. After providing text of the resolution, the council inquired, “As legally elected, unified and unanimous Tribal Leadership, how much clearer can we continue to be?” The council voiced its concerns regarding UA claims that the San Carlos Apache “in particular, were kept fully informed as matters proceeded.” The council responded, “This is simply not true.”⁹²⁰ The best action that the Germans could take, according to the tribal council: “Moving the Max Planck Institute’s telescope from the sacred mountain of the traditional Apache is certainly a necessary first step.”⁹²¹

Silver, a Phoenix emergency room physician who had spent a decade fighting for Mount Graham with the Phoenix-based Maricopa Audubon Society, had been at the forefront of the struggle. He initiated lawsuits against, for example, the U.S. GAO, wrote copious letters to UA officials, took part in numerous protests, and built a reputation as a serious muckraker, wildlife photographer, and activist for endangered species. On December 11, 1991, just before Pacheco visited San Carlos, Silver issued a FOIA suit for the entire report Pacheco commissioned regarding the Columbus Project. Yet it seemed

⁹¹⁸ See Coalition to Save Mt. Graham and Apache Survival Coalition, “Critique: Letter of U. of Arizona Pres. Manuel Pacheco to Madeline Foshay of May 27, 1992,” Jul 1992.

⁹¹⁹ See Pacheco to Foshay.

⁹²⁰ The San Carlos Apache Tribe to Muller, 3.

⁹²¹ The San Carlos Apache Tribe to Muller, 4.

as if Silver was getting nowhere with his requests for disclosure of documents created with public money. On January 17, 1992, Silver wrote to the President of the Arizona Board of Regents inquiring why the Board had not “acknowledge[d] the facts” regarding the GAO findings, as well as the partially disclosed Booz-Allen report. Stated Silver, “It certainly seems that the University is willing to reduce respect for environmental concerns and respect for Native American religious beliefs to financial terms. How can you allow this to be the legacy for your Board also?”⁹²² The Board of Regents voted 8-2 to reaffirm its commitment to the telescope project.

Despite many setbacks, Silver’s persistence over the years has paid off. In March 1993, UA was forced by court order to release the full October 1991 report to Silver.⁹²³ Contracted by UA, one of the world’s largest consulting firms, Booz, Allen, & Hamilton, wrote a 42 page report that revealed plans by UA to buy off Apache people, make outcasts of traditional Apaches who did not agree with the astrophysical development, and offer economic inducements that were not to be publically linked with Mount Graham, if UA wanted to stay on the mountain.⁹²⁴ The report also revealed that UA was “‘insensitive’ to the religious concerns of the San Carlos Apaches, whose Tribal Council has voted unanimously three times to confirm the religious importance of Mount Graham,” that UA’s Columbus Bonds were “possibly illegal,” and that its Mirror Laboratory was shaky and was draining funds from other UA programs.⁹²⁵ In fact, after the report was written, the Mirror Lab lost an NOAO contract to Corning. The findings of the study are one of the reasons why UA abandoned its plan to raise money by selling Columbus Bonds.⁹²⁶ In correspondence between Booz-Allen and UA, it was revealed that UA provided the law firm with “information” that was “flawed.”⁹²⁷ The report is also the

⁹²² Robin Silver to Donald Pitt, letter, 17 Jan 1992.

⁹²³ Sarah Tully, “Mt. Graham report released uncensored,” *Arizona Daily Wildcat* (University of Arizona), 22 Mar 1993.

⁹²⁴ Booz-Allen & Hamilton, Inc., final report, “University of Arizona: Mount Graham Observatory Review Issues,” Tucson, Arizona, 23 Oct 1991, 1-42.

⁹²⁵ Steve Yozwiak, “UA report criticized telescopes: Findings were kept from regents in ’91,” *The Arizona Republic* (Phoenix), 17 Mar 1993. See “US grant receipts soar 26 percent,” *Lo Que Pasa* (University of Arizona), 30 Sep 1991.

⁹²⁶ Erickson, “OSU dean will step down to protest telescope project pullout.”

⁹²⁷ Booz Allen to Rauscher Pierce Refnes, letter, 9 Mar 1993.

reason why Pacheco visited with Apaches, attempted to make “outliers” of Apache Survival Coalition and the San Carlos Apache tribal members, found friends among Western Apaches who were in legal trouble and were willing to say the mountain was not sacred, and offered assistance to the tribe.⁹²⁸

Only portions of the report favorable to UA were released to the Arizona Board of Regents in January 1992, just before it voted in favor of the project but after Pacheco had been told “no” by the San Carlos Apache Tribe. Jacqueline Schneider, special counsel to Pacheco, stated that portions of the taxpayer-funded report were edited out “because release of the redacted material at this time would be detrimental to the interests of the university.”⁹²⁹ Not included in the censored version was an option to abandon Mount Graham. “The only way to guarantee this issue does not develop into a major conflict between the Indian tribes and the UofA is to abandon the Mount Graham site,” stated the Booz Allen report.⁹³⁰ According to the report, however, “The community may question the President’s willingness to stick with a tough decision and ‘Take the heat,’” and “The State of Arizona [would] also likely lose some prestige and some economic benefits associated with scientists” if UA abandoned Mount Graham.⁹³¹

⁹²⁸ Booz Allen Hamilton, “University of Arizona,” 41. See David Valenzuela, letter to editor, *Moccasin: A Cultural Publication for San Carlos and The Surrounding Area* (Globe, AZ), 20 Apr 1993; David Valenzuela, “Writer says UofA ignoring culture,” letter to editor, *Eastern Arizona Courier* (Safford), 21 Apr 1993; David Valenzuela, “UofA and Apaches: Cultural annihilation,” letter to editor, *The Phoenix Gazette*, 22 Apr 1993.

⁹²⁹ “Fiasco: The report on Mount Graham,” editorial, *The Phoenix Gazette*, 18 Mar 1993.

⁹³⁰ Booz Allen Hamilton, “University of Arizona,” 41. Emphasis in original.

⁹³¹ Booz Allen Hamilton, “University of Arizona,” 37.



“Paleface Should Try Picking On Someone His Own Size!”⁹³²

Arizona state superintendent of public instruction and one of the two regents who voted against the project, C. Diane Bishop, said it was “unconscionable” that UA withheld information that she felt would have affected the outcome of the vote.⁹³³ She was so outraged that she stated, “To have them mess around with it and cover up pieces that they didn’t want us to see ... they should fire the lot. I really am offended by that.”⁹³⁴ Regent President Andy Hurwitz, a lawyer and supporter of the project, voted for the project because, according to the media, “UA already had invested millions.” About the

⁹³² *The Phoenix Gazette*, 26 Nov 1991.

⁹³³ Yozwiak, “UA report criticized telescopes.” For comments by Diane Bishop from November 1991, see Jim Erickson, “Schools chief Bishop urges ending Mount Graham project,” *The Arizona Daily Star* (Tucson), 23 Nov 1991; “UA must halt construction on Mt. Graham.”

⁹³⁴ Yozwiak, “UA report criticized telescopes.”

sunk costs, Hurwitz stated, “We are \$20 million into this project.” To abandon its plans for Mount Graham and move the telescopes elsewhere, as far as Hurwitz was concerned, “would be very irresponsible.”⁹³⁵ Regents such as Eddie Basha, owner of a grocery store chain on Indian reservations, agreed with Hurwitz’s justifications and helped to spread easily-refutable misinformation.⁹³⁶ Hurwitz also refused to hear the translation of an Apache elder who spoke in Apache during a meeting.⁹³⁷ Despite appeals by Silver and others regarding ethical and responsible behavior by a university, UA continued its observatory plans, especially once “the 9th Circuit Court of Appeals threw out the last remaining portions of the lawsuit filed by the Sierra Club Legal Defense Fund” on March 3, 1993.⁹³⁸ Authors of an editorial for UA’s student-run newspaper, *Arizona Daily Wildcat*, stated, “Failure to release document hurts integrity of UA.”⁹³⁹ A writer for *The Arizona Republic* put it differently: “As the fight became protracted, the university gave more and more evidence of not giving a hoot about the facts (scientific or otherwise), about the plight of the red squirrel, or about competing human wishes for the future of Mount Graham.” As the author pointed out, “Ethical probity and intellectual probity are expected from universities. But in its battle with the forces of activist environmentalism over the future of Mount Graham, the University of Arizona failed sensationally to display both.”⁹⁴⁰

⁹³⁵ Yozwiak, “UA report criticized telescopes.”

⁹³⁶ Eddie Basha, “Telescopes: Indian concerns will be addressed,” letter to editor, *The Phoenix Gazette*, 10 Dec 1991, A17. Basha’s letter was a response to a suggestion that native people in Arizona boycott Basha’s grocery stores in order to bring attention to the Regents’ actions regarding Mount Graham: Harris Francis, “Mt. Graham should be protected from U of A,” letter to editor, *The Navajo-Hopi Observer*, 25 Sep 1991; Harris Francis, letter to editor, *The Independent* (Gallup, NM), 11 Oct 1991; Harris Francis, “Desecration: Indians don’t defile Anglo churches, why defile ours?” letter to editor, *The Phoenix Gazette*, 13 Nov 1991, A19. See Arizona Board of Regents, “Arizona Board of Regents, 1991-1992,” containing profiles and responsibilities of Regents.

⁹³⁷ Ola Cassadore Davis, letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 15 Dec 1992. Two of the Regents refused information from the Apache Survival Coalition.

⁹³⁸ Yozwiak, “UA report criticized telescopes.” Two of the Regents refused information from the Apache Survival Coalition. See Ola Cassadore Davis, letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 15 Dec 1992.

⁹³⁹ “Failure to release document hurts integrity of UA,” editorial, *Arizona Daily Wildcat* (University of Arizona), 23 Mar 1993.

⁹⁴⁰ Chilton Williamson, Jr., “Tunnel Vision,” *The Arizona Republic* (Phoenix), 14 Mar 1993.



“If we believed the report, we might have had to alter our plans.... It was much easier to alter the report.”⁹⁴¹

UA chose a path that enabled them to stay on Mount Graham and proved time and again that little changed with regards to UA policy, propaganda, and deception.⁹⁴² The same “new public relations strategy” suggested by Booz Allen that UA used portions of in 1991—misinformation, unwillingness to disclose information, clandestine actions, obfuscation—UA used and passed along to universities that were considering the project in 2001 and 2002.⁹⁴³ The Booz Allen report suggested that UA create projects that “can contribute positively to the Indian’s needs.” Some Indians called this a “bribery program,” but the report stated that that the creation of such programs “must be done in the context of a renewed UofA commitment and sensitivity to Indian needs, not as a

⁹⁴¹ *Arizona Daily Wildcat*, 23 Mar 1993.

⁹⁴² “Censored: The Mount Graham deception,” editorial, *The Phoenix Gazette*, 30 Apr 1993.

⁹⁴³ Booz Allen Hamilton, “University of Arizona,” 7, 12.

payment to be allowed to stay on Mount Graham.”⁹⁴⁴ Some activists recalled the words of Secretary of State Thomas Jefferson who suggested in 1791 that the U.S. follow a plan of “bribery” rather than “war” when dealing with American Indians.⁹⁴⁵

An Indian UA graduate student named Guy Lopez, who had protested the Mount Graham project at UA and later at the University of Virginia, wrote to Pacheco and UA’s Office of Indian Programs soon after the release of the study.⁹⁴⁶ He included a report he wrote regarding the censorship of the Booz Allen study. He noted that UA’s actions in the Spring of 1992 “may have affected the U of A’s decision to intervene” for the government in an Apache Survival Coalition lawsuit against the U.S. Forest Service. In fact, he pointed to the words of the report: “The UofA would be seen as insensitive to Indian concerns.... [The ‘intervening’ on behalf of the Forest service] sets a precedent of a University intervening in an issue of sacred Indian rights.”⁹⁴⁷ According the UA’s administration newspaper, “UA officials told the Regents ... that although the University respects the religious beliefs and customs of tribal members and ... seek to discuss tribal concerns with members of the San Carlos Tribal Council, it has become necessary to intervene in the Coalition-filed lawsuit to protect the taxpayers’ investment in the observatory.”⁹⁴⁸ In fact, Arizona taxpayers historically paid for cost overruns, unexpected costs, and budgetary shortfalls.⁹⁴⁹ A journalist pointed to the bottom line: the study’s “uncomplimentary findings were so embarrassing to the UofA that the university censored much of the document, only releasing its complete findings when ordered to do

⁹⁴⁴ Booz Allen Hamilton, “University of Arizona,” 11.

⁹⁴⁵ Thomas Jefferson to James Monroe, letter, 1791. Quoted in John P. Foley, ed., *The Jeffersonian Cyclopaedia: A Comprehensive Collection of the Views of Thomas Jefferson, Classified and Arranged in Alphabetical Order Under Nine Thousand Titles Relating to Government, Politics, Law, Education, Political Economy, Finance, Science, Art, Literature, Religious Freedom, Morals, Etc.*, (New York: Funk & Wagnalls Company, 1900), 916.

⁹⁴⁶ Anthony Guy Lopez to President Pacheco, letter, 16 Apr 1993; Anthony Guy Lopez to Malcolm Hamp Merrill, letter, 16 Apr 1993.

⁹⁴⁷ Anthony Guy Lopez, “The Censorship of the Booz-Allen: University of Arizona Indian Policy Regarding Mt. Graham,” 16 Apr 1993, 1; Booz Allen Hamilton, “University of Arizona,” 40.

⁹⁴⁸ Steve Emerine, *Lo Que Pasa: UA Community News/Calendar*, vol. 15, no. 3 (16 Sep 1991).

⁹⁴⁹ Peter La Chapelle, “Mt. Graham project receives more funding,” *Arizona Daily Wildcat* (University of Arizona), 5 Sep 1991.

so by a court.”⁹⁵⁰ Yet UA and its partners used the report for years afterward as a playbook.

Pacheco was not the only UA official to hold his cards close to his chest or fabricate information.⁹⁵¹ On the heels of the Booz, Allen, & Hamilton report, in June 1993, a second scientific UA study leaked to the Maricopa Audubon Society, the Phoenix-based environmental group long opposed to the development on the mountain, noted that the Vatican’s telescope was placed in the worst of the locations studied on Mount Graham.⁹⁵² According to Richard Cromwell, one of the staff scientists for the Steward Observatory who authored the study, “It (the Vatican’s) is the worst of the bunch.”⁹⁵³ One journalist’s article ran with the headline, “Worst spot chosen for UA telescope: School’s own report faults site selections.”⁹⁵⁴ Once UA realized it had also selected the worst location for the third and largest yet to be completed telescope, it acted quickly to resolve the problem.⁹⁵⁵ In March 1993, UA’s Cusanovich had “petitioned the U.S. Forest Service to allow the university to change the big scope’s planned location.”⁹⁵⁶ In an opinion column subtitled, “In its rush, UofA fudged, finagled,” Mark Genrich quipped, “Certainly one of the most elemental decisions in any construction project is determining where to place the building.”⁹⁵⁷ Environmentalists were quick to point out that the proposed change affected not only the MGRS but also the Mexican spotted owl, a raptor that was recently declared threatened with extinction.

In their rush to gain a place on Mount Graham, UA astronomers not only failed to complete appropriate scientific studies but also ignored several existing studies from

⁹⁵⁰ Mark Genrich, “Telescopes: In its rush, UofA fudged, finagled,” *The Phoenix Gazette*, 7 Jul 1993.

⁹⁵¹ See Peters, “OSU spreads untruths about Mount Graham.”

⁹⁵² Richard H. Cromwell, C. N. Blair, and Neville J. Woolf, “The Effects of Mountain Topography and Trees on Astronomical Seeing and Turbulence in the Local Boundary Layer,” draft, Steward Observatory, 1993, 22. See also, Richard H. Cromwell, C. N. Blair, and Neville J. Woolf, “The Effects of Mountain Topography and Trees on Astronomical Seeing and Turbulence in the Local Boundary Layer,” American Astronomical Society Proceedings, Phoenix, 3-7 Jan 1993.

⁹⁵³ Steve Yozwiak, “Worst spot chosen for UA telescope: School’s own report faults site selection,” *The Arizona Republic* (Phoenix), 15 Jun 1993.

⁹⁵⁴ Yozwiak, “Worst spot chosen for UA telescope.”

⁹⁵⁵ David Hoyer, “Still going: New telescope plan, old issues reignite battle for peak,” *The Phoenix Gazette*, 31 May 1993, A1-A2.

⁹⁵⁶ Yozwiak, “Worst spot chosen for UA telescope.”

⁹⁵⁷ Genrich, “Telescopes.”

1982-1987 of the National Optical Astronomy Observatories (NOAO), with funding from the Association of Universities for Research in Astronomy (AURA), which included nearly two dozen leading U.S. astronomy universities.⁹⁵⁸ In one peer-reviewed study, NOAO found 37 out of 56 peaks in the Southwest (Arizona, New Mexico, Utah, Nevada, and southern California) that were superior to Mount Graham—sites that did not include Mount Graham’s poorer “seeing” or visibility problems, relatively flat topography, dense old-growth forest, weather that includes monsoons and snowstorms, and fewer suitable viewing nights.⁹⁵⁹ Michael Merrill, an astronomer who studied Mount Graham during the 1980s, stated, “One of the conclusions we had come to [on Mount Graham] was that the idea of being inside a forest in a clearing was not a good idea.”⁹⁶⁰ In fact, astronomers Doug Geisler, Bill Weller, Fred Forbes, D. Morse, and Gary Poczulp, noted that “The effect of trees on Mt. Graham is pronounced.”⁹⁶¹ UA did not heed these warnings.

As a result of those studies, “NOAO jettisoned their Mt. Graham plans and moved to Hawaii and Chile.” These studies “meant the absence of support” from NOAO, “as well as the loss of a major facility [the National New Technology Telescope (NNTT)] for the proposed” MGIO.⁹⁶² UA would eventually lose the two largest telescopes it initially

⁹⁵⁸ UA, Cal Tech, California-Oakland, Chicago, Colorado, Harvard, Hawaii, Illinois, Indiana, Iowa State, Johns Hopkins, Maryland, MIT, Michigan, SUNY New York-Stony Brook, Ohio State, Penn State, Princeton, Texas, Washington, Wisconsin-Madison, Yale, Chile at Santiago, Universidad Nacional Autonoma de Mexico.

⁹⁵⁹ Roger Lynds and Jean W. Goad, “Observatory-Site Reconnaissance,” *Astronomical Society of the Pacific*, vol. 96 (Sep 1984): 750-766 (<http://adsabs.harvard.edu/abs/1984PASP...96..750L>). See also, K. Michael Merrill, “NNTT Site Evaluation Project: An Overview,” conference paper, International Conference on the Identification, Optimization, and Protection of Optical Telescope Sites, Flagstaff, AZ, 22-23 1986, 30-39; K. Michael Merrill, G. Favot, Fred F. Forbes, D. Morse, and G. Poczulp, “Planning the National New Technology Telescope VII: Site Evaluation Project Observation and Analysis Procedures,” *Proceedings of the SPIE* [Society of Photographic Instrumentation Engineers], Vol. 628, Advanced Technology Optical Telescopes III (1986); K. Michael Merrill and Fred F. Forbes, “Comparison Study of Astronomical Site Quality of Mount Graham and Mauna Kea,” Memo No. 39, Supplement to The NNTT Technology Development Program, Report no. 10 (NOAO, March 1987), esp. 30. Funding for these studies came from NOAO and AURA.

⁹⁶⁰ Dougherty, “Star Whores.”

⁹⁶¹ Doug Geisler and Bill Weller, “Site Survey Progress Report,” *National Optical Astronomy Observations Newsletter*, no. 21 (1 Mar 1990), 32-34. See also, Fred F. Forbes, D. A. Morse, and Gary A. Poczulp, “Site Survey Instrumentation for the National New Technology Telescope (NNTT),” *Optical Engineering*, vol. 27 (Oct 1988), 845-853.

⁹⁶² Strom, “Mt. Graham and the University of Arizona Astronomers,” 2; Bob Witzeman to Angela Delmedico (*The Minnesota Daily*), email, 5 Nov 2003.

proposed and for which the Arizona Congressional delegation originally lobbied.⁹⁶³ UA then brought forward plans for the Columbus telescope in 1987, having lost their NOAO partners and NOAO's purchasing contracts for mirror building on Mount Graham. Merrill's 1987 study with Forbes showed that Mauna Kea was better than Mount Graham for nearly every reason that was important to astronomy.⁹⁶⁴ When the Smithsonian Institution left Mount Graham for Hawaii, its secretary, Robert McC. Adams, stated that Mauna Kea was a "very significantly superior site."⁹⁶⁵ McC. Adams based his decision on "a January [1991] report of an independent committee of astronomers recommending the Hawaii site."⁹⁶⁶ At the time, "Mexico ... offered to join Columbus [project] at what both claim is a world-class site in Mexico," but UA steadfastly moved forward with plans for its telescope in Southern Arizona.⁹⁶⁷ Other academic institutions would study Mount Graham and go elsewhere. By the time UA realized the folly of ignoring the clear warnings by NAOA scientific studies conducted during the 1980s regarding Mount Graham's topographic and forestation problems, the astronomers were years into the process, UA's public image had been tainted, and it faced an uphill climb to overcome many new obstacles, most of which were created by delaying its own studies and failing to allow astrophysical science to dictate its decision-making processes.

UA changed the site of the largest telescope to an area other than the spot marked on the 1988 map and described in the Congressional act.⁹⁶⁸ Many journalists and activists argued that UA waited more than five years to complete their "science homework," and

⁹⁶³ Goldwater, DeConcini, Udall, Kolbe, McCain, Rudd, and Stump to Peterson, 4 Nov 1986; Coalition for the Preservation of Mt. Graham, "Mount Graham," newspaper flyer, 1.

⁹⁶⁴ In terms of elevation, latitude, sky clarity, relative humidity at ground, RMS image motion, IR emissivity, nocturnal temperature, day/night t-difference, vertical t gradient, and rainfall, Mauna Kea was a superior site for astronomy. Mount Graham only beat out Mauna Kea in terms of "wind velocity," but not by much. Merrill and Forbes, "Comparison Study of Astronomical Site Quality of Mount Graham and Mauna Kea," 3, 4, 30.

⁹⁶⁵ Genrich, "Telescopes"; "Mount Graham: UofA needs to think carefully," A14; Murphy, "Hawaii site chosen for telescope," A1; "Abandoning Mount Graham"; MacFarlane, Breck, and Galbreath, "The Battle Intensifies—Mt. Graham Can Be Saved," 4.

⁹⁶⁶ Murphy, "Hawaii site chosen for telescope," A1.

⁹⁶⁷ MacFarlane, Breck, and Galbreath, "The Battle Intensifies—Mt. Graham Can Be Saved," 2.

⁹⁶⁸ Duane L. Shroufe (Director, Arizona Game & Fish Department) to Jim Lyons (Assistant Secretary, U.S. Department of Agriculture), letter, 22 Oct 1993. Shroufe and AGFD opposed the proposed telescope relocation.

in the process lobbied Congress for “the worst of six possible mountain locations after using flawed data when selecting the original site.”⁹⁶⁹ In other words, many activists stated, the scientists did not use science, especially when they needed it most regarding telescope site selection.⁹⁷⁰ Many also noted that UA’s new site was “in an area that . . . more squirrels in six of the last eight years, increasing the cluster size and the ‘edge effect’ of cumulative forest destruction” for the Mount Graham red squirrel.⁹⁷¹ As some environmental organizations pointed out, “USFS, USFWS, AGFD studies found the proposed telescope project could permanently destroy, through ‘edge-effect’ dehydration, 129 acres or about 25% of the 472 acres of the squirrel’s ‘best’ habitat.”⁹⁷² In an editorial for *The Phoenix Gazette*, the editors wrote that “for some members of the Arizona congressional delegation, science was not science” and accused the delegation of running over “comprehensive deliberative processes.” UA’s determination that its astronomers had selected the worst site for astronomy on Mount Graham was another defining moment in the struggle that made it difficult to side with or support UA and its astronomers.

The scientific community criticized UA’s missteps and misinformation, especially since NAOA studies pointed in the direction that many astronomers felt UA should have gone. Some environmentalists recalled astronomer Angel’s comments in 1990 that “Scientists must stand up for integrity and truth regardless of the cost.”⁹⁷³ Nationally respected NAOA astronomer Roger Lynds was a vocal opponent of the efforts of UA astronomers whose offices sat just across the street from his in Tucson.⁹⁷⁴ Lynds, according to reporter Yozwiak, “said time would not have made a difference because the University knew years ago that Mount Graham was not an optimum site for astronomy.” But UA was willing to move forward with its plans, regardless of the scientific, political,

⁹⁶⁹ “Court orders a breather for Mount Graham,” editorial, *The Phoenix Gazette*, 29 Aug 1994.

⁹⁷⁰ See MacFarlane, Breck, and Galbreath, “The Battle Intensifies—Mt. Graham Can Be Saved,” 1. See also, The Southwest Center for Biological Diversity, “Internal AGFD Study: Mt. Graham Squirrel Numbers Inflated: Numbers Inflated to Promote Telescopes,” News Advisory, 2 Dec 1997, 1-33.

⁹⁷¹ “Of squirrels and scopes,” editorial, *The Phoenix Gazette*, 17 Jul 1994; “Court orders a breather for Mount Graham”; Forman, “The Battle for Mt. Graham.”

⁹⁷² MacFarlane, Breck, and Galbreath, “The Battle Intensifies—Mt. Graham Can Be Saved,” 4.

⁹⁷³ “Snow will soon halt construction.”

⁹⁷⁴ “Snow will soon halt construction.”

economic, or environmental costs of deforestation and potential extinction of an endangered species. As journalist Dougherty wrote in 1993, “For a decade, UofA has steamrolled all opposition that threatens its cluster of telescopes atop Mount Graham. Its bullheaded effort has alienated other top astronomers who are angry that the university so blatantly placed its political and financial agenda ahead of solid science.”⁹⁷⁵ Lynds stated,

Their (UA officials’) plan all along was to have an enormous complex up there. They’ve had to slide to get around the environmental stuff and slide to get around the cultural stuff. What has happened [on Mount Graham] is all of astronomy has gotten a bad name for all of this in the minds of a lot of people.... The Mt. Graham project is all about self-aggrandizement.... It’s got nothing to do with science, technology and truth or the best use of taxpayers’ money.⁹⁷⁶

The impact of UA’s actions, many of which worked against best scientific practices, was being felt both inside the astronomy community and outside of Southern Arizona. A 1997 article in the *Denver Post* noted, “Business, not science, was at the heart of the battle to build an observatory near Tucson.”⁹⁷⁷

Scientists everywhere were beginning to take note of UA’s actions. “It was the opinion of some of my colleagues at the workshop that the gathering was essentially an attempt by the University of Arizona to whitewash their role in the affair,” said biologist Donald K. Grayson from the University of Washington, after taking part in a UA funded conference regarding Mount Graham in 1989. He noted “the remarkable arrogance of Michael Cusanovich [UA Vice President for Research], with the incredible haughty ignorance of [UA astronomer] Neville Woolf.” Grayson continued, “The Mt. Graham affair was as ugly a display of institutional selfishness in the face of real environmental needs as I have ever witnessed.”⁹⁷⁸ As Chris Smith, a Kansas State University biologist who attended the meeting put it, “This symposium was done after the fact. So they had lost some of their credibility as an educational thing.”⁹⁷⁹ A flawed book titled *Storm Over*

⁹⁷⁵ Dougherty, “Star Whores.”

⁹⁷⁶ Yozwiak, “Worst spot chosen for UA telescope”; Dougherty, “Star Whores”; Genrich, “Telescopes.”

⁹⁷⁷ Steve Lipsher, “Arizona’s Star Wars: Business, not science, was at the heart of a battle to build an observatory near Tucson,” *The Denver Post*, 18 May 1997.

⁹⁷⁸ Donald K. Grayson to Conrad A. Istock, letter, Nov/Dec [?] 1989; Norma Coile, “Prof blasts, other defend Mt. Graham talks,” *Tucson Citizen*, 4 Dec 1989.

⁹⁷⁹ Coile, “Prof blasts, other defend Mt. Graham talks.”

a Mountain Island, which was eventually released by the conference promoters, likewise received criticisms from biologist Warshall.⁹⁸⁰

Other astronomers and biologists were so displeased that they wrote lengthy treatises regarding UA's actions. One well-respected astronomer, Karen Strom, who worked for the Smithsonian, State University of New York-Stony Brook, University of Massachusetts-Amherst, and Kitt Peak National Observatory, wrote a paper in 1995 titled, "Mt. Graham and the University of Arizona Astronomers."⁹⁸¹ She said, "I make my opposition to the University of Arizona projects on Mount Graham clear.... I can no longer be held hostage to their political and financial interests."⁹⁸² She pointed out the huge coalition of mainstream organizations that stood with her in opposition to the project—the same coalition that stood together in 2002, 14 years after the Congressional exemption.⁹⁸³ She took umbrage with a 1994 article, "Endangered Species or Telescopes," by Strittmatter, Angel, and UA biologist Bruce Walsh.⁹⁸⁴ She cited an ever-increasing number of telescopes in Mexico, Chile, the United States, and elsewhere—at least two of which would be bigger than the Large Binocular Telescope.⁹⁸⁵ Stated Strom, "It seems strange to me, in an era of unprecedented telescope construction, to pose the questions as one of telescopes *or* species."⁹⁸⁶ In fact, telescopes are many and are always getting bigger, including the Very Large Telescope, Giant Magellan Telescope, Thirty Meter Telescope, Japanese Extremely Large Telescope, European Extremely Large Telescope, the EURO-50, and Overwhelmingly Large Telescope.⁹⁸⁷ One science writer

⁹⁸⁰ Peter Warshall, "Astronomy and Animals on Mt. Graham," (Review: Conrad A. Istock and Robert S. Hoffmann, eds., *Storm Over a Mountain Island: Conservation Biology and the Mt. Graham Affair*), in *Conservation Biology*, vol. 10, no. 5 (Oct 1996): 1480.

⁹⁸¹ Strom, "Mt. Graham and the University of Arizona Astronomers," 1-9.

⁹⁸² Strom, "Mt. Graham and the University of Arizona Astronomers," 8.

⁹⁸³ Strom, "Mt. Graham and the University of Arizona Astronomers," 2.

⁹⁸⁴ Bruce Walsh, Roger Angel, and Peter Strittmatter, "Endangered Telescopes or Species?" *Nature*, vol. 372, no. 6503 (17 Nov 1994), 215-216. See also, Peter A. Strittmatter, letter to editor, *The New York Times*, 5 Jun 1990; Steve Emerine, "Squirrels and telescopes," letter to editor, *The New York Times*, 5 Jun 1990.

⁹⁸⁵ Strom, "Mt. Graham and the University of Arizona Astronomers," 5-6.

⁹⁸⁶ Strom, "Mt. Graham and the University of Arizona Astronomers," 5. Emphasis in original.

⁹⁸⁷ Ronald Kotulak, "Heavens, yes! Super telescopes launch new kind of 'star wars,'" *Chicago Tribune*, 12 Oct 1986, C1; The Associated Press, "Biggest telescope to get twin, pair will be linked," *The Arizona Republic* (Phoenix), 27 Apr 1991; Lee Dye, "Super eye: Keck Telescope opens new era in astronomy," *Los Angeles Times*, 8 Nov 1991; Malcolm W. Browne, "At Andean observatories, soaring condors mean

wrote, “In the late 1970s, astronomers had a problem: the scale of their telescopes no longer matched the size of their ambitions.”⁹⁸⁸ Big Science had big problems, as far as many critics were concerned.⁹⁸⁹ As Strom argued, this “phenomenal growth . . . brings us to the heart of the problem.”⁹⁹⁰

As Strom made clear, the Mount Graham astrophysical project is about a “political situation,” astronomers seeking “large amounts of money” through “intense politicking,” and UA astronomer’s demonizing mainstream environmental protection groups such as the National Audubon Society and the Humane Society of America, “to build their own observatory,” a practice that “has been the answer for astronomy departments for the last century.”⁹⁹¹ In fact, UA’s astronomy program took off when Douglass created the Steward Observatory during the early twentieth century. Strom points out, as have other astronomers, that the struggle for Mount Graham has little to do with science in general or astronomy in particular. For example, Strittmatter, Angel, and Walsh claimed that the Forest Service biological opinions favored observatory construction. But the GAO investigation had found in 1990 that the FS based its decisions on “purely political factors.”⁹⁹² As an official at the U.S. Embassy in Tokyo,

blurry vision,” *The New York Times*, 9 Feb 1992; Bridget A. Morrissey, “Telescope mirror cleaning continues: Mirror will be largest in U.S.,” *Arizona Daily Wildcat* (University of Arizona), n.d. (probably Feb 1993); “In Focus” column, “Seeking Common Ground: Building a New Generation of Gargantuan Telescopes Gets Mired in Environmental and Native Cultural Issues,” editorial, *Scientific American* (Jun 1999), www.sciam.com/1999/0799issue/0799infocus.html, accessed 29 Jul 1999; Roberto Gilmozzi, “Giant Telescopes of the Future,” *Scientific American* (May 2006), 62-71; Dan Sorenson, “Report: Work with UA on giant telescope,” *Arizona Daily Star* (Tucson), 5 Nov 2006; Daniel Cuda, “Telescope shows history of universe,” *The Lantern* (Ohio State University), 26 Apr 2007; Anne Ryman, “World’s strongest telescope at full power in Arizona,” *The Arizona Republic* (Phoenix), 6 Mar 2008; Timothy Ferris, “Cosmic Vision: A New Generation of Giant Telescopes will Carry the Eye to the Edge of the Universe,” *National Geographic*, vol. 216, no. 1 (Jul 2009), 120-137.

⁹⁸⁸ Alexis Madrigal, “The Design of Extremely Large Telescopes,” *Wired Magazine*, 1 Oct 2008; R. G. Carlberg, “An Overview on Extremely Large Telescope Projects,” in P. Whitelock, M. Dennefeld, and B. Leibundgut, eds., *Proceedings International Astronomical Union Symposium*, 2005, no. 232 (2006): 25-33.

⁹⁸⁹ Kim A. McDonald, “‘A Very Risky Undertaking’: Researchers Worried About Unreliability of Big-Science,” *The Chronicle of Higher Education*, 15 Aug 1990; Kim A. McDonald, “International Projects in Big Science Fall Victim to Politics and Soaring Costs,” *The Chronicle of Higher Education*, 27 Nov 1998.

⁹⁹⁰ Strom, “Mt. Graham and the University of Arizona Astronomers,” 1.

⁹⁹¹ Strom, “Mt. Graham and the University of Arizona Astronomers,” 1, 2.

⁹⁹² Strom, “Mt. Graham and the University of Arizona Astronomers,” 6.

Japan, stated in 1998 regarding the construction of large international astronomy projects: “you’re talking about poilitics, you’re not just talking about science.”⁹⁹³

Time and again the actions and words of astronomers and their allies displayed political maneuvering, as well as a privileging of one science and form of knowledge (astronomy) over various sciences and systems of knowledge and knowing (Indigenous, biology, anthropology, history, environmental studies, etc.).⁹⁹⁴ As a writer for *The Arizona Republic* stated, “More significant than the overt theme of institutional selfishness and the arrogance of science is the covert one of conflict between various branches of scientific inquiry at odds with one another.”⁹⁹⁵ As a scientist from inside the astronomy community, Strom’s analysis points to the efforts of the nineteenth century when money and politics came together as settlers, military, and U.S. officials sought mineral wealth, water rights, and timber on and near Mount Graham. The new wealth of astronomy during the twentieth century, coupled with nineteenth-century politics, paved the way for the continuation of colonial practices that surround the observatories on Mount Graham.

Other scientists over the years were also willing to criticize UA’s actions, especially regarding sidestepping the Endangered Species Act, the nation’s strongest environmental law. Leading technical journals criticized the project.⁹⁹⁶ “The heavy-handed political steamrolling by the university administration is not worthy of an institution that aspires to be a major academic center. That minor-league performance has damaged the credibility of astronomy as a whole,” wrote Jeff Hecht, Senior Contributing Editor to *Lasers and Optronics*.⁹⁹⁷ “Although Congress approved construction of the observatory in 1988, ... Congress and the responsible agencies must reevaluate the choice of site,” wrote authors of an editorial for *R&D Magazine*. Furthermore, “Until a

⁹⁹³ McDonald, “International Projects in Big Science Fall Victim to Politics and Soaring Costs.”

⁹⁹⁴ See Pyne, “The Wildland/Science Interface,” 2, 5, 7; John Scott, “Litmus test proposed for ‘pseudo-science,’” *SciDev.Net: Science and Development Network*, 28 May 2002, www.scidev.net/News/index.cfm?fuseaction=readnews&itemid=165&language=1, accessed 13 Jun 2005.

⁹⁹⁵ Williamson, Jr., “Tunnel Vision.” See also, Pyne, “The Wildland/Science Interface,” 2, 5, 7.

⁹⁹⁶ Strom, “Mt. Graham and the University of Arizona Astronomers,” 3.

⁹⁹⁷ Jeff Hecht, “Endangered Species, Endangered Reputations,” *Lasers and Optronics*, Nov 1990.

more objective review is completed, there is no compelling reason to proceed with construction. The stars will still be shining bright no matter when—or where—the observatory is built.” The authors concluded, “The Mount Graham squirrels—and their unique habitat deserve a stay of execution. They’ll never get a second chance.”⁹⁹⁸ As columnist Genrich put it, “history has an extraordinary way of sharpening the senses, and you can hear the clarity of the critical voices speak of what the UofA has done to the mountain and to the truth.”⁹⁹⁹

Another set of critical voices came from the radical environmental activists, many of whom had had enough by this point.¹⁰⁰⁰ Watching the episodic, seesaw events of the past five years made many activists reach their limits. They came to realize that the astronomers had lied, that they had used politics over the nation’s environmental laws, and that they could have gone elsewhere. Just days before the dedication ceremonies for the Vatican’s Advanced Technology Telescope and Max Planck’s Henrich Hertz Submillimeter Telescope, the director of the Max Planck’s observatory on Mount Graham, Jacob Boars, admitted that his program had “lost an edge” by pushing ahead with their project on the mountain. Other astronomical organizations went elsewhere, completed construction of astrophysical projects, and were on line, in some cases four years earlier.¹⁰⁰¹ Students from UA and the Student Environmental Action Coalition (SEAC) for the Southwest attempted to have the dedications postponed and held protests on campus during the week before the dedication.¹⁰⁰² UA expected disruptions during the weekend festivities, but were also “looking forward to doing astronomy instead of

⁹⁹⁸ “Red squirrels to astronomers: Get your own mountain!” editorial, *R&D Magazine*, Jun 1990.

⁹⁹⁹ Genrich, “Telescopes.”

¹⁰⁰⁰ See Carolyn Merchant, *Radical Ecology: The Search for a Livable World* (New York: Routledge, 1992), p. 175; Dave Foreman, *Confessions of an Eco-Warrior* (New York: Harmony Books, 1991), 135, 144, 204; Christopher Manes, *Green Rage: Radical Environmentalism and the Unmaking of Civilization* (Boston: Little, Brown and Company, 1990); Steven Best and Anthony J. Nocella, II, *Terrorists or Freedom Fighters?: Reflections on the Liberation of Animals* (New York: Lantern Books, 2004), 126.

¹⁰⁰¹ The Associated Press, “Mount Graham telescopes to be dedicated,” *Tempe Mesa Tribune*, 12 Sep 1993.

¹⁰⁰² Greg D’Avis, “Students sit in at observatory,” *Arizona Daily Wildcat* (University of Arizona), 15 Sep 1993.

politics,” as UA spokesman Emerine put it.¹⁰⁰³ Witzeman of the Mount Graham Coalition saw things differently. “‘We will never quit our opposition,’ he said. ‘Did opposition to the Berlin Wall end when it was completed?’”¹⁰⁰⁴ For environmental activists, the opportunity to disrupt the planned events was enticing. At the “posh celebration” hosted by the Vatican Observatory Foundation the night before the dedication, telescope supporters got the first glimpse of what was ahead when members of the Apache Survival Coalition, Apaches for Cultural Preservation, SEAC, Catholics for Ethics and Justice, the Mount Graham Coalition, and Earth First! protested outside the event.¹⁰⁰⁵ Little did UA and the Vatican know that Earth First! activists scouted the mountain and planned actions in its defense for months, especially during the annual Earth First! rendezvous held that summer on Mount Graham, with the hope that they could halt the dedications.¹⁰⁰⁶

Activists held up the telescope dedications on September 18, 1993, for at least three hours as the police were forced to cut bicycle U-locks from the necks of protestors who had secured themselves to a cattle guard at the base of the mountain and a gate near its summit. At one point during the motorcade, several groups sprang from the forest and dragged rocks and logs into the road.¹⁰⁰⁷ The biggest surprise for the 400 visitors travelling up Mount Graham that day was encountering a 35- to 40-foot tall tripod created by lashing together tree poles, which had an Apache woman perched on top. The tripod was sitting in the middle of the road with no room to pass. The police commented on the cleverness of the entire effort, especially the timber tripod. Graham County Sheriff

¹⁰⁰³ David Pittman, “Protests planned at Mt. Graham: Two new telescopes will be dedicated at the controversial site tomorrow as opponents gear up for several demonstrations,” *Tucson Citizen*, 17 Sep 1993.

¹⁰⁰⁴ Pittman, “Protests planned at Mt. Graham.”

¹⁰⁰⁵ Jim Erickson, “Telescope foes take protest to posh celebration,” *The Arizona Daily Star* (Tucson), 18 Sep 1993.

¹⁰⁰⁶ Jim Erickson, “Law officers gird for Earth First! on Mt. Graham,” *The Arizona Daily Star* (Tucson), 30 Mar 1993; Hoye, “Still going,” A1-A2; J. M. Thomas, “Mountain Mission,” letter to editor, *Tucson Weekly*, 16-22 Jun 1993; “The Skinny,” letter to editor, *Tucson Weekly*, 16-22 Jun 1993; “Mount Graham permit unneeded,” *The Arizona Republic* (Phoenix), 25 Jun 1993, B3; news note, *USA Today*, 25 Jun 1993; Jim Erickson, “Earth First! rally stays non-violent: Mt. Graham march ends at guarded gate,” *The Arizona Daily Star* (Tucson), 6 Jul 1993; “Cops, Earth First! co-exist on Mt. Graham,” n.p., n.d.

¹⁰⁰⁷ Steve Yozwiak, “Protestors stall telescope dedication: Road up Mt. Graham blocked by opponents, debris; 11 are arrested,” *The Arizona Republic* (Phoenix), 19 Sep 1993. See the photograph of police officers removing the U-lock from Lisa Mauchetti: Mt. Graham Coalition, “Living Land, Sacred Land,” 129.

Richard Mack, who was familiar with activists' tactics of using U-locks, was impressed: "This is ingenuity. That's good. I like that."¹⁰⁰⁸ He wondered aloud how the protesters managed to get the woman into the tripod.¹⁰⁰⁹ Other observers, like Strittmatter, were not pleased. He berated the protestors and called them childish, in spite of the fact that the protestors had used the science of physics to engineer the tripod.¹⁰¹⁰ The 70 officers from the Department of Public Safety, the Graham County Sheriff's Department, the National Forest Service, and UA Police Department rushed to clear the roadway.¹⁰¹¹ The police "imprudently and in great haste," according to the Audubon Society, cut down the tripod by removing a little piece of each pole with chainsaws, one at a time, until the tripod was low enough to remove the Apache woman who was unhurt. The officers "did not want to wait for a cherry picker crane to safely remove her without risk."¹⁰¹² By the end of the delays, 10 people were arrested and the ceremonies proceeded.¹⁰¹³ An editorial for UA's student-run newspaper, the *Arizona Daily Wildcat*, proclaimed, "Protests may be noble, but battle is over."¹⁰¹⁴

¹⁰⁰⁸ John Dougherty, "Cosmic Events: UofA telescopes produce strange protests and weird official reactions," *New Times* (Phoenix), 22-26 Sep 1993.

¹⁰⁰⁹ Joseph Barrios, "Protestors delay telescope salute," *Arizona Daily Wildcat* (University of Arizona), vol. 87, no. 17, 20 Sep 1993.

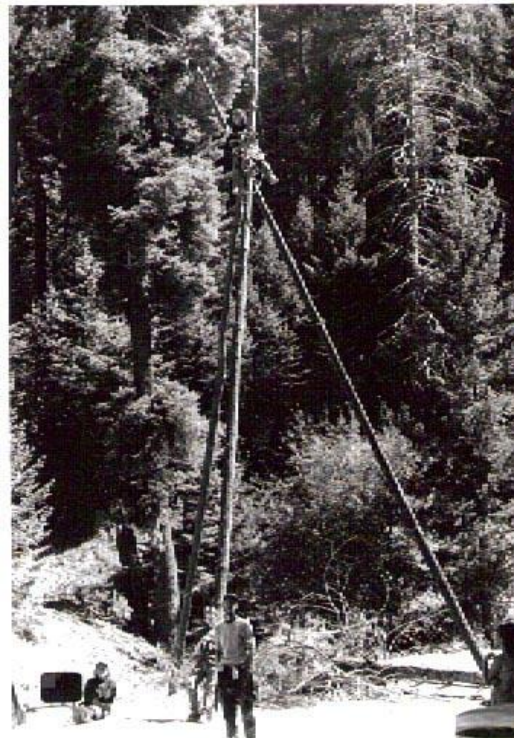
¹⁰¹⁰ Jim Erickson, "10 arrested in protest of Mt. Graham telescopes," *The Arizona Star* (Tucson), 19 Sep 1993.

¹⁰¹¹ Erickson, "10 arrested in protest of Mt. Graham telescopes"; Barrios, "Protestors delay telescope salute."

¹⁰¹² Editorial, *Audubon*, n.d. A description of the tripod setup and use has been a part of the Earth First! manual ever since. See Earth First!, *Earth First! Direct Action Manual: Uncompromising Nonviolent Resistance in Defense of Mother Earth!*, 2nd ed. (Tucson: DAM Collective c/o Feral Press, 2000), 100.

¹⁰¹³ Associated Press, untitled news, 20 Sep 1993

¹⁰¹⁴ "Protests may be noble, but battle is over," editorial, *Arizona Daily Wildcat* (University of Arizona), 20 Sep 1993, 2.



“An Apache woman on Mt. Graham, Sept. 18, 1993, risks her life high atop her human tripod road block. UA, German, and Vatican officials urged police to quickly bring her down rather than delay their inauguration.”¹⁰¹⁵

But the battle for Mount Graham was not over. Campus protests, actions during NCAA sporting events, and other demonstrations took place long before and after this pronouncement. UA students were involved through various groups opposed to the astrophysical development of Mount Graham. Groups such as SEAC and Earth First! attracted a large coalition of students from UA and elsewhere. Indeed, throughout the history of this struggle, UA students and young activists protested UA’s actions.¹⁰¹⁶ In return, UA violated students’ civil rights, used undercover police officers to infiltrate opposition groups and incite student violence, and singled out for false arrests campus

¹⁰¹⁵ Dougherty, “Cosmic Events.” See Mt. Graham Coalition, “Living Land, Sacred Land,” 126. Thanks to Bob Witzeman for providing me with a copy of the original photograph.

¹⁰¹⁶ For example, see Kimberly Peterson, “Tower squatter ends protest: Abel Duffy moves to jail,” *Arizona Daily Wildcat* (University of Arizona), 1 Mar 1994; “Fighting telescope at the top,” *The Arizona Republic* (Phoenix), 24 Feb 1994.

activists and Silver, who photographed some campus demonstrations.¹⁰¹⁷ The UA administration seemed to approve a desperate strategy of brutal, pain-infliction tactics against protesters, including eye-gouging and neck-choking, as vindictive retribution for previous demonstrations.¹⁰¹⁸ In an attempt to deny and suppress Freedom of Speech, UA's Research Corporation filed a SLAPP (Strategic Lawsuit Against Public Participation) suit against student protestors, but it was thrown out of court.¹⁰¹⁹ UA sought to halt the work of the most successful student activists and leaders, especially David Hodges and Guy Lopez. They were arrested on October 12, 1992, while participating in Columbus Day protest on UA's campus.¹⁰²⁰ UA's Department of

¹⁰¹⁷ Jason Auslander, "Undercover officer drops gun at protest," *Arizona Daily Wildcat* (University of Arizona), 3 Nov 1992; Jim Erickson, "Telescope foe says cop tried to incite sabotage," *The Arizona Daily Star* (Tucson), 12 Nov 1992, 1B, 2B; Dougherty, "Star Whores," 27; Bridget A. Morrissey, "Two arrested at Columbus Day protest," *Arizona Daily Wildcat* (University of Arizona), vol. 86, 13 Oct 1992; Enric Volante, "Protesters scuffle with UA police," *The Arizona Daily Star* (Tucson), 13 Oct 1992; Bridget A. Morrissey, "Protestors say arrests were unjust," *Arizona Daily Wildcat* (University of Arizona), 14 Oct 1992; John Dougherty, "University of Arizona Course Title: Dirty Tricks 101," *Phoenix New Times*, 20-26 Oct 1993; Alexa Haussler and Kerry Lengel, "Grand jury a scare tactic, lawyer says," *Arizona Daily Wildcat* (University of Arizona), 13 Nov 1992; Terry Nordbrock, "'Wildcat' defends citizens' rights with subpoena stand," letter to editor, *Arizona Daily Wildcat* (University of Arizona), 17 Nov 1992; Carni Turchick, "Subpoena is another example of UA's contempt for law," *Arizona Daily Wildcat* (University of Arizona), 17 Nov 1992; Alexa Haussler, "Protesters disrupt Pacheco's speech," *Arizona Daily Wildcat* (University of Arizona), 1 Oct 1992; "Protesting to the president," *Tucson Citizen*, 24 Sep 1991; Bridget A. Morrissey, "Eight protesters arrested during Columbus symposium," *Arizona Daily Wildcat*, 5 Oct 1992; Erickson, "Earth First! rally stays non-violent"; Steve Yozwiak, "23 Earth 1st! protesters seized," *The Arizona Republic* (Phoenix), 7 Jul 1993.

¹⁰¹⁸ Janet Komblum, "Telescope foes, police scuffle at UA; 25 arrested: Officers apply painful pressure holds to remove protesters from building," *The Arizona Daily Star* (Tucson), 7 Jul 1993; Christina O. Valdez, "Earth First! vows more protests after arrests," *Tucson Citizen*, 7 Jul 1993; Earth First!, "Earth First! to Sue U of A and Tucson City Police: Police Brutality Charges Brought in Response to Violent Demonstration Crackdown," press conference announcement, 8 Jul 1993; Nicole Greason and Mike Graham, "Earth First! members claim police brutality here," *Tucson Citizen*, 10 Jul 1993; Cultural Rights Are Human Rights Action Group (Minneapolis), "Human Rights Violations Escalate in Arizona," press release, n.d.

¹⁰¹⁹ Kimberly Peterson, "Students protest Mount Graham: SEAC members visit local office," *Arizona Daily Wildcat* (University of Arizona), 5 Apr 1994; Kimberly Peterson, "SEAC sued for protest: Telescope sponsor seeks damages," *Arizona Daily Wildcat* (University of Arizona), 13 Apr 1994; SEAC-Southwest, "Research Corp. Fails, Freedom of Speech Prevails," Press Conference announcement, 24 May 1994. For similar efforts by universities to suppress free-speech rights within academia, see David Roediger, "What's Wrong with These Pictures? Race, Narratives of Admission, and the Liberal Self-Representations of Historically White Colleges and Universities," *Washington University Journal of Law & Policy*, vol. 18 (2005), 220.

¹⁰²⁰ Morrissey, "Two arrested at Columbus Day protest"; "Columbus Day of disobedience," *Tucson Citizen*, 13 Oct 1992; Bridget A. Morrissey, "Trial delayed by paper work," *Arizona Daily Wildcat* (University of Arizona), 30 Apr 1993; Gabrielle Fimbres, "More protest arrests possible: Prosecutors will review a tape

American Indian Studies, led by scholar Jay Stauss, either bent to pressure from UA's administration or felt it was necessary to maintain a distance from the telescope controversy when it denied requests from students like Lopez to consider supporting the listing of Mount Graham on the National Register, and then failed to disclose in departmental meeting minutes that conversations even occurred.¹⁰²¹ Members of the department's faculty were also prohibited, advised, or thought it was in their best interests not to discuss Mount Graham at future meetings.¹⁰²²

Environmentalists and Apache people opposed to the development successfully lobbied various national and international city, state, and national governments. They spoke with and appealed to the United Nations, international environmental groups, indigenous groups in the US and elsewhere, scientists, musicians, lawyers, academics, religious officials, and various human rights, environmental, and indigenous peoples organizations nationally and globally. Musicians such as Eddie Vedder of Pearl Jam and Robby Romero & Red Thunder, among others, took a stand and spoke passionately in support of the Apache people and environmentalists who opposed the project.¹⁰²³ Vedder burned in effigy a UA sweatshirt onstage at a November 1993 concert.¹⁰²⁴ Many of these efforts culminated in an "International Day of Actions in Defense of Mount Graham" on April 5, 1994.¹⁰²⁵ Protests took place in Pittsburgh, where Pitt was considering joining the

made as anti-telescope demonstrators clashed with police at UA," *Tucson Citizen*, 13 Oct 1993; Volante, "Protesters scuffle with UA police"; Auslander, "Undercover officer drops gun at protest"; SEAC Southwest—Student Environmental Action Coalition, "Trial of SEAC Leaders Singled Out by University of Arizona For Arrest," News Announcement, 9 Sep 1993. Activist Michael Schwartz was also targeted for arrest on October 11, 1992 by an officer who attempted to infiltrate the Friends of Mt. Graham. See Michael Schwartz to "Friends," letter, 6 Jun 1993. UA's student newspaper, the *Arizona Daily Wildcat*, was issued a subpoena for their photographs of the protests. See "Subpoena sets ominous precedent," editorial, *Arizona Daily Wildcat* (University of Arizona), 13 Nov 1992.

¹⁰²¹ Anthony G. Lopez to author, email, 16 Oct 2009; Anthony G. Lopez to Jay Strauss, letter, Nov 1996; See "New UA head of tribal studies picked," *San Carlos Apache Moccasin* (Globe, AZ), 14 Jul 1992.

¹⁰²² Panza, "The Impaling of Apache Holy Ground," 31.

¹⁰²³ See Robby Romero, dir., "Makoče Wakan (Sacred Earth)," VH1 World Alert Rockumentary Film Special Edition (VH1/Video Hits One, 1993); Gene Stout, "Power of Pearl Jam," *Seattle Post-Intelligencer*, 18 Mar 1994; Gene Stout, "American Indian's Music Gets Noticed," *Seattle Post-Intelligencer*, 1 Apr 1994.

¹⁰²⁴ Panza, "The Impaling of Apache Holy Ground," 23.

¹⁰²⁵ See the Friends of Mount Graham video by Sky Crosby, dir., *International Day of Actions in Defense of Mount Graham* (Tucson: ECO Productions, 1994); Steve Yozwiak, "50-city protest begins over Mount Graham," *The Arizona Republic* (Phoenix), 5 Apr 1994; Peterson, "Students protest Mount Graham."

project, and in many other cities across the U.S. and around the world such as London, Edinburgh, Florence, and Bonn. Protests also occurred in Australia.¹⁰²⁶

Also significant were the protests of Apache people and various American Indian tribes in Arizona, nationally, and internationally.¹⁰²⁷ The Western Apaches were supported not only by other Apache groups, but by Indigenous Peoples, environmental groups, city councils, and several church organizations. Various scientists at UA and elsewhere opposed UA's ethics and positions regarding the project. Eleven of 29 professors and 41 of 64 graduate students from UA's Department of Ecology and Evolutionary Biology challenged UA's ethics in an open letter.¹⁰²⁸ Both environmentalists and Apaches were party to significant lobbying of international communities and groups in Germany, Italy, and at various United Nations meetings. The project was opposed by the 4000-member Society for Conservation Biology and astronomers, physicists, and members of the worldwide scientific community.¹⁰²⁹ Through letters, resolutions, and protests, these opposition forces condemned the disrespect of UA, Vatican, German, and Italian astronomers and officials. Hundreds of local, national, and international organizations opposed the astrophysical development.¹⁰³⁰ Native Americans, Catholics, students, and the media tended to focus

¹⁰²⁶ *Native American Smoke Signals*, May 1994, 7.

¹⁰²⁷ "Council votes 8-0 opposed to Graham telescopes," *San Carlos Apache Moccasin* (Globe, AZ), vol. 8, no. 36, 25 May 1993; Sandra Rambler, "San Carlos Apaches condemn desecration of Mount Graham," *Indian Country Today*, Southwest Edition, 30 Oct 1995; Marvin Mull, Jr., San Carlos Apache Tribe, to Chancellor Helmut Kohl, Germany, letter, 25 Sep 1995; "Council adopts resolution to reaffirm opposition to Mt. Graham telescopes," *San Carlos Apache Moccasin* (Globe, AZ), 4 Jul 1995. See Resolution, San Carlos Apache Tribal Council, 10 Dec 1991 and 10 Jul 1990.

¹⁰²⁸ Norma Coile, "UA faculty letter critical of observatory plans," *Tucson Citizen*, 13 Feb 1990; Douglas Kreutz, "UA 'scorned laws' for scope OK, letter says," *The Arizona Daily Star* (Tucson), 13 Feb 1990; Rosemary J. Smith, Mark Fishbein, and David Carey, UA Department of Ecology and Evolutionary Biology, "Issue more than 'scopes vs. squirrels,'" letter to editor (signed by 11 faculty and 41 graduate students), *The Arizona Republic* (Phoenix), 18 Feb 1990; Coates, "Fervent battle pits science against nature, and leaves university divided."

¹⁰²⁹ Society for Conservation Biology, Resolution, 21 Jun 1991; Sign-on Appeal from the "Scientific Community," 7 Jul 1994; Petition signed by 50 European Astronomers (see News Advisory, "50 European Astronomers Sign Petition Opposing Mt. Graham Observatory," Edinburgh, Scotland, 8 Apr 1994).

¹⁰³⁰ Western Apaches and environmental protection groups were supported by resolutions and officials letters from international groups, cities, and tribal councils. For example, see North American Indian Support Groups, European meeting, Stadroda, Thuringia, Germany, "Resolution in Support of the San Carlos Apache Affected by a Planned Construction of a Telescope Complex on Mount Graham," 18 Jul

on UA's lack of ethics and its heavy-handed, steamrolling tactics.¹⁰³¹ Western Apaches were spurred on by such publicity and awareness.

1991; International Indian Treaty Council meeting (International Indian Treaty Council, USA; KOLA [Keep Our Lakota Aware], USA; KOLA [Keep Our Lakota Aware], Belgium; Leonard Peltier Defense Committee, Belgium; For Mother Earth, Belgium; Society for Threatened Peoples, Germany), "Resolution in Support of the San Carlos Apache Affected by a Planned Construction of a Telescope Complex on Mount Graham," Brussels, Belgium, 3 Nov 1991; Native American/Environmental Roundtable, "Resolution in Support of the San Carlos Apache Affected by a planned construction of a telescope complex on Mt. Graham, Arizona"; Press Release regarding the Native American/Environmental Roundtable; Keepers of the Treasures, resolution, 15 Nov 1991; Roman Schweidlenka (For the Earth, For Life—Working Circle Hopi-Austria) to the Apache Survival Coalition, letter, 2 Dec 1991; Refugio del Rio Grande Board of Directors, resolution, 23 Feb 1992; National Wildlife Federation to Manuel Pacheco, letter, 4 Mar 1992; Mohawk Nation, resolution, 19 Apr 1992; City Council of Rome, Italy, Motion regarding "Mount Graham," 28 Apr 1992; Tohono O'odham Legislative Council, "Resolution of the Tohono O'odham Legislative Council (Supporting the San Carlos Apache Tribe in Opposition of Mount Graham Telescope Project)," Resolution No. 92-177, 5 May 1992; Council of the Region of Piedmont, Italy, formal letter regarding "Tribal Council of the Apache" to Secretary of State of the Vatican and The Arcetri Astrophysical Observatory, Italy, 5 May 1992; Kaibab—Paiute Indian Tribal Council, "Resolution of the Kaibab Band of Paiute Indians; K-15-92," 21 May 1992 (24 Jun 1992); a petition signed by 15 San Carlos Apache spiritual leaders in Apr 1992 and another by twenty members of 20 Native nations during Holy Places Conference, 30 May 1992; Native Lands Institute, resolution, 31 May 1992; City Council of Florence, Italy, resolution, 1 Jun 1992; Salt River Pima—Maricopa Indian Community Council, Resolution No: SR-1562-92, 24 Jun 1992; Hui mālama i nā kūpuna 'o hawai'i nei, resolution, 12 Aug 1992; National Congress of American Indians, "Resolution to Save dzil ncha si an (Mount Graham)," Resolution No. EX DC-93-12, 18 Jan 1993; City of Pittsburgh, resolution, 5 Apr 1994; Arizona Game and Fish Commission, n.d.; Green Party of Italy, n.d.; Nature Conservancy, n.d.; San Xavier District of Tohono O'odham Nation, 4 Apr 1995; Tribal Council of the Jicarilla Tribe, resolution, 7 Nov 1995; Menominee Tribal Legislature, resolution, 16 Nov 1995; Unitarian Universalist Association of Congregations, resolution, Jun 1997. Along with support from the City of Rome, 50 members of the Italian Parliament, the President of Italy Oscar Luigi Scalfaro, 20 members of the German Bundestag, and 20 members of the European Parliament passed resolution or promised publically to support for Apache opposition efforts. See Apache Survival Coalition to Members of the European Parliament, letter, 3 Nov 1991; Lloyd Bald Eagle (KOLA [Keep Our Lakota Alive]; Lakota Organization for Human Rights, Cheyenne River Sioux Tribe) to Members of the European Parliament, letter 3 Nov 1991.

¹⁰³¹ Francis, "Mt. Graham should be protected from U of A"; Stan Bindell, "Apaches continue their struggle to stop the Mount Graham telescope," *The Navajo-Hopi Observer*, 9 Oct 1991; Sandra Rambler, "A determined, strong-willed Apache elder, says: 'Save Mount Graham,'" *San Carlos Apache Moccasin (KA'BUN)* (Globe, AZ), 22 Oct 1991; Stan Bindell, "Arizona Regents should hold meeting on San Carlos Apache Reservation," editorial, *The Navajo-Hopi Observer*, 19 Jun 1991; San Carlos Tribal Council opposes Mt. Graham telescopes," *The San Carlos Apache Moccasin* (Globe, AZ), vol. 6, no. 46, 17 Jul 1990; "History has many faces; some carved in mountains," editorial, *National Catholic Reporter*, 18 Jun 1989; Fred A. Buckles, Jr., "Chronology of U. Of Arizona Suppression And Denial of Mt. Graham Sacredness," *Tekakwitha Conference National Center Newsletter* (Great Falls, MT), Jul/Aug 1992; Nancy Wiechec, "Vatican astronomers willing to talk with opponents: Construction proceeds on telescopes atop Mount Graham," *The Catholic Sun* (Phoenix), 19 Jul 1991; Sandra Rambler, "Spiritual forms of life have existed on top of Mount Graham for centuries," *San Carlos Apache Moccasin* (Globe, AZ), 14 Feb 1995; Sandra Rambler, "Something is Wrong," *Catholic Telegraph* (Cincinnati), 30 Oct 1992; Sandra Rambler, "Vatican unwelcome on Apache mountain," *The Catholic Herald: The Newspaper for the Diocese of Colorado Springs*, 4 Nov 1992; Sandra Rambler, "On Mt. Graham,"

By late 1993, all U.S. partners had abandoned the project.¹⁰³² In the face of growing opposition and with the reality of losing so many existing and potential partners in the project, UA appeared desperate to move forward at any cost. On December 7, 1993, UA took inmates from the federal prison at the base of Mount Graham to clear cut at least 250 old-growth trees that were nearly two centuries old at a new location hundreds of feet away from the other two telescopes. In a news release, the Maricopa Audubon Society compared UA's actions to the attacks 52 years earlier on Pearl Harbor.¹⁰³³ The news release predicted the project's demise, and compared the astrophysical project to the ill-fated Cross Florida Barge Canal that failed in 1986 because "less destructive alternatives exist and the scientific basis for the project is flawed."¹⁰³⁴ UA's actions motivated Apaches and environmentalists to renew their opposition to the project.

Arkansas Catholic (Little Rock), 20 Nov 1992; Sandra Rambler, "Traditionally Speaking," *San Carlos Apache Moccasin* (Globe, AZ), 23 Aug 1994; Peter Aleshire, "Irony on Mt. Graham: Scopes or no, squirrels imperiled," *The Arizona Republic* (Phoenix), 29 Sep 1991; Hecht, "Endangered Species, Endangered Reputations"; "Red squirrels to astronomers"; Williamson, Jr., "Tunnel Vision"; Achenbach, "University of Arizona squirrelly concerning fate of Mount Graham."

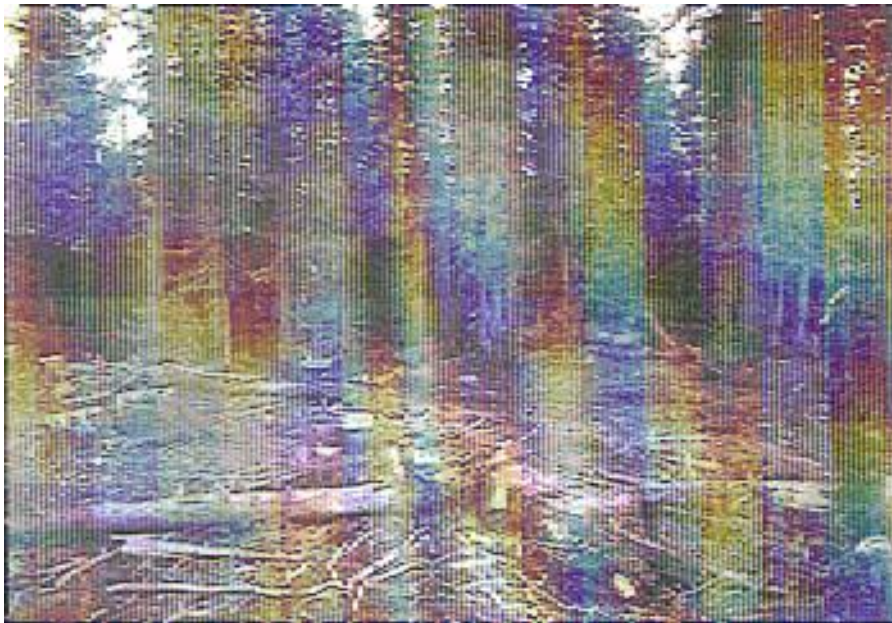
¹⁰³² Sal Salerno, "Proposed Mount Graham Columbus Project in trouble," *Northern Sun News* (Minneapolis), vol. 15, no. 3, Spring 1993, 4, 11. See also, Sal Salerno to author, personal communication, 20 Sep 2003.

¹⁰³³ Maricopa Audubon Society (Phoenix), "Covert Attack on Mt. Graham Old Growth Continues UA Legacy of Brutality against Cultural and Environmental Law," news release, 8 Dec 1993; Steve Yozwiak, "Construction freeze is upheld," *The Arizona Republic* (Phoenix), 25 Aug 1994, B4. See also, "Geronimo Lives Forever," flyer, n.d.

¹⁰³⁴ Maricopa Audubon Society, "Covert Attack on Mt. Graham Old Growth Continues UA Legacy of Brutality against Cultural and Environmental Law."



“Joe James, the observatory’s maintenance supervisor, looks over an area cleared on Mount Graham for one of the world’s largest telescopes.”¹⁰³⁵



Illegal clear-cut.¹⁰³⁶

¹⁰³⁵ Yozwiak, “Construction freeze is upheld,” B1; Mt. Graham Coalition, “Living Land, Sacred Land,” 76.



Dense forest after site preparation for the telescopes.¹⁰³⁷

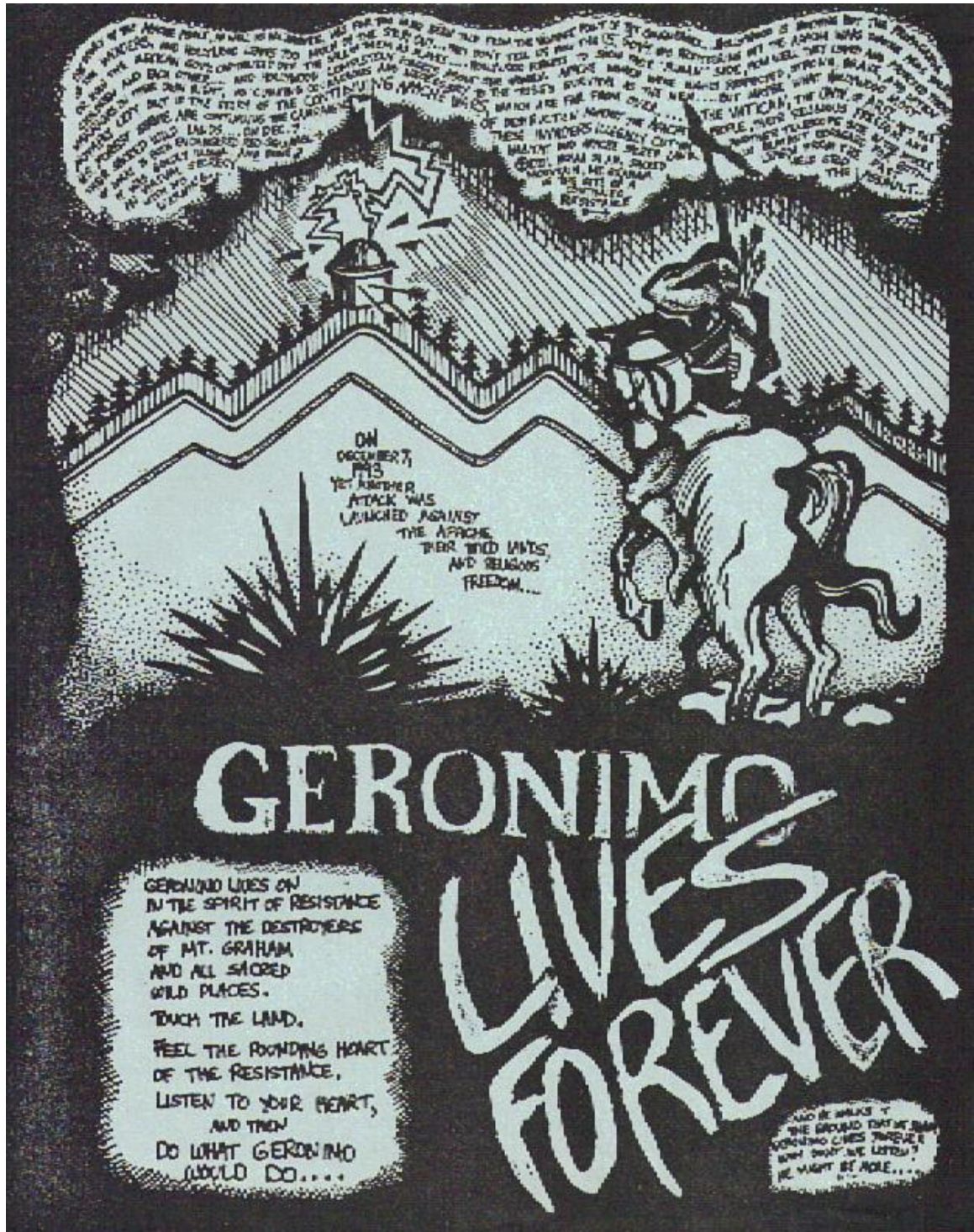
¹⁰³⁶ MacFarlane, Breck, and Galbreath, "The Battle Intensifies—Mt. Graham Can Be Saved," 2, 3; Mt. Graham Coalition, "Living Land, Sacred Land," 77c.

¹⁰³⁷ Thanks to Bob Witzeman for this photograph.



Close up photograph of telescope and road clearings.¹⁰³⁸

¹⁰³⁸ Thanks to Bob Witzeman for this photograph.



“Geronimo Lives Forever” flyer.

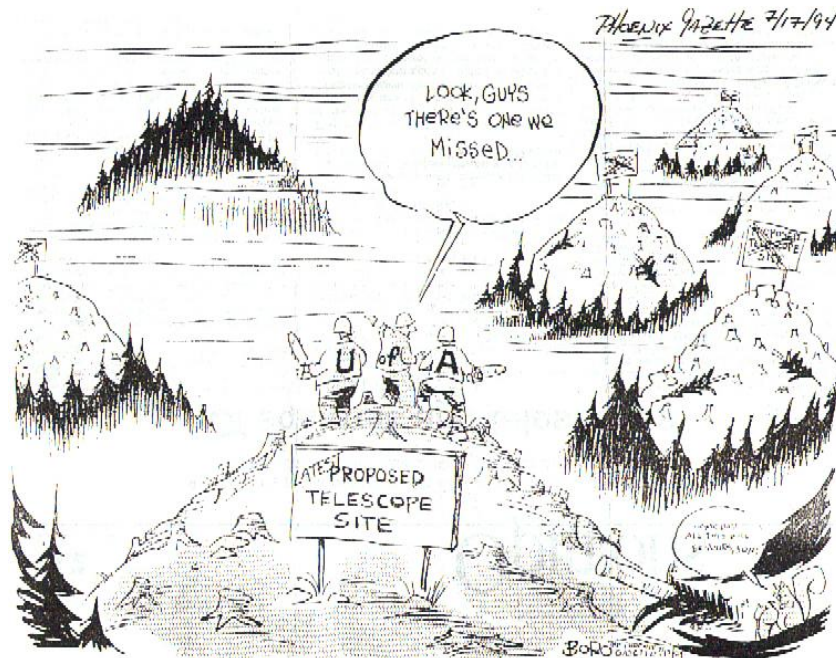
Because of the site change outside of the project's Congress-approved "footprint," in July 1994 a coalition of 18 environmental organizations sought from and was granted by Judge Marquez a request to halt construction of the third telescope, pending environmental studies by the USFWS.¹⁰³⁹ Although Judge Marquez had "ruled against the Mount Graham telescope opponents in a 1989 lawsuit filed by another coalition," he found their arguments "persuasive" in 1994.¹⁰⁴⁰ "I tend to agree with you," stated Marquez. He added, according to several newspaper accounts, that "it would have been prudent for the UofA to seek congressional clarification or to ask the courts to address the issue 'to get some advance answers.'"¹⁰⁴¹ At first he issued a 10-day restraining order. In late July, Marquez issued a permanent injunction.¹⁰⁴²

¹⁰³⁹ Arizona Wildlife Federation; Biodiversity Legal Foundation; Defenders of Wildlife; Friends of the Earth; Huachuca, Maricopa, Northern Arizona, Prescott, Tucson, and Yuma Audubon Societies; Humane Society of the United States; Mount Graham Coalition; National Audubon Society; Save America's Forests; Sierra Club of Arizona; Sky Island Alliance; Southwest Center for Biological Diversity; and the Student Environmental Action Coalition (Southwest Chapter).

¹⁰⁴⁰ Jim Erickson, "UA told to stop cutting trees on Mount Graham: Scope opponents win 10-day restraining order," *The Arizona Daily Star* (Tucson), 17 Jul 1994; "Of squirrels and scopes"; "Court orders a breather for Mount Graham."

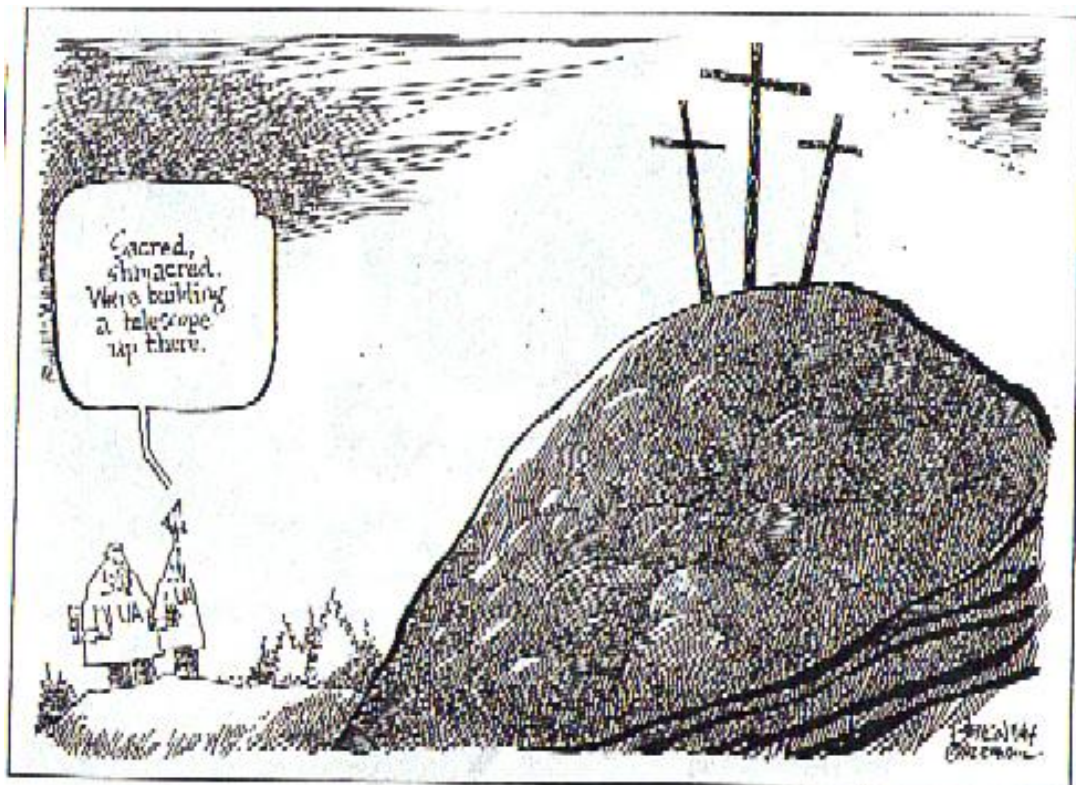
¹⁰⁴¹ "Of squirrels and scopes"; "Court orders a breather for Mount Graham."

¹⁰⁴² Jim Erickson, "Graham scope work barred pending further study," *The Arizona Daily Star* (Tucson), 29 Jul 1994.



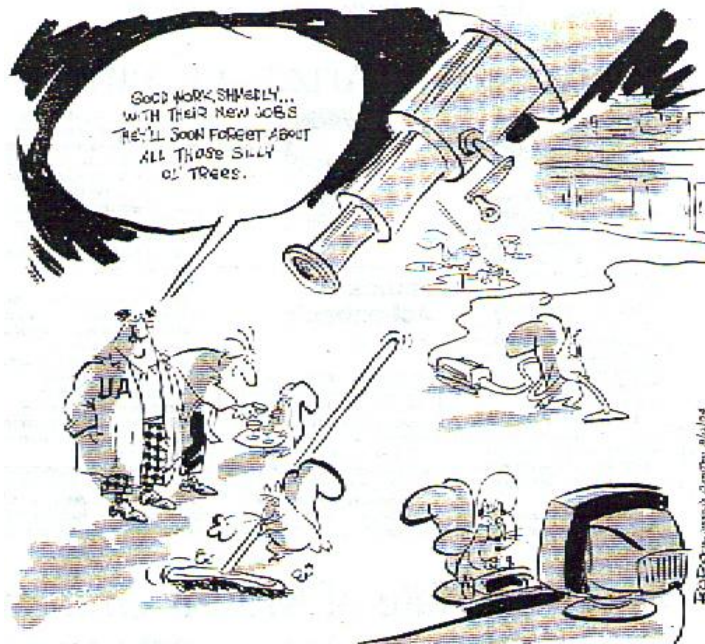
“Look, Guys There’s One We Missed.” The other peaks have signs that state, “Proposed Telescope Site,” while the squirrel father in the bottom right corner says to his son, “Some Day All This Will Be Yours, Son.”¹⁰⁴³

¹⁰⁴³ *The Phoenix Gazette*, 17 Jul 1994; See Mt. Graham Coalition, “Living Land, Sacred Land,” 74.

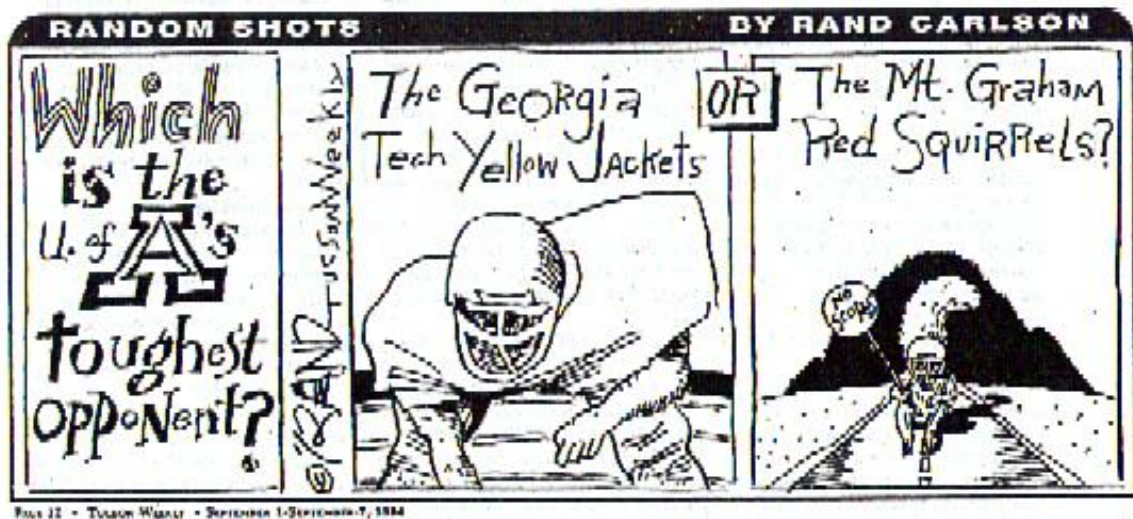


“Sacred, shmaged. We’re building a telescope up there.”¹⁰⁴⁴

¹⁰⁴⁴ “Benson’s View,” *The Arizona Republic* (Phoenix), 9 Aug 1994, B4. See Mt. Graham Coalition, “Living Land, Sacred Land,” 77D, 259.



“Good work, Shmedly ... with their new jobs they’ll soon forget about all those silly ol’ trees.”¹⁰⁴⁵



“Which is the U. of A’s toughest opponent? The Georgia Tech Yellow Jackets OR The Mt. Graham Red Squirrels?”¹⁰⁴⁶

¹⁰⁴⁵ BORO, *The Phoenix Gazette*, 12 Aug 1994; See Mt. Graham Coalition, “Living Land, Sacred Land,” 258.

¹⁰⁴⁶ *Tucson Weekly*, 7 Sep 1994; See Mt. Graham Coalition, “Living Land, Sacred Land,” 248.

By late August 1994, the U.S. Court of Appeals agreed with the ruling.¹⁰⁴⁷ “Judge Procter Hug questioned the university’s motive in removing the trees so quickly, saying it ‘sounds like the devil-may-care developer of a subdivision,’ who clears a construction site and then argues that since the environmental damage has been done, the project may as well proceed,” according to newspaper reporter, Jim Erickson; similar comparisons of the UA as developer were made by Bowden in 1989.¹⁰⁴⁸ UA attorney Todd argued that the tree cutting “was not disrespect for the environment—it was because there already were too many delays in the project.” The delays were inconvenient for UA. According to Erickson, “The UA ... asked the ... court to allow the work to continue until the matter is resolved,” an argument that made little sense to the environmental coalition, as well as the judges. Robin Silver interpreted the ruling for UA thus: “start packing up and moving.”¹⁰⁴⁹ Silver said, “this is just another nail in the coffin of a project that should never have gotten off the ground.”¹⁰⁵⁰ Despite a pending appeal by UA in which it was joined by the U.S. Department of Justice, the coalition that had fought so hard to have their arguments heard and won that they thought that the struggle for Mount Graham was over.

In April 1995, the 9th U.S. Circuit Court of Appeals upheld the lower court decision that construction could not proceed until the U.S. government biologists could complete environmental impact studies regarding the project. This latest victory left Silver asking “when will the university start acknowledging that it’s time to move on, find an alternative site, and start behaving like a university should: respecting preservation of special places and Indian people?”¹⁰⁵¹ UA continued to bemoan, in the

¹⁰⁴⁷ John Travis, “Scopes and Squirrels Return to Court,” *Science*, New Series, vol. 265, no. 5177 (2 Sep 1994): 1356.

¹⁰⁴⁸ Jim Erickson, “U.S. court halts UA telescope work at Mount Graham,” *The Arizona Daily Star* (Tucson), 25 Aug 1994.

¹⁰⁴⁹ Erickson, “U.S. court halts UA telescope work at Mount Graham.”

¹⁰⁵⁰ Yozwiak, “Construction freeze is upheld,” B1.

¹⁰⁵¹ Jim Erickson, “Appellate court upholds ban on telescope site: Project may go elsewhere,” *The Arizona Daily Star* (Tucson), 25 Apr 1995.

words of the vice president for research, Michael Cusanovich, the “endless cycle of delays.”¹⁰⁵²

In August 1995, the 9th U.S. Circuit Court of Appeals denied a request by the U.S. Forest Service for a rehearing of a lawsuit filed by Jack Ward Thomas, chief of the Forest Service, and the Arizona Board of Regents, to grant UA permission to continue site construction for the third telescope without the requisite NEPA and ESA studies. In response to the ruling, Nosie reiterated that the telescopes “desecrate the whole mountain.” Silver noted, “Now for the first time the Forest Service and university will have to lawfully and fully examine the environmental and cultural studies which they have fought so hard to avoid for the last 10 years.” A month earlier San Carlos Apache tribal history program manager, Dale Miles, told the Forest Service, “The San Carlos Apache Tribe considers the land form Dzil Nchaa Si’an (known as Mount Graham) to be a traditional cultural property and sacred site, eligible in its entirety for inclusion to the National Register of Historic Places,” a process that was set in motion years before any eligibility decision was made in 2002.¹⁰⁵³ For the time, the Apaches joined the environmentalists in celebration of what they thought would be the final word on the astrophysical development.

The editors of *The Phoenix Gazette* once wrote, the struggle for Mount Graham “is a story with episodic proportions sufficient to dwarf Homer’s tale of Ulysses and his Ithacan company.”¹⁰⁵⁴ But as is the case in this episodic history, UA was not done

¹⁰⁵² Erickson, “Appellate court upholds ban on telescope site.”

¹⁰⁵³ Brenda Norrell, “Court stops telescope plan: Council seeks protection of Mount Graham,” *Indian Country Today* (Southwest Edition), 21 Aug 1995. A number of other scholars over the years felt that Mount Graham was eligible for listing on the National Register as a TCP. For example, see Brinkley-Rogers, “Telescope sites focus on shrines,” B1, B19; Elizabeth A. Brandt, “Response to the Statements of the Vatican Observatory On the Mount Graham International Observatory and American Indian Peoples; and Statement on the Mount Graham International Observatory (MGIO), The Ecology of the Pinaleno Mountains, and Related Political Issues,” 5 May 1992, 2, 6. On July 12, 1995, the San Carlos Apache Tribe notified the USFS and the Arizona State Historic Preservation Office to include *dzil nchaa si’an* on the National Register. See also, McDonald, “Construction of Observatory on Mount Graham Would Violate Sacred Site, Indian Tribes Say,” A5; “White Mountain Apache Tribe passes resolution urging USFS to honor its duties to protect Mt. Graham,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 15, no. 7, 1 Sep 1999. For more information on TCP’s, see, Thomas F. King, *Places that Count: Traditional Cultural Properties in Cultural Resource Management* (Walnut Creek, CA: AltaMira Press, 2003).

¹⁰⁵⁴ “Court orders a breather for Mount Graham.”

fighting for its spot on the mountain. According to journalist Yozwiak, by late August 1995, UA demanded that Congress “must provide them with another exemption.”¹⁰⁵⁵ The main argument UA used was the fear that their German partners would withdraw from the project whose cost had jumped from \$60 to \$80 million, the same argument used by Senator McCain in 1988 to urge Congress to pass the first exemption. Charlie Babbitt, a board member of the Maricopa Audubon Society and brother of Interior Secretary Bruce Babbitt, stated that UA’s move was “pathetic.” Babbitt stated, “I think they fear additional study. They’re not willing to stand by and trust scientific, biological studies. Instead, they’re running off and trying to get the thing exempted by Congress again.”¹⁰⁵⁶ Nevertheless, Yozwiak noted that many telescope proponents felt that “Congress should not allow environmental laws to halt progress and economic development.” UA supporter Florence Nelson, director of the Desert Center in Scottsdale, said, “We already are the laughingstock of Europe.... To try to talk to our European investors about this ... and try to explain the Endangered Species Act, they say, ‘Well, does the whole world revolve around animals?’”

Representative Kolbe announced plans in late August to attach a rider to legislation already in the Congressional pipeline.¹⁰⁵⁷ Kolbe had argued that the 1988 legislation did not make UA “locked in” to a particular site on Mount Graham. Silver argued that Kolbe was, according to journalist Erickson, “rewriting history.”¹⁰⁵⁸ UA’s Cusanovich lobbied the local delegation and “suggested that I believe a legislative solution is an appropriate solution.” In that same month, the town of Thatcher and the board of supervisors for Graham and Cochise counties, “at the request of the U. of Arizona,” according to the San Carlos Apache tribal newspaper, “passed resolutions

¹⁰⁵⁵ Steve Yozwiak, “Deadline clouds telescope: Environmental exemption sought,” *The Arizona Republic* (Phoenix), 31 Aug 1995, A1.

¹⁰⁵⁶ Yozwiak, “Deadline clouds telescope.”

¹⁰⁵⁷ Jennifer Shecter, “Bill in Congress Would Aid U. of Arizona Telescope Effort,” *The Chronicle of Higher Education*, 2 Feb 1996.

¹⁰⁵⁸ Jim Erickson, “Kolbe to push completion of Mt. Graham telescope,” *The Arizona Daily Star* (Tucson), 24 Aug 1995.

calling for immediate action by Congress.”¹⁰⁵⁹ In 1996, according to environmental writer McNamee, “a tiny but significant sentence was buried” in the \$160 billion spending bill “that allowed for new telescope construction on Mount Graham without an EIS.” As McNamee noted, “Other riders that would have allowed increasing logging in Alaska’s Tongass National Forest and opening newly acquired federal holdings in the Mojave Desert to development were defeated, but the Mount Graham rider stood—despite a personal promise Bill Clinton made to leaders of the San Carlos Apache Nation that he would veto any such legislation.”¹⁰⁶⁰ In a bit of irony not uncommon in this struggle, “Mount Graham responded by catching fire nearly the minute the spending bill was passed into law.” The mountain “burned until the fire was contained at a point just below the telescope complex.”¹⁰⁶¹ Astrophysical development that had been tied up in legal wrangling for over one year was soon moving again toward completion. The second exemption gave Ohio State the wherewithal in 1997 to rejoin the project.¹⁰⁶²

This news was at the forefront of many Apache minds as tribal members met that month with German astronomers who hoped to join the project. Astronomers Gunther Hasinger of Potsdam and Rolf Peter Kudritzki of Munich agreed to meet with Apaches after San Carlos Apache Cassadore Davis met with astronomers in those cities and Wendsler Nosie visited the German Parliament in Bonn. The San Carlos Apache tribal council had as recently as June 13, 1995, passed a resolution rescinding a so-called “neutrality resolution” and reaffirming “opposition resolutions from 1989, 1990, 1991, 1992, 1993 and 1994.”¹⁰⁶³ Buoyed by this effort and spurred on by the announced second planned exemption, the Apaches grilled the German astronomers in two separate meetings. David Valenzuela, an Apache runner who participated in the Spirit of the Americas Run to Mexico City, was critical of the astronomers, as was Brad Allison. Allison questioned the “respect” of the astronomers. He argued that the astronomers were

¹⁰⁵⁹ Erickson, “Kolbe to push completion of Mt. Graham telescope.” See also, “German astronomers meet with Apache Survival Coalition,” *San Carlos Apache Moccasin* (Globe, AZ), 29 Aug 1995.

¹⁰⁶⁰ McNamee, “Mountain Under Heavens.”

¹⁰⁶¹ McNamee, “Mountain Under Heavens.”

¹⁰⁶² Lore, “Gee OKs bid for big scope.”

¹⁰⁶³ “German astronomers meet with Apache Survival Coalition.”

there for “greed, envy, lust. They want gold, copper.... You have no business in the sky.” Questioned Allison, “What are you hiding in your heart that you are afraid of?”¹⁰⁶⁴ In an opinion column, Sandra Rambler wrote, “Hasinger answered that this was a different type of religion for them and that astronomy was a way of life for them.”¹⁰⁶⁵ In fact, Hasinger replied, “We look differently at the stars.... [T]his is our religion.... Every improvement we have has to do with science.” Pointing to Mount Graham, Allison retorted, “The spirit is in the rock.... Up there things do not belong, so stay away from it. Go away, leave us alone.”

At a second meeting on the reservation, Nosie stated, “This is a fight for religion.... You will be a part of the destruction of a people and a race.” Andrew Burdette, Sr., pointed to the unanimous 1993 opposition resolution of the National Congress of American Indians, representing nearly all North American Indian tribes before he exclaimed, “We can’t negotiate this.” Evangeline Rohrige, Chad Smith, and Paul Nosie, Jr., asked the astronomers not to join the project. “I have not seen any attempt by the University of Arizona, Max Planck (Germans) or the Vatican to make a special point to consult with the Apache People. The Apaches have fought desperately to be heard. Only bogus studies have been made. Not a single serious effort has yet been made,” stated anthropologist Basso, who had been invited to attend the meeting. “The laws of mechanics (astrophysics) may be as enduring as the laws of humanity. What is being contested is the laws of respect, laws of compassion, laws of courteousness, and laws of consideration. They all have been violated here repeatedly. You could strike a blow for the whole of these if you heeded to what is being said here today to you,” Basso told the German astronomers. “The two German astronomers proposed a long list of bribes to the Apaches just as President Pacheco ... did when he came to the reservation in 1991,” wrote an author for *Moccasin*, the San Carlos Apache tribal newspaper. Former San Carlos councilman, David Thompson, summed up the feelings of many Apaches: “stay off that mountain. Before the White man came this was Apache country. This is our

¹⁰⁶⁴ “German astronomers meet with Apache Survival Coalition.”

¹⁰⁶⁵ Sandra Rambler, “Traditionally Speaking,” *San Carlos Apache Moccasin* (Globe, AZ), 29 Aug 1995.

country, our land.”¹⁰⁶⁶ Rambler wrote, “these guys were laid back and would occasionally snicker to one another. Is that respect?”¹⁰⁶⁷ Apaches recalled the racist attacks, arrogance, distortions of truth, and direct lies years earlier by Max Planck astronomers Mezger and Nigel Keen upon their beliefs.¹⁰⁶⁸ When in 1994 the Max Planck director Hans Zacher referred to the “cultist concerns of ... natives,” Apache Ernest Victor reminded the Apaches that “Max Planck fueled much of the science brains for Hitler’s war machine.”¹⁰⁶⁹ The 1995 visits of the German astronomers left a bad taste in the mouths of Apaches and proved again to Apaches that in this case, the arrogance, disrespect, bribery, and the religion of Western science were always foremost in the actions of astronomers and research institutions over indigenous peoples’ pronouncements and ways of knowing.

Jack Thomas, the Chief of the Forest Service, seemed to go along with the destruction on Mount Graham, despite prodding by Interior Secretary Bruce Babbitt and Justice Department’s Peter Coppelman to delay the clear cutting and site clearing on Mount Graham “pending renewed consultation” among all affected parties in June 1996. After speaking with Mark Gaede, Deputy Assistant Secretary of Agriculture, Thomas stated that he “hope[d]” UA “would ... finish clearing the site” because “This whole issue has dragged on too long.”¹⁰⁷⁰ He said that the squirrel was “a ploy” used by environmentalists “to preclude construction of a third telescope.”¹⁰⁷¹ He stated that John McGee, forest supervisor of the Apache National Forest, was being “‘worked over’ by Department of Justice lawyers, who are conveying the message that the White House does not want the telescope constructed there and, therefore, McGee should stop

¹⁰⁶⁶ “German astronomers meet with Apache Survival Coalition.”

¹⁰⁶⁷ Rambler, “Traditionally Speaking,” 29 Aug 1995.

¹⁰⁶⁸ Quotes from the director of Max Planck Institute for Radioastronomy, Peter Mezger, and Max Planck radioastronomer, Nigel Keen, are found in the following sources: *Mainzer Rhein Zeitung* (Mainz), 19 Nov 1991; Nigel Keen, “It Does Not Concern a Sacred Mountain of the Apaches,” letter to editor, *Frankfurter Rundschau* (Frankfurt am Main), 18 Sep 1991; Nigel Keen to Theodor Rathgeber (Society for Threatened People), letter, 17 Oct 1991. For a response to Keen’s letter, see Robert Witzeman, letter to editor, *Frankfurter Rundschau* (Frankfurt am Main), 21 Sep 1991.

¹⁰⁶⁹ Ernest Victor Jr., “Apache chairperson refutes ‘cultist’ label,” *Arizona Daily Wildcat* (University of Arizona), 24 Aug 1994.

¹⁰⁷⁰ Jack Ward Thomas, *Jack Ward Thomas: The Journals of a Forest Service Chief*, Harold K. Steen, ed., (Durham, NC: The Forest History Society, 2004), 345-346.

¹⁰⁷¹ Thomas, *Jack Ward Thomas*, 329.

construction and reinstate consultation with the Fish and Wildlife Service.” Stated Thomas, “The Fish and Wildlife Service will, presumably, make the correct decision or at least slow down construction until after the November elections.”¹⁰⁷² According to Thomas, “This is a political issue.” Thomas asked McGee to keep him updated “so that I can warn the political as to what is coming down.”¹⁰⁷³ Politics were in favor of UA, even when governmental departments (for example, USFWS vs. FS, Interior vs. USDA, or the White House and Justice Department vs. FS) did not agree with one another. A federal court again cleared the way in June 1996 for telescope construction to resume.¹⁰⁷⁴

The Apaches and environmentalists caught a break in 1997 with President Clinton’s line-item veto of \$10 million in funding for the cash-strapped astrophysical development.¹⁰⁷⁵ As Witzeman put it in 1998, “President Clinton’s recent line-item veto of \$10 million for [the] Mount Graham telescope shows why this project always will be veto- and grant-rejection bait, as well as a public-relations nightmare for [potential investors]. Clinton’s veto was scientifically and economically sound.”¹⁰⁷⁶ But Clinton signed the 1996 Kolbe rider that enabled UA again to bypass ESA.¹⁰⁷⁷ Apaches and environmentalists took Clinton to task for breaking a promise he made to the San Carlos Apache Tribe to veto the Mount Graham rider on the Omnibus Appropriations Bill.¹⁰⁷⁸ In vetoing the \$10 million funding, the Clinton administration stated, “Given that NASA is already investing in a superior capability . . . [Mauna Ka’au in Hawaii], NASA should not

¹⁰⁷² Thomas, *Jack Ward Thomas*, 330.

¹⁰⁷³ Thomas, *Jack Ward Thomas*, 330.

¹⁰⁷⁴ “Federal Court Clears Way for U. of Arizona to Build Telescope,” *The Chronicle of Higher Education*, 28 Jun 1996.

¹⁰⁷⁵ Colleen Cordes, “Clinton Vetoes Earmark for Telescope Projects,” *The Chronicle of Higher Education*, 14 Nov 1997.

¹⁰⁷⁶ Witzeman, “Bring Mount Graham into much sharper focus.”

¹⁰⁷⁷ Donella H. Meadows, “The Republican Rider and the Mt. Graham Red Squirrel,” The Sustainability Institute, n.d., http://www.sustainer.org/dhm_archive/index.php?display_article=vn646squirrelled; Marvin Mull, Jr. (Tribal Vice-Chairman, San Carlos Apache Tribe) to President Bill Clinton, letter, 21 Dec 1995; Albert A. Hale (President, The Navajo Nation) to William J. Clinton, letter, 21 Mar 1996; The Navajo Nation, “Navajo Nation President Albert Hale Supports Apaches Opposition of Scopes Atop Mount Graham,” News Release, 22 Mar 1996; Jeffrey St. Clair and Alexander Cockburn, “Freedom’s Failure: Aliens Abduct Newt!” *Nature and Politics* (Minneapolis/St. Paul), 24 Jul 1996.

¹⁰⁷⁸ Marvin Mull, Jr. (San Carlos Apache Tribe) to President Clinton, letter, 30 May 1996; Gregory McNamee, “Mountain Under Heavens,” *terrain.org: A Journal of the Built and Natural Environments*, no. 8 (Autumn 2000), <http://www.terrain.org/articles/8/mcnamee.htm>.

fund the Arizona project.”¹⁰⁷⁹ Apaches and environmentalists applauded Clinton for this measure.¹⁰⁸⁰

Time and again during the 1990s, the struggle for Mount Graham would garner the attention of the public. Based on documents obtained through FOIA by the Southwest Center for Biological Diversity, UA had requested that the Forest Service grant it the authority to regulate American Indians who wished to pray on the mountain. In a letter from UA Steward Observatory’s B. E. Powell to the U.S. Forest Service, dated October 7, 1997, UA proposed the following stipulations:

1. Native Americans must request in writing to University employee Mr. John Ratje, Observatory Site Manager, at the Mt. Graham Observatory Office in Safford, Arizona at least two business days prior to the date requested for prayer.
2. Description must be made in writing for the exact area on the mountain where prayer will take place.
3. All members of the party must be bona fide Indians officially enrolled in a federally recognized Tribe.
4. All Indians must already have previously obtained permission for prayer from the U.S. Forest Service to enter the summit region above 10,000 feet (which is closed to members of the public except for the astronomers).
5. No Whites or other non-Indians will be granted permission from UA for prayer or meditation.¹⁰⁸¹

“We made a policy to make it clear to the public—or in this case, Indian people—that if they want to come in, we encourage that, but that we would make permits available to them,” said UA vice president Cusanovich regarding the issuance of “prayer permits.” Cusanovich continued, “It’s not meant to be restrictive. It’s meant to be inclusive.”¹⁰⁸² Apache people and their environmental allies did not see it that way and often compared UA’s actions to U.S. laws in past decades when Indigenous prayer, religion, and ceremonials were deemed illegal.

¹⁰⁷⁹ *Arizona Daily Star* (Tucson).

¹⁰⁸⁰ Raymond Stanley, Tribal Chairman, San Carlos Apache Tribe, to William J. Clinton, letter, 3 Dec 1997; Ramon Riley (Cultural Resources Director, White Mountain Apache Heritage Program) to President William J. Clinton, letter, 13 Nov 1997.

¹⁰⁸¹ B. E. Powell to U.S. Forest Service, letter, 7 Oct 1997; Mount Graham Coalition, “Permit to Pray?” News Release, 13 Aug 1998, <http://www.mountgraham.org/WhitePapers/PrayPermit.html>.

¹⁰⁸² Steve Yozwiak, “Could I see your permit to pray?,” *High Country News*, 31 Aug 1998, <http://www.hcn.org/issues/137/4404> (accessed 20 Apr 2009).

In 1997, San Carlos Apache Wendsler Nosie was arrested for praying on Mount Graham. He had gone to the high peaks to pray for his daughter's forthcoming Changing Woman puberty ceremony.¹⁰⁸³ He was arrested, but later acquitted in 1998.¹⁰⁸⁴ Although UA argued that the summit access road built in 1990 on federal public land was their road and their domain, they lost in court.¹⁰⁸⁵ The idea that they had to obtain a permit to pray was not lost on many Apaches. Their experiences recalled the words of the psychiatrist, philosopher, and revolutionary Franz Fanon: "All [the colonized subject] has ever seen on his land is that he can be arrested, beaten, and starved with impunity; and no sermonizer on morals, no priest has ever stepped in to bear the blows in his place or share his bread."¹⁰⁸⁶ Apaches experienced this firsthand at the outset of the reservation era that brought violence on behalf of white Europeans (Camp Grant Massacre), poor rations and living conditions (swamps, etc.), and the theft of sacred lands. Many Apache people felt that the prayer permits and Apache exclusion from the highest elevations of their sacred mountain was another signpost on the timeline of colonialism at the heart of this struggle.

Despite protestations that environmentalists and Western Apache people held up the astrophysical development of Mount Graham, UA and its research partners delayed the project by not being forthright about its plans, failing to complete studies regarding not only the selection of the mountain but also the location at which to site the telescopes, and halting the progression of regular studies regarding the environment and culture, all of which culminated in two Congressional exemptions that made UA a "pariah" in the eyes of many people, including American Indians, environmentalists, many biologists, and even some astronomers.¹⁰⁸⁷ In all of its actions, UA spoke for its longstanding

¹⁰⁸³ Barry Graham, "Sermon on the Mount," *Phoenix New Times*, 15 Jan 1998, <http://www.williamforemanpc.net/CM/Articles/Sermon-on-the-Mount.asp>.

¹⁰⁸⁴ UA lost on 20 Jan 1998 in State of Arizona Court for falsely arresting Nosie.

¹⁰⁸⁵ S. J. Wilson, "Have you got your permit to pray?" *The Navajo-Hopi Observer*, 21 Jan 1998; S. J. Wilson, "Nosie acquitted of trespassing," *The Navajo-Hopi Observer*, 4 Feb 1998; Jim Erickson, "Mt. Graham 'prayer permit' angers Apaches," *The Arizona Daily Star* (Tucson), 13 Aug 1998; Steve Yozwiak, "UA requires prayer permits for Indians on Mt. Graham," *Arizona Republic* (Phoenix), 15 Aug 1998; Thomas Stauffer, "University of Arizona, American Indians remain at odds about prayer permits," *Arizona Daily Wildcat* (University of Arizona), 25 Aug 1998.

¹⁰⁸⁶ Franz Fanon, "On Violence," *The Wretched of the Earth* (1961; New York: Grove Press, 2004), 9.

¹⁰⁸⁷ See comments by Peter Warshall in Dougherty, "Star Whores," as well as comments by Winona LaDuke during a press 2001 press conference at the University of Minnesota: University of Minnesota

partners, Arceti, Vatican, and Max Planck but also the institutions that joined and backed out or considered the project and went elsewhere. All of these institutions at one point took their steps from the UA propaganda playbook. UA delayed the project because it failed to do its homework from the outset, failed to let the approved biological and cultural studies run their course, denied the sacredness of the mountain, ran roughshod over the mountain and environmental and cultural laws, and spent large amounts of public money fighting against Apaches and environmentalists, lobbying Congress, and devising written plans to attack Apaches and their allies. UA delayed the project because it knew that Mount Graham was a marginal place for astronomy, it knew that the mountain was sacred to Western Apache people, and it knew that it was ecologically unique. The only way in which the astrophysical development could occur and move forward was to go outside of the law and set multiple precedents that harmed Apache people and the ecosystem. That UA took initiatives to get around laws and that UA took years to determine the best location for the telescopes proved that the selection of Mount Graham was based not on astronomy, environmental factors, or the best use of public funds; rather, UA's actions show that the selection was based predominately on the proximity of the mountain to Tucson and the convenient road to the top—and that the location on the mountain was obtained through political maneuvering, legal wrangling, and money.

The groups that opposed the astrophysical development atop Mount Graham rarely had a chance to halt the project. Even with pronouncements, actions, resolutions, protests, organizing, and the support of scientific, religious, cultural, human rights, and environmental protection groups, and governmental, national, indigenous, and international organizational programs such as the indigenous peoples and human rights groups at the United Nations, Apaches and environmentalists could not stop the telescope project.¹⁰⁸⁸ At several different times, UA illegally clear cut a number of sites with relict,

American Indian Student Cultural Center, "Mount Graham Press Conference" (Oak Folks Films), 10 Dec 2001.

¹⁰⁸⁸ Mr. Abdelfattah Amor, "Special Rapporteur Report: Religious Intolerance in the United States" [Full text at *United Nations High Commissioner for Human Rights* (Follow links to Commission on Human Rights Reports, 1999: United Nations Doc. #E/CN.4/1999/58/Add.1, 9 Dec 1998)]. See "Section II.C.

old-grown trees on Mount Graham, without penalty. In at least four instances, UA harmed and destroyed specific sacred places while surveying and clearing sites on the mountain.¹⁰⁸⁹ Although the courts determined that arguments of Apaches and environmentalists had “merit,” they never were able to hear the case based on its “merits.” Cases were often dismissed because they were supposedly filed too late. Such was the case of the episodic struggle for Mount Graham, one of the world’s sacred and ecologically unique places. As activist Giovanni Panza once wrote, “It happened at Big Seated Mountain [*dzil nchaa si’an*].”¹⁰⁹⁰

Conclusion

If Apaches and environmentalists had read the astronomy news of the day or been tipped off by the U.S. Forest Service, other governmental organizations, or the various research partners, including the Smithsonian, they would have learned about the proposed

Situation for Native Americans,” which is also found at:

<http://www.nativeweb.org/pages/legal/intolerance.html>, accessed 18 April 2009. Also see, Associated Press, “Report calls for protection of sacred sites,” *News From Indian Country* (Rapid City, SD), 14-21 Jun 1999; “Big Mountain elders address UN rep,” n.d., n.p.; Mark Shaffer, “Envoy hears from tribes on persecution,” *The Arizona Republic* (Phoenix), 5 Feb 1998; Associated Press, “U.S. must do more to protect Indian culture, U.N. visitor says,” *The Arizona Republic* (Phoenix), 18 Mar 1999, A10; Associated Press, “U.N.: Protect Indian Sites in U.S.,” 17 Mar 1999; Daniel Zapata, “Statement at Working Group on Draft Declaration on behalf of Mount Graham,” Working Group on Indigenous Peoples, United Nations, 4 Dec 1998, www.netwarriors.info/graham.html, accessed 21 Feb 2004; Ola Cassadore Davis, “Statement and Petition to the United Nations To Protect the Indian Sacred Site, Dzil Nchaa Si An (Mount Graham)” (read by Daniel Zapata, Peabody Watch Arizona, 29 Jul 1999), Agenda Item 5: Principle Theme: Indigenous Peoples and their Relationship to Land, Sub-Commission on Prevention of Discrimination and Protection of Minorities, Working Group on Indigenous Peoples, United Nations Commission on Human Rights, Seventeenth Session, 26-30 Jul 1999; Uncle Jake, “Statements from Dineh and Hopi Resisters,” *Synthesis/Regeneration*, vol. 26 (Fall 2001), www.greens.org/s-r/26/26-05.html, accessed 21 Feb 2004; Kee Watchman, International Treaty Council, address to the United Nations Human Rights Commission Fifty-seventh Session, 19 Mar-27 Apr 2001, Agenda Item 11 (e) Religious Intolerance; Giancarlo Barbadoro, declaration, Working Group on Indigenous Populations, United National Commission for Human Rights, 22-26 Jul 2002, www.eco-spirituality.org/eonu-gb.htm, accessed 21 Feb 2004. See also, U.S. Human Rights Network CERD Working Group on Indigenous Peoples, “Response to the Periodic Report of the United States to the United Nations Committee on the Elimination of Racial Discrimination,” Feb 2008, www.ushrnetwork.org/files/ushrn/images/linkfiles/CERD/5_Indigenous%20Peoples.pdf, accessed 18 Apr 2009. See also, Giancarlo Baradoro and Rosalba Nattero, *Natural Peoples and Ecospirituality: From the Native Americans’ Mount Graham Case to the Historical Reality of the Native Europeans, A Peace Proposal for All Humanity*, 3rd ed. (Torino, Italy: Triskel, 2004), 87.

¹⁰⁸⁹ Panza, “The Impaling of Apache Holy Ground,” 10. See also Vine Deloria, Jr., *God is Red: A Native View of Religion* 2nd ed. (1972; Golden, CO: Fulcrum Publishing, 1992), 282.

¹⁰⁹⁰ Panza, “The Impaling of Apache Holy Ground,” 4, 31.

astronomical development by the early 1980s. The current, ongoing struggle for Mount Graham began very early by congressional machinations, academic lobbying and maneuvering, and a constant jockeying for position by all parties involved. In March 1992, Charlie Babbitt, president of the Maricopa Audubon Society, stated, “The message that Mount Graham sends is that if you are aggressive enough, if you are well-financed enough, and if you have enough political connections, you can get your project done, the environmental laws of this country notwithstanding.”¹⁰⁹¹ Indeed, the entire history of Mount Graham since the early nineteenth century is one of outside forces doing what they want to do as they go about imposing their will on an Indigenous population and a sacred, natural landscape—a place that is sacred to the Western Apache people. In the most recent struggle, Apaches and environmentalists regularly watched as astronomers, elected government officials, university officials, and representatives from UA, Vatican, and Max Planck, as well as other partners in the astrophysical development, habitually prevaricated in order to get what they wanted.

As anthropologist Elizabeth Brandt pointed out, the colonial legacy with regards to nature and Apache tribes is not an insignificant factor. In fact, colonialism played a critical role in the struggle for Mount Graham:

On the reservation, Apache affairs were run by either the military commander or, later government appointed Indian agents. It was not until after 1934 with the passage of the Wheeler-Howard Act by the U.S. Congress which authorized elected Tribal councils should a tribe vote for them, that the [San Carlos Apache] Tribe had any formal tribal government. The first tribal council was elected in 1936, but even after this the San Carlos Superintendent continued to essentially run the affairs of the Tribe. Indeed there are complaints to the Federal Government that the Superintendent routinely ignored the wishes of the Apaches and did what he wanted to do. Thus the Apaches had no formal political voice to protest any actions of the Federal Government at the time that additional activities took place in the Pinaleño Mountains. Their reservation was repeatedly reduced in size with the Ft. Grant Apache reservation at the base of the Pinaleños being among the first to be abolished and then successive pieces of the White

¹⁰⁹¹ Hoye, “Charges fly in final debate over telescope controversy.” Thomas Rhodes and Paul Wilson similarly stated, “the lesson learned is that in natural resource conflicts concerning endangered species, the interests of those with superior power can dominate these environmental decisions.” See Thomas C. Rhodes and Paul N. Wilson, “Sky Islands, Squirrels, and Scopes: The Political Economy of an Environmental Conflict,” *Land Economics*, vol. 71, no. 1 (Feb 1995), 119.

Mountain/San Carlos reservation being carved off by Presidential Executive Orders. They were a people who were imprisoned with troops on their reservation. If they left it, they could be shot on sight and would be pursued by military troops. It is hard to imagine that people in this situation could do very much about what was happening in the mountains.¹⁰⁹²

But the Western Apaches, as noted by San Carlos Apache Wendsler Nosie, had not yet realized what had happened. They learned a different lesson altogether. “We thank the UofA. The UofA awakened us,” proclaims Nosie. If it had not awakened the Apache people, they would still be sleeping today and therefore participating, as Nosie puts it, “in their own destruction.” UA, in a way, did them a favor, as he tells it. Nosie talks about how the Western Apache people, particularly the San Carlos Apache Tribe, are in a period of “rebuilding.”¹⁰⁹³ Nosie pointed out to German astronomers in 1995: “We are not taking money or education. You’ve made the mistake of doing the wrong thing and you have awakened us.... The Apache clans are uniting and we are not going to stop.”¹⁰⁹⁴

Never have elected officials of the tribal council lent their support to telescope construction.¹⁰⁹⁵ And no issue before the San Carlos Apache tribal government has received more council and media attention since at least 1990 than its fight against UA/Vatican and partners. The struggle for their sacred, ancestral homeland allowed Apache people to come forward; assert their opposition to the telescope projects; lobby governments and academic institutions against participation in the MGIO; point out this egregious example of environmental, cultural, and religious persecution; and claim the mountain as their own, as traditional cultural property in 2002—all the while reasserting their culture, spiritual, and health and healing connections to Mount Graham. They are

¹⁰⁹² Brandt, “Response to the Statements of the Vatican Observatory On the Mount Graham International Observatory and American Indian Peoples,” 4-5. See also Harney, “Arizona telescope magnifies long oppression of Apaches.”

¹⁰⁹³ Wendsler Nosie to author, personal communication, 4 Aug 2003.

¹⁰⁹⁴ “German astronomers meet with Apache Survival Coalition.”

¹⁰⁹⁵ Lindgren to Pacheco, 2.

fulfilling an Indian “prophesy of the rebirth of the native people,” according to Nosie.¹⁰⁹⁶ One way to assert themselves was by taking a stand against the US federal government regarding sacred lands.¹⁰⁹⁷ They are also reconnecting with traditional activities, including running. Apaches created an annual “Mt. Graham Sacred Run” and participated in the 1992 International “Peace and Dignity Journeys” run to Mexico City in order to promote cultural awareness and solidify their opposition to the Mount Graham project.¹⁰⁹⁸ These efforts, among others, can be described as nothing less than “a new Apache uprising.”¹⁰⁹⁹

¹⁰⁹⁶ Wendsler Nosie made this statement while traveling in Europe to protest astrophysical development. See Apaches for Cultural Preservation, *Mt. Graham Sacred Run* video (Tempe, AZ: Strictly Native Entertainment, 2002).

¹⁰⁹⁷ Wendsler Nosie, “Testimony of Wendsler Nosie Sr., Chairman of the San Carlos Apache Tribe Before the U.S. House Natural Resources Committee (Subcommittee on National Parks, Forests and Public Lands), Concerning the Southeast Arizona Land Exchange and Conservation Act of 2007 H.R. 3301,” 1 Nov 2007, www.tucsonaudubon.org/conservation/testimony_nosie.pdf.

¹⁰⁹⁸ Apache Survival Coalition, “Apache Peace and Dignity Run for Mt. Graham,” news release, 31 Jul 1992; “Mount Graham run will be August 18,” *San Carlos Apache Moccasin* (Globe, AZ), 4 Aug 1992; Thompson, “Indian runners celebrating culture to pass through Valley,” *The Phoenix Gazette*, 13 Aug 1992; Steve Yozwiak, “Environment: Apaches’ ‘sacred run’ will protest telescopes,” *The Arizona Republic* (Phoenix), 14 Aug 1992; Dee Ralles, “Apache runners make ‘sacrifice’ for Mount Graham,” letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 21 Aug 1992; Apache Survival Coalition, “Apache Sacred Run Protests UofAZ/Vatican/German Desecration Of Mount Graham,” news release, 24 Aug 1992; “Apaches part of Americas run,” *San Carlos Apache Moccasin (Keban)* (Globe, AZ), 25 Aug 1992; “San Carlos Apaches join spiritual runs of Indians from Alaska to Argentina,” *Copper Country News*, 25 Aug 1992; “Apache in Americas run to Mexico City,” *San Carlos Apache Moccasin* (Globe, AZ), 3 Nov 1992; “Runners go cross country for sacred run,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 8, no. 44, 13 Jul 1993; “Mt. Graham Sacred Run draws Apache elders, runners, students,” *San Carlos Apache Moccasin* (Globe, AZ), 28 Jun 1994; G. Lyle Phillips, “The Apache have a special gift—to endure,” *San Carlos Apache Moccasin* (Globe, AZ), 28 Jun 1994; “Supporters gather at Mount Graham,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 9, no. 42, 28 Jun 1994; “Always running,” photograph, *San Carlos Apache Moccasin* (Globe, AZ), 5 Jul 1994; “San Carlos elders thank runners,” *The Navajo-Hopi Observer*, 6 Jul 1994; “San Carlos elders thank runners,” *The Navajo-Hopi Observer*, 6 Jul 1994; Leonardo Reichel, “Expulsión a Apaches de Montaña Sagrada: Proyecto de la Universidad de Arizona se apoderó de Graham Mountain,” *Prensa Hispana (The Hispanic Press)*, ed. 145, 14 Jul 1994, 1A, 6A; Brenda Norrell, “Mount Graham Sacred Run reveals spirit of sacrifice,” *Indian Country Today*, 4 Oct 2000; Brenda Norrell, “Mount Graham run ensures victory for sacred land: Scarring prelude to Bush’s energy policy, runners say,” *Indian Country Today*, 1 Aug 2001; S. J. Wilson, “Annual prayer run honors sacred mountain,” *The Navajo-Hopi Observer*, 12 Jun 2002; “Mt. Graham Sacred Run draws runners from many tribes around the world,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 18, no. 7, 24 Jul 2002; Mike Johansen, “Sacred run to mountain completed,” *Eastern Arizona Courier* (Safford, AZ), 24 Jul 2002, 5A; “Mt. Graham Sacred Run draws runners from several tribes,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 19, no. 11, 20 Aug 2003; Brenda Norrell, “Spirit in motion,” *Indian Country Today*, 21 Aug 2003; Apaches for Cultural Preservation, *Mt. Graham Sacred Run*. See also, Peter Nabokov, *Indian Running: Native American History & Tradition* (Santa Fe: Ancient City Press, 1987). See forthcoming work by historian Matthew Sakiestewa Gilbert (Hopi) about Hopi long distance

Since the Apaches were among the last indigenous holdouts against the U.S., it is fitting according to many Apache people that they are the first to fight for their holy spaces. As Nosie tells it, “it has not been that long” since the U.S. government put Apaches on government-created reservations and plotted their annihilation culturally, spiritually, and of course, physically. However, the time has not been long enough for the Western Apache people to have forgotten their traditions. The Apaches are again and always fierce in their opposition to injustice. Like the new tree and vegetative growth on top of Mount Graham near the sacred springs, it is up to the up-and-coming elders and the young children of today, as Nosie tells it, to finish the process that has been put into place by Apaches such as Wendsler Nosie, Cassadore Davis, Victor, Rambler, Franklin Stanley, and Ramon Riley, among many others. As activist Panza once wrote, “it took a mountain to bring the Apaches out of the reservation.”¹¹⁰⁰

The Apache history, the connections between the end of the nineteenth century and the end of the twentieth century, and all of the history in between, is the history of the U.S.. Indeed, their fight for their mountain, as Nosie puts it, is the most important history that should be imparted to the children of the tribe. While it is useful to learn about the past and to obtain through repatriation items lost over the years, it is most important that the children learn about Mount Graham. It is important that sunrise dances and ceremonies be conducted on the mountain, for example. Nosie and many other Apaches feel that strongly about Mount Graham.¹¹⁰¹

On April 30, 2002, the U.S. government validated what Apache medicine people and anthropological experts have said all along and determined Mount Graham eligible for listing to the National Register of Historic Places as a Traditional Cultural Property of the Western Apache people.¹¹⁰² Perhaps because of Apache people’s prayers, Max Planck

running, and Matthew Sakiestewa Gilbert, “Hopi Footraces and American Marathons, 1912-1930,” *American Quarterly*, vol. 62, no. 1 (Mar 2010): 77-101.

¹⁰⁹⁹ McNamee, “Mountain Under Heavens.”

¹¹⁰⁰ Panza, “The Impaling of Apache Holy Ground,” 37.

¹¹⁰¹ Wendsler Nosie to author, personal communication, 4 Aug 2003.

¹¹⁰² National Park Service, United States Department of Interior, “Determination of Eligibility Notification,” 30 Apr 2002; Patricia M. Spoerl, “Mt. Graham (*Dzil nchaa si’an*): A Western Apache Traditional Cultural Property Or Determination of Eligibility for the National Register of Historic Places,

Institute abandoned their Mount Graham telescope in June 2002. Although they cited the mountain as an unsuitable location for astronomy, something that no UA astronomer could deny, the Apaches knew that yet again the supernatural *gaan*, who live in the mountain, had yet again protected this sacred place.¹¹⁰³ Despite this new information, UA gained the University of Virginia (UVA) and University of Minnesota (UMN) as research partners in late 2002, proving yet again that despite victories for those environmental, Apache, and other groups that opposed the astrophysical development on Mount Graham, the episodic nature of the struggle for Mount Graham was such that neither side has ever been able to claim victory nor has momentum ever pointed toward one group for long. Even after its astronomers got what they wanted in the fall of 2002 in what many opponents felt was a foregone conclusion, UA continued to denounce the Apaches, environmentalists, activists, and any scholar who stood in their way.¹¹⁰⁴

Mount Graham's history is not a local study and it should therefore be of interest to scholars and activists working on similar issues in other areas. Indeed, the Apache's struggle is one that many Indigenous peoples have experienced. All over the U.S.—indeed, throughout the world—Indigenous peoples have seen their sacred places threatened by governments, mining and timber companies, housing developments,

Mt. Graham (*Dzil ncha si'an*),” (Safford Ranger District, Coronado National Forest, Arizona), May 2001; Patricia M. Spoerl, “Supplement to Determination of Eligibility for Mt. Graham (*Dzil ncha si'an*) Traditional Cultural Property,” 15 March 2002; Thomas Stauffer, “Historic status set for Mount Graham,” *Arizona Daily Star*, 21 May 2002; Tom Jackson King, “Feds back Apaches on Mount Graham,” *Eastern Arizona Courier*, vol. 114, no. 21, 22 May 2002; “Historic status for Mount Graham may help Apache fight observatory,” *Indian Country Today*, 29 May 2002, D1, D2; Michael V. Nixon to Dwight Metzger, email, 7 May 2002; “Mt. Graham group applauds designation,” *San Carlos Apache Moccasin* (Globe, AZ), 7 Jun 2002; Associated Press, “Mount Graham ruled eligible for historic status protections,” *News from Indian Country*, vol. XVI, no. 11 (mid Jun 2002). For criticism of the Determination of Eligibility listing, see Editorial, “End Run,” *Arizona Star Daily*, 22 May 2002; “Mount Graham belongs to everyone,” editorial, *Eastern Arizona Courier* (Safford, AZ), 29 May 2002. For an Apache response to the editorial, see also Franklin Stanley, “repeated untruths,” letter to editor, *Arizona Daily Star* (Tucson), 2 Jun 2002.

¹¹⁰³ Ruth Rogers, “Planck institute has quit telescope,” letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 17 Jul 2002; Tom Jackson King, “Scope loses partner: Germans cut level in radiotelescope; still back LBT,” *Eastern Arizona Courier* (Safford, AZ), 26 Jun 2002, 2A; Robert Witzeman to author, email, 12 Jun 2002; The Southwest Center for Biological Diversity, “Max Planck Withdrawal from Mt. Graham ‘very likely,’” News Release, 13 Jan 2000.

¹¹⁰⁴ Stuart Alan Becker, “Seeing on Mount Graham: The University of Arizona's telescopes help astronomers ‘see’ the universe. But the views of Mount Graham are as varied as the players in an ongoing battle for power,” *Tucson Weekly*, 5 Dec 2002.

tourism industries, and research universities. Like many other Indigenous groups, the Western Apache people have revered their land, as many community elders put it, “since time immemorial.” By seizing sites such as Mount Graham, institutions throughout the U.S. and Europe are overriding legitimate Indian claims to their spiritual practices and helping to erode sovereignty.

A character in an Oscar Wilde play once stated, “The truth is rarely pure and never simple.”¹¹⁰⁵ Similarly, history is not pure or spiritual or clean, and it is always complex. Moreover, as Wilde makes clear, history is rarely something that people want to own up to. Just as the US government fails to reconcile its colonial past and present, so do UA and its research partners fail to recognize and take responsibility for the ways in which they acted and continue to act like colonial powers. Perhaps astronomer Strom put it best when she said, “In their conquest of Mexico, it was common practice for the Spanish priests to build a church on top of the monumental pyramids of the local culture, as a symbol of domination and cultural superiority, as at Cholula. [UA astronomers] do not appear to have abandoned that strategy.”¹¹⁰⁶ Indeed, as the case of Mount Graham continuously shows, the issue is not about science versus religion. And in fact scientists are divided in this struggle. Rather, it is about the ways in which science is used and given superior status in arguments and decision making processes, how science is often given a blank check, how science is often infused with the power of politics, and the various ways in which colonialism is alive and well in the U.S.

As Gould noted, the crisis is here. The environment is suffering.¹¹⁰⁷ The traditional Apache people are suffering, even with the recent good news regarding the

¹¹⁰⁵ Oscar Wilde, “The Importance of Being Earnest: A Trivial Comedy for Serious People” (1895; Leipzig: Bernhard Tauchnitz, 1910), 36.

¹¹⁰⁶ Strom, “Mt. Graham and the University of Arizona Astronomers,” 8.

¹¹⁰⁷ Tom Beal, “UA-run observatory harms Pinaleños’ forest, enviros and Forest Service say,” *Arizona Daily Star* (Tucson), 8 Dec 2009; “Mt. Graham red squirrel still at risk,” editorial, *Arizona Daily Star* (Tucson), 8 Dec 2009; Tom Beal, “Undoing damage on Mt. Graham: Rare squirrels, observatory complicate \$7 million plan,” *Arizona Daily Star* (Tucson), 8 Dec 2009. Contrast the news articles from 2009 with plans in 1993 to protect the squirrels: “USFWS corrects mistake by opening mountain: Wants to set aside \$2 million to protect squirrels,” editorial, *Eastern Arizona Courier* (Safford), vol. 105, no. 23, 9 Jun 1993; Jim Erickson, “U.S. proposal would reopen Mt. Graham: Also calls for \$2 million to be spent on squirrels,” *The Arizona Daily Star* (Tucson), 2 Jun 1993, 1B. To see the anti-MGRS position: “Environmental juggling by USFW,” editorial, *Eastern Arizona Courier* (Safford), 9 Jun 1993.

mountain. The construction of telescopes proceeded only because of unprecedented exemptions of all environmental and cultural laws. Government biologists have warned that the endangered Mount Graham red squirrel is on the brink of extinction, and that the telescopes will destroy ten percent of its best remaining habitat. University presidents and research institutions that backed away from the Mount Graham International Observatory exercised good judgment by observing the expert advice of the international scientific community, Western Apaches, and environmental protection groups. In spite of the fact that many institutions backed away from this unsound project, enough universities and astronomical groups were able to put prestige, politics, money, and power, before ethics, science, and human, cultural, and environmental rights. Colonialism, or unequal power relations, won the day again, when in late 2002 both UVA and UMN joined the project. These relative newcomers to Mount Graham had nothing on the Vatican, which, despite protests, was undeterred in its efforts to stick with the project.

And men go about to wonder at the heights of the mountains, and the mighty waves of the sea, and the wide sweep of rivers, and the circuit of the ocean, and the revolution of the stars, but themselves they consider not.¹¹⁰⁸

—St. Augustine, *Confessions*

You must speak straight so that your words may go as sunlight to our hearts. Tell me, if the Virgin Mary has walked throughout all the land, why has she never entered the wigwam of the Apache? Why have we never seen or heard her?¹¹⁰⁹

—Cochise, Chiricahua Apache chief, 1866

¹¹⁰⁸ See Petrarch's fourteenth-century letter to the Monk Dionysius, titled "Concerning Some Personal Problems," as quoted in David Rothenberg, *Always the Mountains* (Athens: The University of Georgia Press, 2002), 4.

¹¹⁰⁹ Quoted in Peter Nabokov, ed., *Native American Testimony: A Chronicle of Indian-White Relations from Prophecy to the Present, 1492-2000*, revised ed. (New York: Penguin Books, 1999), 177; Virginia Irving Armstrong, *I Have Spoken: American History Through the Voices of the Indians* (Chicago: Sage Books/The Swallow Press, 1971), 96. Cochise also said, "I want to live in these mountains," a reference to the Dragoon Mountains that shows that Apaches used, lived on, and, in the case of Cochise, were buried (with his horse) on mountains. See John Annerino, *Apache: The Sacred Path To Womanhood* (New York: Marlowe & Company, 1998), photo 5.

“MORAL HIGH GROUND”: THE “POPE SCOPE,” ECCLESIASTICAL IMPERIALISM, AND VATICAN ATTACKS ON MOUNT GRAHAM¹¹¹⁰

A small bulldozer drives onto the paved boardwalk, in the direction of the basilica of Scherpenheuvel. People, dressed in orange overalls, are walking behind and in front of the bulldozer. The machine stops right in front of the entrance of the church. About ten young people unfold several banners and, in absolute silence, they put big cardboards on the ground. They don't speak one word, they don't say anything. On the cardboards we can read headings like “Mother Earth is our cathedral” and “The Earth is also sacred.” A girl is holding a board with “A church; a God; a mountain; a religion.” Suddenly a priest comes running out of the church. A guardian of the basilica is following him. The action-group must leave the church territory immediately.

Spokesman of the action, Pol D'Huyvetter, intervenes calmly. “Sir, can I give you this communiqué?” The priest refuses to take the letter, and repeats that the group must leave the church-grounds. D'Huyvetter replies: “Indeed, we do understand you. Just like you don't want us to occupy your grounds and tear down your church, the Indian people don't want their sacred grounds to be destroyed and expropriated.”

To which the priest answers: “I don't care, you must leave. Now I...” The action ends here.

“It was a success.” [D'Huyvetter] says, “It is this kind of awareness we want to pass on: to the [C]atholics a church seems [too] sacred, so no-one can touch this stone building. Well, the Indians in Arizona also have their sacred places; but up to this very day, people take these grounds away from them.”¹¹¹¹

No image better illustrates the contradiction of the Vatican's longstanding involvement on Mount Graham than the protest in mid-December 1991 at the famous Basilica of Scherpenheuvel in Belgium.¹¹¹² This action provided great street theater, allowed numerous activists the chance to see firsthand what was possible in terms of protest, and foreshadowed the countless references to sacred places globally, such as Saint Peter's Cathedral or the Wailing Wall, whose destruction would be unacceptable. The Basilica of

¹¹¹⁰ Jesuit astronomers lovingly refer to the Vatican Advanced Technology Telescope on Mount Graham as “The Pope Scope.” Among others, see, Dan Sorenson, “Mt. Graham's powerful new scope leaves all others in the cosmic dust,” *Arizona Daily Star* (Tucson), 6 Mar 2008.

¹¹¹¹ Press Release, “With Bulldozer Against Basilica in Scherpenheuvel Church Must Learn to Respect Indians,” Dec 1991, 1.

¹¹¹² Sal Salerno, “Vatican Denies Sacred Ancestry of Mt. Graham: U of Arizona Defends Exemption From All Environmental and Cultural Protection Laws,” *The Circle*, vol. 3, no. 4, Apr 1992, p. 24. See also, Judy Bailey, Project Censored 2003, “25. University of Arizona Desecrates Sacred Native American Site,” <http://www.projectcensored.org/static/1993/1993-story25.htm>, Accessed 4 March 2009.

Scherpenheuvel is arguably the most important Christian pilgrimage site in Belgium. During the Middle Ages, a sacred oak tree worshiped by pagans grew on top of a hill where the basilica now stands. A number of various miracles have been reported over the centuries at this sacred place to Roman Catholics.¹¹¹³

D'Huyvetter, a disarmament campaigner in Europe, has worked for groups such as For Mother Earth and Mayors for Peace. A press release from December 1991 stated, "All over the world people are organizing actions against the German Institute, as well as against the Vatican." According to D'Huyvetter, "We want to show the representatives of the church here what it would mean if the symbols of their religion would be taken away from them. That would hurt them, as much as it hurts the Native people in the United States."¹¹¹⁴

Clearly Native American sacred sites are under attack, or at the very least threatened, by the U.S. military, New Age disciples in search of mystical vortices, energy companies in search of cheap oil, coal, or natural gas, and universities who conduct research on mountains, for example. In essence, sacred places are threatened because of energy, so-called progress or road and dam building projects, and technology and science. The example of Mount Graham is noteworthy because of the role the Vatican has played in abusing a sacred place, marginalizing or working to silence the voices of entire American Indian tribes, fighting environmentalists, and rejecting the warnings from people who did not agree with their agenda—many of whom are themselves Catholic. What is fascinating about the events in Belgium in late 1991 is that, when coupled with what Jesuit astronomers said and did, they helped set in motion a series of protests and disagreements in 1992—designated by President George H. W. Bush and Congress as the "Year of the Native American Indian" to celebrate "their close attachment to the land"—between Apaches/environmentalists and the Vatican/University of Arizona (UA).

¹¹¹³ Michael Sizer to author, email, 24 Nov 2009.

¹¹¹⁴ Press Release, "With Bulldozer Against Basilica," 1. See Johan Soetemans, "Vlamingen in bres voor Indianen: Moeder Aarde is onze kathedraal," *Het Volk* (Gent, Belgium), 16 Dec 1991.

The case of the Vatican's involvement on Mount Graham shows that the competing cosmologies, ontologies, and epistemologies in this struggle have helped to create a complex web of alliances.¹¹¹⁵ For example, as Christian clerics and scientific astronomers assemble on one side of the battlefield, Apache traditionalists and environmentalists gather on the other side. These alliances illustrate a misplaced dichotomization of the fight over the mountain as one of "science" versus "religion."¹¹¹⁶ In fact, the environmentalists who rely on scientific methods are allied with the Apaches, while the Vatican is allied with the astronomers.¹¹¹⁷ The history of the struggle for Mount Graham speaks to and destabilizes conventional understandings of the separation between science and religion as conceptualized by anthropologist Bronislaw Malinowski, and creates the need to complicate the relationship between these concepts in a way that is similar to other scholars, such as Paul Feyerabend, Renato Rosaldo, Vine Deloria Jr., and Gregory Cajete.¹¹¹⁸ As anthropologist Charles Kaut wrote, "My own experience in working with some [Apache] people in their 70s in 1953-54 (and the marvelous things

¹¹¹⁵ See important comments regarding these alliances: Father Ron Meyer to Cardinal Castillo Lara, letter, 4 Apr 1992, 2-3.

¹¹¹⁶ Among other recent articles, see Deborah Locke, "Religion vs. Science," *St. Paul Pioneer Press*, 31 Jan 2002; Sara Hebel, "On a Mountaintop, a Fight Between Science and Religion: Universities weigh support for a telescope project on land American Indians consider sacred," *The Chronicle of Higher Education*, 28 June 2002, A21-22; Roger Geertz Gonzalez, "Land as Sacred as a Church," letter to editor, *The Chronicle of Higher Education*, 2 Aug 2002; Deborah Locke, "To the Point: Telescope Project: where religion, science collide," *St. Paul Pioneer Press*, 9 Oct 2002.

¹¹¹⁷ Alfonso Ortiz, "American Indian Religious Freedom: First People and the First Amendment," *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), vol. 19, no. 4 (Winter 1996).

¹¹¹⁸ See Bronislaw Malinowski, "The Role of Magic and Religion," in William A. Lessa and Evon Z. Vogt, eds., *Reader in Comparative Religion*, 4th ed. (1931; New York: Harper and Row, 1979), 39, 41-42, 67, *A Scientific Theory of Culture and Other Essays* (1944; New York: Oxford University Press, 1960), and *Magic, Science, and Religion and Other Essays* (1948; Boston: Beacon Press, 1984). Compare with writings by Paul K. Feyerabend, *Against Method, Science in a Free Society* (1978; London: New Left Books, 1983), 19, 136, 217, 295, 298-99, *Realism, Rationalism and Scientific Method: Philosophical Papers*, vol. 1 (1981; Cambridge: Cambridge University Press, 1985), and *Problems of Empiricism: Philosophical Papers*, vol. 2 (Cambridge University Press, 1981); Renato Rosaldo, "Grief and a Headhunter's Rage: On the Cultural Force of Emotions," in S. Plattner, ed., *Text, Play, and Story: The Construction and Reconstruction of Self and Society* (Washington, D.C.: The American Ethnological Society, 1984), 178-195, and *Culture & Truth: The Remaking of Social Analysis* (Boston: Beacon Press, 1989); Vine Deloria Jr., *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact* (New York: Scribner, 1995), *Science & Reason: The Vine Deloria, Jr., Reader* (Golden, CO: Fulcrum Publishing, 1999), *Evolution, Creationism, and Other Modern Myths: A Critical Inquiry* (Golden, CO: Fulcrum Publishing, 2002); and Gregory Cajete, *Native Science: Natural Laws of Interdependence* (Santa Fe: Clear Light Publishers, 1999), 78.

[anthropologist] Grenville Goodwin left behind in his writings and journals) indicate that the mountains and all of nature (including humans) were conceptualized in a complicated ‘science’ we call ‘religion.’”¹¹¹⁹

* * * * *

In 1987, during a visit to the Southwest, Pope John Paul II stated, “I encourage you as native people belonging to the different tribes and nations in the East, South, West, and North to preserve your cultures, your languages, the values and customs which have served you well in the past and which provide a solid foundation for the future.”¹¹²⁰ His words stood in stark contrast to centuries of Vatican policies that had marginalized, subjugated, and killed millions of native peoples. Unfortunately, his words were uttered months before UA and its research partners, including the Vatican, began to lobby Congress to build telescopes on Mount Graham. The actions of the Vatican recalled Pope Alexander VI’s papal bull of 1493 (*Inter Caetera*) that stated the desire of the Catholic Church that “discovered” people be “subjugated and brought to the faith itself.” This “doctrine of discovery” sanctioned Christian nations to claim “unoccupied lands,” or lands belonging to “heathens” or “pagans.”¹¹²¹ According to Deloria,

¹¹¹⁹ Charles Kaut to author, email, 8 Jun 2002.

¹¹²⁰ Many newspaper articles cited the pope’s remarks, including Teresa Schuelke, “Indians told to keep culture,” *The Catholic Sun* (Phoenix), 24 Sep 1987; Harris Francis, “Mt. Graham should be protected from U of A,” letter to editor, *The Navajo-Hopi Observer*, 25 Sep 1991; Harris Francis, “The Letter Box,” letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 8 Oct 1991; Mark Genrich, “Promises: Apache heritage, endangered species are brushed aside,” *The Phoenix Gazette*, 8 Apr 1992; Mark Genrich, “Mt. Graham: Holy war for the Arizona mountaintop,” *The Phoenix Gazette*, 17 Jun 1992; Carolina Butler, “Sacred Apache mountain deserves Vatican’s respect,” *Tucson Citizen*, 5 Aug 1992; Native American Student Programs, “Mt. Graham: Vatican Declares Traditional Apache Religion Invalid!,” *NASP News* (University of California, Riverside), vol. 2, no. 1 (Fall Quarter 1992), p. 6. See also, “Should observatory be built; Some Apaches say ‘no,’” *San Carlos Apache Moccasin* (Globe, AZ), 12 Dec 1989; Jake Page, “The Conquest of Emerald Peak,” in *Sacred Lands of Indian America* (New York: Harry N. Abrams, Inc., 2001), 11.

¹¹²¹ Giancarlo Baradoro and Rosalba Nattero, *Natural Peoples and Ecospirituality: From the Native Americans’ Mount Graham Case to the Historical Reality of the Native Europeans, A Peace Proposal for All Humanity*, 3rd ed. (Torino, Italy: Triskel, 2004), 87. Regarding use of the Doctrine of Discovery in North America, see the important work by Robert J. Miller, *Native America, Discovered and Conquered: Thomas Jefferson, Lewis & Clark, and Manifest Destiny* (2006; Lincoln: Bison Books, 2008). Also see, Reginald Horsman, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism* (Cambridge: Harvard University Press, 1981); Robert A. Williams, Jr., *The American Indian in Western Legal Thought: The Discourses of Conquest* (New York: Oxford University Press, 1992); Robert J. Miller, “The Doctrine of Discovery in American Indian Law,” *Idaho Law Review*, vol. 42 (2005), 1-122; Lindsay Gordon Robertson, *Conquest by Law: How the Discovery of America Dispossessed Indigenous*

[Pope Alexander VI] laid down the basic Christian attitude toward the New World: “Among other works well pleasing to the Divine Majesty and cherished to our heart, this assuredly ranks highest, that in our times especially the Catholic faith and the Christian religion be exalted and everywhere increased and spread, that the health of souls be cared for and that barbarous nations be overthrown and brought to the faith itself.”

Continued Deloria, “What this pious language meant in practical terms was that if confiscation of lands were couched in quasi-religious sentiments, the nations of Europe could proceed.”¹¹²²



“Pope Paul, in Phoenix in 1987, tells Native Americans to ‘keep alive your cultures.’ In 1990 Vatican bulldozers are proceeding to desecrate Apache holy ground on Mt. Graham.”¹¹²³

Together with papal bulls issued by Pope Nicholas V, *Inter Caetera* helped usher in and serve as the justification for imperialism by sanctioning and promoting, according to anthropologist John Welch, “the conquest, colonization, and exploitation of non-Christian nations and their territories.”¹¹²⁴ *Romanus Pontifex*, an earlier Papal bull from 1455, sanctioned and promoted the slavery of Indigenous peoples and the theft of their

Peoples of Their Lands (New York: Oxford University Press, 2007); Steven T. Newcomb, *Pagans in the Promised Land: Decoding the Doctrine of Christian Discovery* (Golden, CO: Fulcrum Publishing, 2008).

¹¹²² Vine Deloria, Jr., *God is Red: A Native View of Religion*, 2nd ed. (1972; Golden, CO: Fulcrum Publishing, 1992), 255. See also, Vine Deloria, Jr., “Trouble in High Places: Erosion of American Indian Rights to Religious Freedom in the United States,” in M. Annette Jaimes, ed., *The State of Native America: Genocide, Colonization, and Resistance* (Boston: South End Press, 1992), 267-290.

¹¹²³ Coalition to Save Mt. Graham, “Save a National Biological Treasure: Mount Graham Scandal: A Story of Political Deceit and Environmental Lawbreaking,” brochure, Dec 1990, 6.

¹¹²⁴ See Welch, “A *dzil nchaa si’an* Chronology,” 3.

lands and natural resources, especially sacred places.¹¹²⁵ Native groups have constantly pointed out the disconnection between the pope's words in 1989 and the Vatican's actions and suppression of Western Apache voices during the 1980s and 1990s. Native groups have also called on the Vatican to revoke the papal bulls of 1452 (*Dum Diversas*), 1455, and 1493, but have had no success.¹¹²⁶

In an 1870 report, the Commissioner of Indian Affairs stated about the "Apaches of Arizona," that the "the Roman Catholic clergy are the only class of men they will not molest and whose counsels alone they will listen."¹¹²⁷ This is no longer the case. This chapter concerns itself first, and foremost, with the Vatican's involvement in the telescope projects on Mount Graham. It is important not to see the example of the Vatican's role in astrophysical development as a battle between a few people, namely Jesuit priests versus Western Apaches. Also of concern in this chapter are Jesuit astronomers' efforts to search for extraterrestrial life in outer space in the hopes that should they find such life, the Vatican will bring it within the fold of the Catholic Church. In other words, priests will baptize aliens. If this second investigation on the final frontiers—the colonization of space—sounds too unbelievable to be true, read on.

Cecil Rhodes, a noteworthy imperialist, the "founder of Rhodesia in Southern Africa and the man whose will established the Rhodes Scholarships," was reported to have stated, "I would annex the planets if I could."¹¹²⁸ As strange as such a proposition

¹¹²⁵ Steven Newcomb, "The Right of Christian Invasion," opinion, *Indian Country Today*, 31 Jul 2009, <http://www.indiancountrytoday.com/opinion/52186917.html>; Steven Newcomb, *Pagans in the Promised Land: Decoding the Doctrine of Christian Discovery* (Golden, CO: Fulcrum Publishing, 2008).

¹¹²⁶ See Catherine Walsh, "Native Americans call for an end to 500-year-old papal bull ('Inter Cetera' 1493 document)," *National Catholic Reporter* (Kansas City, MO), 22 Oct 1993. For a critique of papal bulls, among many other sources, see Wilcomb E. Washburn, *Red Man's Land, White Man's Law* 2nd ed. (1971; Norman: University of Oklahoma Press, 1995); Deloria, Jr., *God is Red*, 255 and 266; Huston Smith, *A Seat at the Table: In Conversation with Native Americans on Religious Freedom* (Berkeley: University of California Press, 2006), 192-93. See also, the "Declaration of Vision: Toward the Next 500 Years," a resolution passed at The Parliament of the World's Religions in Chicago in 1993: "Declaration of Vision," *Turtle Quarterly Magazine*, Fall-Winter 1994: 8. For a timeline of Indigenous resistance to papal bulls from the fifteenth century, see: <http://www.grandmotherscouncil.com/docs/timeline.pdf>, Accessed 20 Apr 2009.

¹¹²⁷ RCIO, p. 7, 1870.

¹¹²⁸ Quoted in John Bellamy Foster, *The Vulnerable Planet: A Short Economic History of the Environment*, rev. ed. (New York: Monthly Review Press, 1999), 87; Sarah Gertrude Millin, *Rhodes* (London: Chatto and Windhurst, 1952), 138. According to Foster, "Rhodes explained the motivation for British

might seem, Vatican scientists have been pondering this idea for a long time. Mary Doria Russell's popular science fiction novel, *The Sparrow*, describes the story of a Jesuit priest who leads an eight-person expedition to establish first contact with extraterrestrials on a newly discovered planet. *Commonweal*, the American journal of lay Catholics, wrote, "Russell subtly raises concerns about the ways in which sophisticated cultures tell themselves cover stories in order to justify actions taken at a terrible cost to others."¹¹²⁹ But the fact in some cases is more interesting than the fiction.

The history of the Vatican's colonial obsessions, as well as its interest and work in astronomy, had its beginnings well before the famous work and trials of Galileo.¹¹³⁰ The Society of Jesus was founded in 1540. During their centuries of service to the Catholic Church, Jesuits have often been at the forefront of the Vatican's support of science and have founded numerous universities, including some of the best in the United States. According to the Vatican,

Papal interest in astronomy can be traced to Pope Gregory XIII [pope from 1572-1585] who had the Tower of the Winds built in the Vatican in 1578 and later called on Jesuit astronomers and mathematicians to study the scientific data and implications involved in the reform of the calendar which occurred in 1582. From that time and with some degree of continuity the Holy See has manifested an interest in and support for astronomical research. These early traditions of the Observatory reached their climax in the mid-nineteenth century with research conducted at the Roman College by the famous Jesuit, Father Angelo Secchi, the first to classify stars according to their spectra. With these rich traditions as a basis and in order to counteract the longstanding accusations of hostility of the Church towards science, Pope Leo XIII in his *Motu Proprio Ut Mysticam* of 14 March 1891 formally refounded the Vatican Observatory [*Specola Vaticana*] and located it on a hillside behind the dome of St. Peter's Basilica.¹¹³¹

imperialism in this way: "We must find new lands from which we can easily obtain raw materials and at the same time exploit the cheap slave labor that is available from the native colonies. The colonies would also provide a dumping ground for the surplus goods produced in our factories." See Foster, *The Vulnerable Planet*, 87-88.

¹¹²⁹ Paul Q. Kane, "Jesuits far out," *Commonweal*, 124 (issue 24), 28 Feb 1997, 27-28; Mary Doria Russell, *The Sparrow* (New York: Villard Books, 1996); Mary Doria Russell, *Children of God* (1998; New York: Fawcett Books, 1999), esp. 38-39.

¹¹³⁰ Ellen K. Coughlin, "Research Notes: Galileo Said to Present His Discoveries to Favor Medicis," *The Chronicle of Higher Education*, 19 Sep 1990; "Footnotes: Galileo's Telescopes Said To Be of High Quality," *The Chronicle of Higher Education*, 15 Jul 1992.

¹¹³¹ http://www.vaticanstate.va/EN/Other_Institutions/The_Vatican_Observatory.htm. Accessed 15 Mar 2009. See also Sabino Maffeo, *In the Service of Nine Popes* (Vatican City: Pontifical Academy of Sciences, 1991); John R. Welch, "A *dzil nchaa si'an* Chronology" (updated 20 Jan 2008, photocopy), 7.

According to the Vatican Observatory, “three early observatories were founded by the Papacy: the Observatory of the Roman College (1774-1878), the Observatory of the Capitol (1827-1870), and the *Specola Vaticana* (1789-1821) in the Tower of the Winds within the Vatican.”¹¹³² The Vatican’s interest and efforts in science and astronomy were firmly cemented long before the recent actions of Jesuit astronomers in the United States.

Yet many concerned groups and activists in the United States and elsewhere fail to understand how the Vatican came to be partnered with the Mount Graham International Observatory. Castel Gandolfo, a small town a few miles southeast of Rome, is the pope’s summer residence. A sixteenth century monastery, Castel Gandolfo was renovated during the seventeenth century by Pope Urban VIII (pope from 1623-1644), the one-time friend, patron, and pope of Galileo. Castel Gandolfo has three domes—one of which is a church and the other two of which include telescopes. The Vatican Observatory, founded in 1936, moved its two telescopes from Rome to Castel Gandolfo during the mid-1930s to escape smog pollution.¹¹³³ The telescopes were used until the 1980s and while the headquarters for the Vatican Observatory is still located at Castel Gandolfo, its dependent research center, the Vatican Observatory Research Group (VORG), is hosted in Tucson by UA’s Steward Observatory.¹¹³⁴

While the Vatican has had a longstanding involvement in astronomical research, it also has been a party to notable scientific controversies. The story of Galileo Galilei (1564-1642), the mathematician, physicist, philosopher, and astronomer whose ideas and defense of heliocentrism—the theory that the sun is the center of the universe—threatened the Vatican for centuries, beginning especially in 1616. In 1633, Galileo was

¹¹³² http://vaticanobservatory.org/History_p1.html. Accessed 15 Mar 2009. See also, Jack Hitt, “Would You Baptize an Extraterrestrial? And Other Theological Questions Posed to the Jesuit Astrophysicists of Specola Vaticana—A.K.A. The Vatican Observatory of Turkey Flat, Ariz.,” *New York Times Magazine*, 29 May 1994: Section 6, 36-39, <http://www.nytimes.com/1994/05/29/magazine/would-you-baptize-an-extraterrestrial.html?> Accessed March 2009. See Welch, “A *dzil nchaa si’an* Chronology,” 3.

¹¹³³ George Johnson, “Vatican’s Celestial Eye, Seeking Not Angels but Data,” *The New York Times*, 22 Jun 2009, http://www.nytimes.com/2009/06/23/science/23Vatican.html?_r=1&ref=global-home. See Peter Warshall, “Finding Your Animal Ally: How a Squirrel Led Me to Congress and the Vatican,” *voices ... Articles from Conference Visionaries: Nature, Culture & Spirit*, www.bioneers.org/voices/01nature_culture/peter_warshall.html, accessed 13 Nov 2003.

¹¹³⁴ <http://vaticanobservatory.org>. Accessed 15 Mar 2009.

sentenced by the Inquisition; instead of putting Galileo to death, the Church effectively silenced him. By the late 1930s, when the Vatican had again renewed its interest in astronomy, the Vatican opened the door to an apology for its harsh treatment of Galileo.¹¹³⁵ Later, in 1990, Cardinal Ratzinger (who became Pope Benedict XVI in 2005) delivered a speech at La Sapienza University of Rome, in which he discussed the Galileo affair and cited philosopher Feyerabend to make a case that the Church was correct in the seventeenth century, “and revisionism can be legitimized solely for motives of political opportunism.”¹¹³⁶ Continued Ratzinger, who did not endorse an apology, “It would be foolish to construct an impulsive apologetic on the basis of such views.”¹¹³⁷ However, although it took more than 350 years, in October 1992, Pope John Paul II—as a result of a study conducted by the Pontifical Council for Culture—“apologized” for the Galileo affair and conceded that the Earth is not stationary.¹¹³⁸

Indeed, despite Pope Benedict XVI’s 2008 comments about Galileo, the legacy and feeling about Galileo has changed for the Catholic Church.¹¹³⁹ Interestingly, according to Kealoha Pisciotta, a native Hawaiian fighting against current and planned telescope developments on Mauna Kea, “The astronomy industry,” of which the Vatican is a part, “relies on an interesting canard—i.e., astronomy is good for humanity—to polarize and skew the issues—so that they end up claiming victim-hood—as if they are Galileo, simultaneously relegating [Indigenous Peoples] to the role of the ‘church’—against Galileo’s ‘true’ knowledge.”¹¹⁴⁰ 1992 was a noteworthy year for Vatican

¹¹³⁵ Discourse of His Holiness Pope Pius XII given on 3 December 1939 at the Solemn Audience granted to the Plenary Session of the Academy, *Discourses of the Popes from Pius XI to John Paul II to the of the Sciences, 1936-1986* (Vatican City: Pontifical Academy of Sciences, 1986), 34.

¹¹³⁶ Cardinal Joseph Ratzinger, *Turning Point for Europe?: The Church in the Modern World—Assessment and Forecast* (1991; San Francisco: Ignatius Press, 1994), 97-98. In 2008, citing their anger at perceived misuse by the Pope of Feyerabend’s words, scientists at La Sapienza University protested against a planned visit by the Holy Father to their school: CNN, “Galileo protest halts pope’s visit,” 15 Jan 2008, <http://www.cnn.com/2008/WORLD/europe/01/15/pope.protest/index.html>, accessed 15 Mar 2010.

¹¹³⁷ Ratzinger, *Turning Point for Europe?*, 98. See Paul K. Feyerabend, *Against Method* (1975; London: Verso, 1993); Paul K. Feyerabend, *Killing Time: The Autobiography of Paul Feyerabend* (Chicago: University of Chicago Press, 1995), 178.

¹¹³⁸ “Vatican Admits Galileo was right,” *New Scientist*, 1846, 7 Nov 1992.

¹¹³⁹ “Papal visit scuppered by scholars,” *BBC News*, <http://news.bbc.co.uk/2/hi/europe/7188860.stm>, 15 Jan 2008.

¹¹⁴⁰ Kealoha Pisciotta to author, email, 2 Nov 2008. See “Pope praises Galileo’s astronomy,” *BBC News*, <http://news.bbc.co.uk/2/hi/europe/7794668.stm>, 21 Dec 2008.

statements regarding Galileo, science, and Indigenous Peoples, especially Western Apaches in Arizona, but it also bore witness to significant protest against the Vatican by American Indians, environmentalists, academic scholars, people opposed to the Columbus quincentenary celebrations, and a number of Catholics and religious officials everywhere.¹¹⁴¹

In October 1992, when much of the protest against the Vatican reached its peak, Pope John Paul II arrived in Santo Domingo, Dominican Republic, and “pleaded ... with all native Indians of the Americas to forgive the white man for 500 years of injustices and offenses.” The pope acknowledged that “there is no doubt that European colonizers had inflicted ‘enormous suffering’ on Indians because they were not able to see them as children of the same God.” The pope said, “In the name of Jesus Christ and as pastor of the church, I ask you to forgive those who have offended you.”¹¹⁴² His remarks came one day after thousands of Indigenous Peoples throughout the Americas protested against the 500th anniversary of Christopher Columbus’ arrival in the Americas. That the Large Binocular Telescope on Mount Graham was to be completed in 1992 and that it was originally called the Columbus Project, was not lost on many of the Apaches and environmental activists. While it may be possible someday for Apaches to forgive the actions of the Vatican, in order to achieve some sense of healing, it is unlikely that many Apaches or environmentalists will ever forget the Vatican’s ongoing colonial legacy.

Indeed, the Vatican’s role on Mount Graham was not in keeping with its public statements regarding Indigenous Peoples, the environment, science, or sacred sites since the 1970s.¹¹⁴³ In his 1990 New Year’s message, for example, the Pope condemned

¹¹⁴¹ See Sal Salerno, “The Columbus Myth: A Divisive Means of Evading the Reality of History,” *The Circle* (Minneapolis), Oct 1992; Renee Charles, “Father taught reader about family values,” letter to editor, *The Navajo-Hopi Observer*, 14 Oct 1992; Carolina Castillo Butler to King Juan Carlos of Spain, letter, 30 Sep 1992. Some American Indians worked cooperatively with Italian American groups. See Bob Herguth, “Indians, Italians discover new world of cooperation,” *Chicago Sun-Times*, 11 May 1992, 4; Michel-Rolph Trouillot, “Good Day, Columbus,” in *Silencing the Past: Power and the Production of History* (Boston: Beacon Press, 1995), 108-140.

¹¹⁴² “Pope asks Indians to forgive whites,” *The Arizona Republic* (Phoenix), 14 October 1992.

¹¹⁴³ For example, see Pope John Paul II, “Peace with the Creator, Peace with all of Creation,” 8 Dec 1989, http://www.vatican.va/holy_father/john_paul_ii/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace_en.html, 1 Jan 1990; Susan Hines-Brigger, “Environmental Justice: A Call to Stewardship,” Apr 2002, www.americancatholic.org/Messenger/Apr2001/feature3.asp.

“radical deforestation,” despite the fact that the Vatican cleared relict, old growth trees on Mount Graham two months earlier.¹¹⁴⁴ “We are ... concerned about the negative consequences for humanity and for all creation resulting from the degradation of some basic natural resources such as water, air, and land brought about by an economic and technological progress which does not recognize and take into account its limits,” stated a declaration that the Pope signed in 2002. The document also declared, “Christians and all other believers have a specific role to play in proclaiming moral values and in educating people in ecological awareness, which is none other than responsibility toward self, toward others, toward creation.”¹¹⁴⁵ Statements from the Vatican regarding sacred lands, particularly with regards to Israel and Palestine, are many, but do not always translate into an acceptance or understanding of non-Christian sites.¹¹⁴⁶ In 2002, the Vatican released a statement that “called on the two sides to respect holy places.” The Vatican “condemned terrorism ‘wherever it comes from’” and their statement “noted the pope ‘rejects the unjust and humiliating conditions imposed on the Palestine people as well as reprisals and revenge attacks which do nothing but feed the sense of frustration and hatred.’” The Vatican “also pointedly emphasized the ‘need to put an end to all indiscriminate acts of terrorism.’”¹¹⁴⁷ The Vatican tried to talk the talk, but often failed to walk the walk. Even the first “green pope,” Benedict XVI, often criticized environmentalists.¹¹⁴⁸ With regards to Mount Graham, the Vatican at every step sought

Regarding “The American Catholic’s Tribute to Earth Day & Saint Francis of Assisi,” see also www.americancatholic.org/Features/Francis/earthday.asp.

¹¹⁴⁴ Coalition to Save Mt. Graham, “Save a National Biological Treasure,” 6; Maricopa Audubon Society, “Vatican and West Germany to Destroy Endangered American Squirrel,” news release, 29 Dec 1989. See also, Greg Erlandson, “Pope praises telescope project, notes ecology,” *The Catholic Sun* (Phoenix), 6 Jul 1989; William D. Montalbano, “Pope Warns of Global Ecological Crisis,” *Los Angeles Times*, 6 Dec 1989; Charles J. Babbitt, “Pope sends conflicting word,” letter to editor, *Eastern Arizona Courier* (Safford), 19 Dec 1989; Charles J. Babbitt, “Vatican should get off Mount Graham,” *The Arizona Republic* (Phoenix), 21 Dec 1989.

¹¹⁴⁵ Elena Becatoros, “Pope and ecumenical patriarch sign declaration on environment,” *Associated Press*, 11 Jun 2002.

¹¹⁴⁶ See Matti Friedman, The Associated Press, “Israeli path treads into heart of holy site dispute: Tensions run high at site revered by Jews, Muslims,” *Democrat and Chronicle* (Rochester, NY), 17 Feb 2007, 14A.

¹¹⁴⁷ *St. Paul Pioneer Press*, 4 Apr 2002.

¹¹⁴⁸ See Republic Wire Services, “Pope calls for religious freedom in Sudan: Muslim leader ‘has duty’ to Christians,” *The Arizona Republic* (Phoenix), 11 Feb 1993, B12; Alessandra Rizzo, Associated Press,

justification for conquest. In spite of recent progressive rhetoric, the Catholic Church remains an imperialist power, as revealed in its attempt to appropriate Apache land for astronomical research.

The Vatican Observatory: Galileo's Sons¹¹⁴⁹

Although “it all starts with Galileo,” Jesuit astronomer Father George Coyne’s role as the director of the Vatican Observatory since 1978 plays an even greater place in the history of the Vatican’s role not only in science but with regards to sacred places, Indigenous peoples, and especially Mount Graham. Coyne was at the forefront of the Vatican’s astronomical endeavors as the head of the Vatican Observatory during the most heated years of the struggle for Mount Graham.¹¹⁵⁰ Indeed, Coyne was the pioneer of a campaign by UA astronomers and Vatican representatives to marginalize the voices of Western Apache people, environmentalists, and concerned citizens.¹¹⁵¹ By “March 24, 1992, Father Timothy Broglio of the Vatican Secretary of State’s office confirmed that, the people in control at the Vatican, specifically Secretary of State Cardinal Sodano, ‘have determined that Father Coyne will handle the Mt. Graham situation.’”¹¹⁵² Such declarations confirmed that at the highest levels, the Vatican approved of Coyne’s efforts to comment on, work in opposition to, and enter lawsuits against Apaches.

Coyne first came into the spotlight in 1992 after San Carlos Apaches filed a lawsuit to halt construction of the telescopes. Coyne began commenting publically about the sacredness of Mount Graham, the Western Apaches who call the Arizona desert and

“Vatican slams ‘Avatar,’” 12 Jan 2010, http://www.huffingtonpost.com/2010/01/12/vatican-slams-avatar-prom_n_419949.html, accessed 18 Feb 2010; Donna Britt, “James Cameron’s ‘Avatar’ Is Many Things—but Not Racist,” www.politicsdaily.com/2010/02/04/james-camersons-avatar-is-many-things-but-not-racist/, 4 Feb 2010. See Daniel Stone, “The Green Pope: Benedict XVI has embraced environmentalism,” *Newsweek*, 17 Apr 2008.

¹¹⁴⁹ See the documentary film *Galileo's Sons*, 48 min., Bullfrog Films, Oley, PA, 2003.

¹¹⁵⁰ For a short review of the actions of Coyne and the Vatican, see John J. Campo and Alexiss A. Holden, “The Vatican Strikes Back,” a website prepared for a Native American Studies course at University of California, Davis, titled “Native American Community Development,” 3 Jun 1996, <http://cougar.ucdavis.edu/nas/varese/nas122/spring96/graham/vatican.html>, accessed 13 Nov 2003.

¹¹⁵¹ George V. Coyne to Kristy L. Lindgren, letter, 28 Jun 1992; George V. Coyne to Thomas Obermann, letter, 6 Jul 1992. In all private correspondence, Coyne obscured the truth regarding Apache tribal opposition.

¹¹⁵² “Mt. Graham: Vatican Declares Traditional Apache Religion Invalid!,” *NASP News: A Newsletter from UCR Native American Student Programs* (Riverside, CA), Fall Quarter 1992: 7.

mountains home, and the environmentalists who were working to protect Mount Graham. Coyne wrote a multi-page report titled “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples,” which was filed as an affidavit on March 5, 1992. He declared that Apaches were being used by “outsiders,” asserted that the San Carlos Apaches have never provided the Vatican with proof of the mountain’s sacred characteristics, marginalized the Apaches who brought the suit by stating that he did not think that they represented the entire San Carlos Apache Tribe, and avowed that he was willing to speak with Apaches: “The Vatican Observatory would like to learn about any such genuine concerns of *authentic* Apaches.”¹¹⁵³ In other documents, he avoided anthropologists’ concerns. He stated that Apaches had “irreconcilable views” regarding the mountain’s sacredness in order to create divisions or at the least exploit existing divisions by supporting the Apaches that best matched the Vatican’s interests. Coyne fabricated claims about the federal government supporting the endeavor since 1984. He also used smoke-and-mirror tactics to avoid discussing the fact that Mount Graham’s highest peaks were never logged, and are ecologically unique and completely different than the summer homes, campgrounds, fishing areas, and other locations on the mountain he mentioned that have been used for over 100 years.¹¹⁵⁴

Coyne’s comments immediately came under fire from numerous places. Activist Mark Lammers wrote the UA president: “The sanctity of the mountain should never have been questioned.”¹¹⁵⁵ Coyne’s comments were typical, historical statements that had been used before and after by people who wished to brush aside Indigenous claims about anything in order to justify their actions.¹¹⁵⁶ That he made his remarks in the same year as the quincentenary celebrations of Columbus’ arrival in the Americas, and with the

¹¹⁵³ George V. Coyne, The Vatican Observatory, affidavit, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples,” 5 Mar 1992, <http://vaticanobservatory.org/indian.html> (revised version, 8 May 1997), emphasis added. A copy of this document is still linked to UVA’s website as of 13 Nov 2003. See <http://clavius.as.arizona.edu/vo/indian.html>.

¹¹⁵⁴ George V. Coyne, “An Open Letter Particularly Addressed to the Non-Indian Members of the Apache Survival Coalition,” 30 Apr 1992, 1-4. Coyne’s letter was in response to a “News Advisory” from the Apache Survival Coalition, “Two Jesuit Priests in Arizona Have Joined a Lawsuit Which Contests the Religious Beliefs of the Apache Indians,” News Advisory, 17 Apr 1992, 1-3.

¹¹⁵⁵ Mark Lammers to Manuel Pacheco, letter, 24 Jun 1992, 1.

¹¹⁵⁶ Colman McCarthy, “Vatican project bulldozes Apache religion,” *The Seattle Times*, 5 May 1992, A14.

backdrop of intense protests against Columbus Day in Arizona, was remarkable in that, to many activists and Apaches, it showed how little the Vatican had come since its papal bulls of centuries earlier. “The Jesuits, not the cavalry, have, at least in some quarters, been defined as the true shock troops of Manifest Destiny,” wrote one columnist.¹¹⁵⁷ Meetings with “authentic Apaches” were denied on multiple occasions throughout 1992. But what caused possibly the greatest stir was that a Jesuit astronomer presumed that he was able to authoritatively comment on the sacred character of an Apache sacred place. His actions, writings, and public statements caught the attention and ire of a number of Apaches and environmentalists, and more generally people who were appalled by Coyne’s condescension.

According to Coyne, “We are not convinced by any of the arguments thus far presented that Mt. Graham possesses a sacred character which precludes responsible and legitimate use of the land.” Coyne stated that Mount Graham “is a gift from God to be used with reason and to be respected.” He asserted that, “we believe (our) responsible and legitimate use of [this] land enhances its spiritual character.” To take on the environmental groups that had joined the Apaches in their struggle, but whom Coyne felt were using the Apaches, he proclaimed, “No mountain is as sacred as a human being and there is no desecration more despicable than the use of a human person for self-serving purposes”—an interesting comment, given the Vatican’s later use of Apaches who agreed with its actions.¹¹⁵⁸ To Coyne, “I do really believe the greatest desecration there is is to utilize another human being for one’s own ends. I make these statements strong, but I am not accusing any one person.”¹¹⁵⁹ Coyne claimed in his declaration:

After extensive, thorough investigations by Indian and non-Indian experts, there is to the best of our knowledge no religious or cultural significance to the specific observatory site. If the objection is pressed on the grounds that the observatory is merely on the mountain, then, why has there been no outcry concerning far more

¹¹⁵⁷ Woody Kipp, “Romes [sic.] Blind Eye,” *On Indian Land* (Seattle, WA), Fall 1993.

¹¹⁵⁸ Coyne, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples”; Salerno, “Vatican Denies Sacred Ancestry of Mt. Graham, 24.

¹¹⁵⁹ David Hoye, “Mount Graham not holy site, Vatican says,” *Phoenix Gazette*, 12 Mar 1992, A1-A2.

widespread encroachment on other, higher peaks and on demonstrable prehistoric sites?¹¹⁶⁰

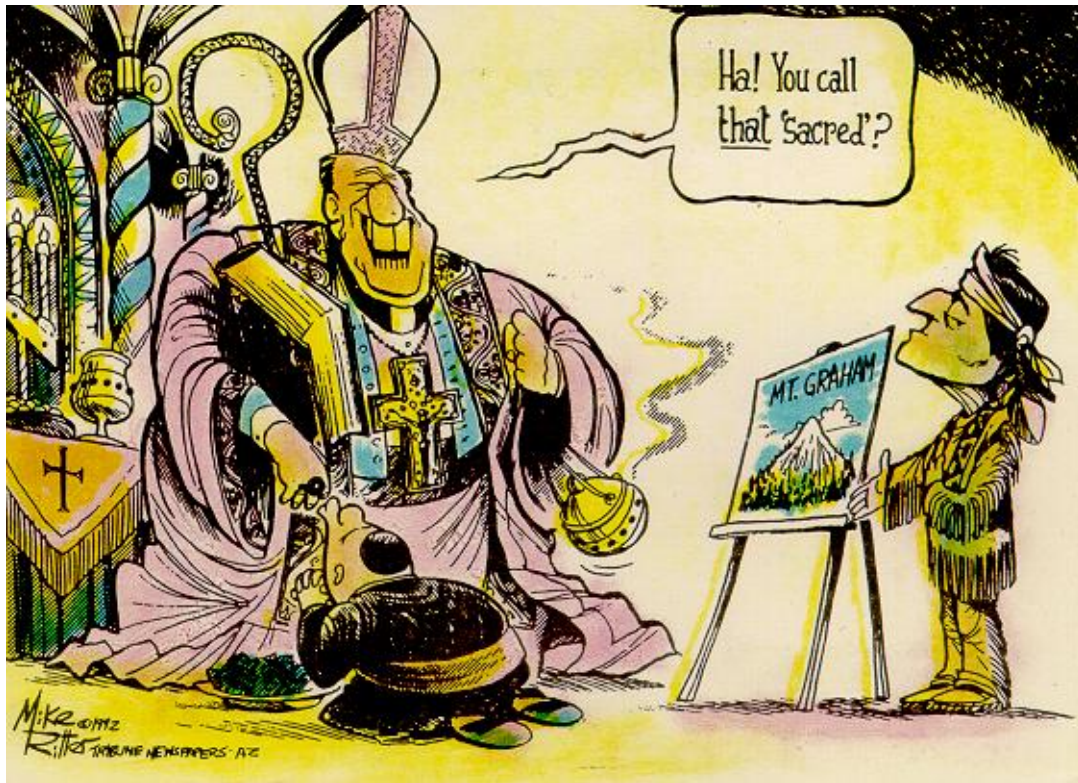
In an interview in the early 1990s for MTV News, Coyne said, “I accept and respect their [Apache people] idea that the mountain is sacred. What I don’t see is the telescopes desecrate that sacredness. [I] have never gotten anyone, Apache or otherwise, to give any reasonable answer to that.” Continued Coyne, who holds a degree in “Sacred Theology,” “They can’t speak of these sacred sites because it’s against their religion—it’s secret. Well, I’m sorry. I cannot, you know, evaluate a secret.”¹¹⁶¹

Coyne failed to see at any point the history and legacy of colonialism to Apaches: the fear that many elders still have of leaving the reservation boundaries to visit Mount Graham, the fact that the telescopes (as opposed to other “structures” on Mount Graham such as summer cabins and a bible camp) are visible reminders from approximately 30 miles away of oppression, that the highest elevations hold important springs, plants, animals, and supernatural beings, or that the mountain *is* greater than humans. More than 100 years of colonialism separated the encroachments of the 1870s, when the mountain was taken away from the Apaches, from the intrusions since the 1980s. Coyne failed to internalize the history and understand Apache ways of being. In 1892, Captain John Bourke wrote, “The taciturnity of the Apache in regard to all that concerns their religious ideas is a very marked feature of their character; probably no tribe with which our people have come in contact has succeeded more thoroughly in preserving from profane inquiry a complete knowledge of matters relating to their beliefs and ceremonials.”¹¹⁶² Coyne’s statements addressed multiple topics: that the Vatican’s use of Mount Graham was acceptable because it enhanced the mountain’s character; the Vatican’s hypocritical criticism of others for manipulating Apache people; and Coyne’s lack of understanding of Apache culture.

¹¹⁶⁰ Coyne, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples.”

¹¹⁶¹ See additional comments by Coyne to reporter Tabitha Soren from MTV News from late 1993 or early 1994. Friends of Mount Graham video by Sky Crosby, dir., *International Day of Actions in Defense of Mount Graham* (Tucson: ECO Productions, 1994).

¹¹⁶² John Gregory Bourke, “Medicine-Men of the Apache,” in Smithsonian, *Ninth Annual Report of the Bureau of Ethnography*, 1887-1888 (Washington, D.C.: Government Printing Office, 1892), 452.



“Ha! You call that ‘sacred’?”¹¹⁶³

Patricia Cummings, a lawyer representing the San Carlos Apaches in their lawsuit, characterized Coyne’s statement as “a classic example of European inability to understand Native American religion.” As religious historian Sam D. Gill stated,

Since the time of Columbus, Native American “religion” has been understood by non-natives primarily from the perspective of Western religious traditions. Religion is defined in terms of churchlike institutions, the presence of scripture, and belief in god or gods. It is rare to find anywhere in the Americas institutions that parallel the ecclesia of Western religions.¹¹⁶⁴

Furthermore, Cummings stated, “The church always builds shrines in places it considers sacred.... But the Indians may not for that very reason.” To support his case, Coyne referenced the field notes of anthropologist Grenville Goodwin, who spent more than a

¹¹⁶³ Matt Ritter, Tempe/Mesa/Chandler, Arizona, *Tribunes*, 15 Mar 1992. See See Mt. Graham Coalition, “Living Land, Sacred Land (The case against the Mt. Graham observatory),” full-color lobbying packet, n.d., 250.

¹¹⁶⁴ Sam D. Gill, “Religious Forms and Themes,” in *America in 1492: The World of the Indian Peoples Before the Arrival of Columbus* (1991; New York: Vintage Books, 1993), 278, but also 281.

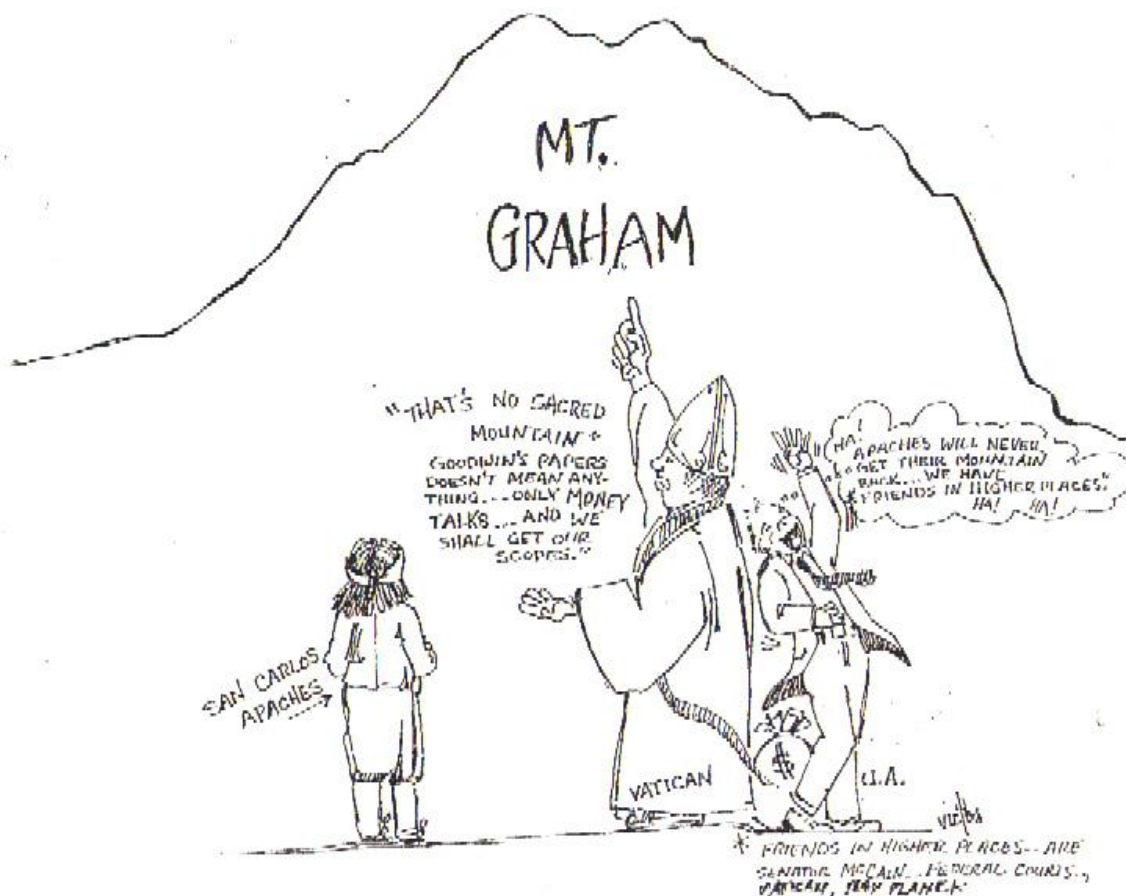
decade living among and working with Western Apaches. According to Coyne, “none of the references single out either the summit or the range itself as unique.”¹¹⁶⁵ According to award-winning columnist Sal Salerno, “Dr. Elizabeth Brandt, an anthropologist who has studied sacred sites in Arizona for more than 20 years and prepared a study of Mt. Graham, disagrees with the Vatican. ‘I’ve never seen so much evidence detailing a sacred site. No competent scholar could have missed these materials,’” she said.¹¹⁶⁶ According to reporter David Hoye from *The Phoenix Gazette*, Coyne acknowledged that “the Vatican might reconsider its position should evidence surface that convinces the church the site is sacred to the Apaches.” Noted Coyne, “That’s always possible.” He continued, “From all I know I doubt it could happen. But if we were building telescopes on ground that could be identified as sacred, that would be very serious.” He noted that “At that point we would not build the telescope.”¹¹⁶⁷ Despite countless efforts to combat the disinformation, and the “discovery” months earlier of proof that the site was sacred, the Vatican went ahead to claim the mountain was not sacred and to build its telescope anyway.¹¹⁶⁸

¹¹⁶⁵ Goodwin’s notes, some of which are restricted, are located in the Arizona State Museum. Copies of some of his papers are located in the Morris Edward Opler Collection at Cornell University. Contrary to Coyne’s assertion, in numerous places in the notes, Goodwin’s informants offer very specific information about Mount Graham. See David Hoye, “Mountain long sacred to tribe, newly found notes show,” *The Phoenix Gazette*, 21 Nov 1991, A1, A13; “UA must halt construction on Mt. Graham,” editorial, *Arizona Daily Wildcat* (University of Arizona), 26 Nov 1991; Apache Survival Coalition, “Chronology of UofA Suppression and Denial of Mt. Graham Sacredness,” flyer, Dec 1991.

¹¹⁶⁶ Salerno, “Vatican Denies Sacred Ancestry of Mt. Graham.” See also, Jennifer Rathaus, “Action Alert: Apache Protest Observatory,” *Action for Cultural Survival: A Bulletin of Peoples and Nations* (Cambridge, MA), Jul/Aug 1992. Sal Salerno to author, personal communication, 20 Sep 2003.

¹¹⁶⁷ Hoye, “Mount Graham not holy site.”

¹¹⁶⁸ Hoye, “Mountain long sacred to tribe, newly found notes show,” A1, A13; “UA must halt construction on Mt. Graham”; Apache Survival Coalition, “Chronology of UofA Suppression and Denial of Mt. Graham Sacredness.”



“That’s No Sacred Mountain—Goodwin’s Papers Doesn’t Mean Anything ... Only Money Talks ... And We Shall Get Our Scopes.”¹¹⁶⁹

That the Apaches must *prove* the sacredness of the mountain has always been a requirement by the Vatican with regards to Mount Graham. As historian David J. Weber mentions, “By placing their own sacred space in the superior position, Spaniards made a powerful statement about the dominance of their religion, just as they had done at Cholula, Tenochtitlán, and other sites sacred to their predecessors in central Mexico.”¹¹⁷⁰ In the case of Mount Graham, the Vatican took its telescope to the top of one the four most sacred spaces known to the Western Apache people. Much as the Spanish had done

¹¹⁶⁹ Victor, n.d. (Mar 1992?). The UA spokesperson says, “Ha! Apaches Will Never Get Their Mountain Back ... We Have Friends in Higher Places.” “Friends in Higher Places ... Are Senator McCain ... Federal Courts ..., Vatican, Max Planck.”

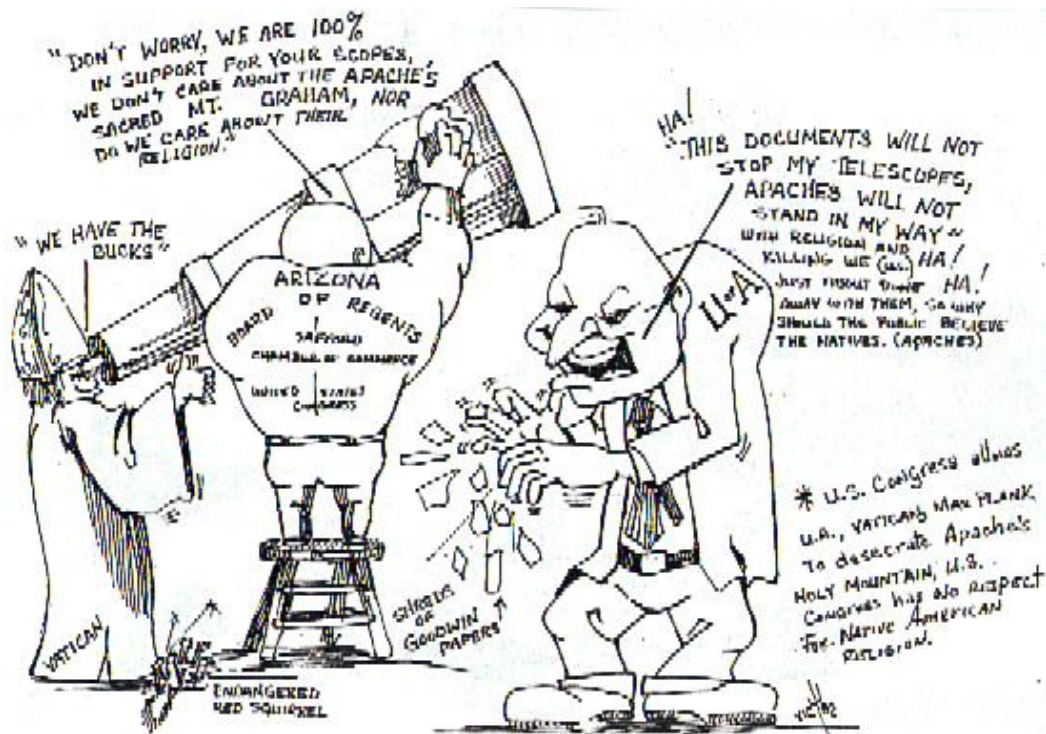
¹¹⁷⁰ David J. Weber, “Indians, Spanish Missionaries, and the Contest for Sacred Space in Southwestern America,” CD ROM, *Espacios Sagrados/Sacred Space*, Exhibit Book and Classroom Resources in Spanish & English (Dallas: Institute for the Study of Earth and Man, 2000), 4.

centuries ago when they placed church altars atop kivas, the Jesuit astronomers placed the Vatican Advanced Technology Telescope (VATT) on top of a sacred space, a relative, a home to plants, animals, and the Gaan, or Mountain Spirits. Nonetheless, the evidence that Mount Graham is sacred is staggering. In 2002, the entire mountain was determined eligible for listing on the National Register of Historic Places as traditional property to the Western Apache people—an effort begun more than a decade before.¹¹⁷¹ This recognition all but assured that, should the Apaches desire, the official designation would be confirmed. This news, as well as the arguments of the day, in no way changed the Vatican's stance.

In fact, no argument or insistence on the part of traditional Apache people changed the minds of Catholic officials. According to the Tekakwitha Conference, an organization that supports the work of beatified Kateri Tekakwitha and American Indian Catholics, on “Nov. 20, 1991, with 70% of Vatican and Max Planck [telescope] foundations poured, UA Indian affairs advisor Gordon Krutz and UA Office of Indian Programs Director Rob Williams, announce they have discovered from the Goodwin papers (housed at UA since late 60s) that Mt. Graham is, indeed, sacred.” Despite these facts, the Vatican still went ahead with its projects and continued to claim that mountain was not sacred in court documents, in comments to the press, in letters to Indigenous and human rights groups, and in filmed documentaries. On March 8, 1992, “The Vatican, a foreign country and Catholic Church, declared Mt. Graham not holy.”¹¹⁷²

¹¹⁷¹ See Elizabeth A. Brandt, for Apache Survival Coalition, “Executive Summary of the Preliminary Investigation of Apache Use and Occupancy and Review of Cultural Resource Surveys of the Proposed Mt. Graham Astrophysical Area, Pinaleno Mountains, Arizona,” 28 May 1991; Elizabeth A. Brandt, “Response to the Statements of the Vatican Observatory On the Mount Graham International Observatory and American Indian Peoples; and Statement on the Mount Graham International Observatory (MGIO), The Ecology of the Pinaleno Mountains, and Related Political Issues,” 5 May 1992; and Environmental Impact Statements regarding Mount Graham from the 1980s.

¹¹⁷² Fred A. Buckles, Jr., “Chronology of U. Of Arizona Suppression And Denial of Mt. Graham Sacredness,” *Tekakwitha Conference National Center Newsletter* (Great Falls, MT), Jul/Aug 1992.



“Don’t worry, we are 100% in support for your scopes, we don’t care about the Apache’s sacred Mt. Graham, nor do we care about their religion.”¹¹⁷³

According to columnist Salerno, who covered the struggle for Mount Graham extensively for several newspapers during the early 1990s,

The UA’s MGIO [Mount Graham International Observatory] project’s history has been characterized by astronomers, University officials and congresspersons ignoring claims of harm by Native Americans. The UA’s total disregard for Native American spirituality is evidenced in their continual denial of the testimony of Apache elders and three unanimous resolutions of the [San Carlos] Apache Tribal Council concerning the mountain’s sacredness, testimony backed by extensive documentation. Moreover the UA [and Vatican and Max Planck] in its eagerness to built MGIO, has already destroyed one religious site. According

¹¹⁷³ Victor, n.d. (possibly Mar 1992). The Vatican astronomer says, “We Have the Bucks,” while the UA official shreds the Grenville Goodwin anthropological papers and states, “Ha! ‘This documents will not stop my telescopes, Apaches will not stand in my way,’ with religion and Ha! Killing us (U.S.) Ha! Just about done Ha! Away with them, so why should the public believe the natives. (Apaches).” The man cleaning the telescope represents the Arizona Board of Regents, the Safford Chamber of Commerce, and United States Congress, while the bottom right-hand corner states, “U.S. Congress allows U.A., Vatican, Max Planck to desecrate Apache’s Holy Mountain, U.S. Congress has no respect for Native American religion.” See Mt. Graham Coalition, “Living Land, Sacred Land,” 262.

to UA officials the bulldozing of a Native American religious site on top of High Peak (highest peak on Mt. Graham) while erecting a temporary radio tower was done “accidentally.”¹¹⁷⁴

Countless other authors, activists, journalists, columnists, and Native people joined the response to the Vatican’s efforts to marginalize Apache voices and display a lack of respect for the sacred places of others.¹¹⁷⁵ As Tohono O’odham spiritual leader Joseph Enos said, according to reporter Ben Winton, “many non-Indians cannot understand how a desert or the top of a mountain can be as holy as the interior of a church, synagogue, mosque, or temple.” As a result, said Enos, “All over the American West, we see federal agencies bulldozing irreplaceable religious sites and acting in unchecked and insensitive manners without regard to traditional religious people.”¹¹⁷⁶

In his declaration, Coyne proclaimed, “through the manner by which we have dealt and continue to deal with the issues raised by American Indians, we believe that we are making a positive contribution to seeing that their rights are fully respected according to the principles enunciated by His Holiness.”¹¹⁷⁷ In fact, the bottom line, according to San Carlos Apache Franklin Stanley, in his affidavit, *was* respect:

Our traditions were here long before the white man came, and they still exist today.... We have listened to you tell us Mt. Graham is not sacred. But those who say that do not know, and they have not talked to the spiritual leaders, like myself.... Any religious person knows that it is a sin to be disrespectful of another’s religion.... Respect, and the rights granted to us by certain laws are what we ask for....

¹¹⁷⁴ Salerno, “Vatican Denies Sacred Ancestry of Mt. Graham.” Project Censored selected 15 underrepresented stories from 1992, of which sacred sites struggles throughout the United States were highlighted. Mount Graham was the most represented. Project Censored highlighted articles by Jennifer Rathaus, Sal Salerno, and Tim McCarthy. “The Project Censored panel,” *San Francisco Bay Guardian*, vol. 27, no. 14, 6 Jan 1993. See Jennifer Rathaus, “Apaches Protest Observatory,” *Action for Cultural Survival*, Jul/Aug 1992; Sal Salerno, “Vatican Denies Sacred Ancestry of Mt. Graham,” *Huracan*, Summer 1992; Sal Salerno, “Native American Sacred Lands in Crisis,” *Northern Sun News*, Fall 1992; Tim McCarthy, “Astronomy versus red squirrel on Arizona sierra,” *National Catholic Reporter* (Kansas City, MO), 18 Jun 1989, 1, 6; Tim McCarthy, “Apache tribe lives new vision in fight to save mountain,” *National Catholic Reporter* (Kansas City, MO), 2 Aug 1991.

¹¹⁷⁵ See esp., Brandt, “Response to the Statements of the Vatican Observatory On the Mount Graham International Observatory and American Indian Peoples.”

¹¹⁷⁶ Ben Winton, “The right to rites: Rulings tear at fabric of tribe’s religious legacy,” *The Phoenix Gazette*, 10 Aug 1992, A10.

¹¹⁷⁷ Coyne, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples.”

After describing the ways in which Jesuit astronomers and Vatican officials had marginalized and failed to listen to the concerns of Western Apache people, Stanley attempted to explain what Mount Graham does and what it provides to his community:

The mountain is part of spiritual knowledge that is revealed to us. The mountain gives us life-giving plants and healing.... Our prayers go through the mountain, to and through the top of the mountain.... There are also very sacred plants on top of the mountain.... The mountain is like a gateway of river and putting a dam on the river.... The construction would be very detrimental because our prayers would not travel their road to God....

Nowhere else in this world stands another mountain like the mountain that you are trying to disturb. On this mountain is a great life giving force. You have no knowledge of the place you are about to destroy.... Mt. Graham is one of the most sacred mountains. The mountain is holy. It was holy before any people came, and in the mountain lives a greater spirit.... If you take Mt. Graham from us, you will take our culture.... You have killed many of us, you killed my grandfather. You have tried to change us.... Why do you come and try to take my church away and treat the mountain as if it was about money instead of respect?¹¹⁷⁸

Stanley then pointed out:

We pray to the mountain. The gods speak to us from the mountain. We worship the mountain.... I am not saying that the waters, the plants or the mountain IS our god, like some would say, as in pagan idol worship. Our idea of what is a god is not that. Much of it is closer to what Christians would recognize, since Catholics, for instance, have holy water, saints who have healing powers, believe in visions and have sacred sites where respect is essential.¹¹⁷⁹

Stanley was one voice among a number of indigenous voices that attempted to explain, reason with, and interrogate the comments made by Vatican representatives regarding Mount Graham.

In an opinion column, Stan Bindell, managing editor of *The Navajo-Hopi Observer*, worried about the effects of Coyne's statements and their support from the Vatican: "For the Vatican [Observatory Research Group] to tell the San Carlos Apaches

¹¹⁷⁸ Franklin Stanley, affidavit, *Apache Survival Coalition v. United States of America*, CIV. NO. 91-113550-PHX-WPC, 31 Mar 1992. See also, "Mt. Graham: Vatican Declares Traditional Apache Religion Invalid!": 6; See also, McCarthy, "Vatican project bulldozes Apache religion," A14.

¹¹⁷⁹ McCarthy, "Vatican project bulldozes Apache religion," A14. Emphasis in original.

that Mount Graham is not sacred is much like the Muslims telling the Jews that the Wailing Wall is not sacred. Or Jews telling Christians that Bethlehem is not a sacred site. Or for Anglos to tell Navajos that Big Mountain is not a sacred site. The point should be obvious.” Bindell wrote about the “paternalistic” tone of Coyne’s statements and noted, “The Vatican group is the ideologue because they paint a one-sided position that shows a lack of sensitivity to other beliefs. The Apaches are not the ones telling the Vatican how to live or what to do with their sacred lands.” Regarding Coyne’s comments that the Vatican Observatory officials had attempted to meet with Apaches who oppose the telescopes, but have had no success, Ernest Victor, a San Carlos Apache councilmember stated, “That’s an outright lie.... I have not seen any communications; a religious man should not lie.” According to Bindell, Victor added “that the tribe would have opposed logging, mining, and other uses of the mountain that have gone on, but that they were not notified until the projects were under way.” Victor turned the tables on the Vatican: “I respect their work with astronomy, but I wish they would stick a dome through the Vatican so they could see more clearly.... I wonder what they would do if we did this to them.”¹¹⁸⁰

¹¹⁸⁰ Stan Bindell, “Vatican paper may give all reason to worry about sacred sites,” *The Navajo-Hopi Observer*, 25 Mar 1992: 4.



“Just a Little Farther Up The Mountain My Son. ... By The Way Have I Told You How Much I Respect Your People [Ernest] Victor.”¹¹⁸¹

In the mid-1990s, during the filming of *Le Garçon S’Appelait Apache* (This Boy’s Name Was Apache), a Swiss documentary about the struggle for Mount Graham, Coyne repeated many of his familiar lines in defense of his actions and those of the Vatican. Coyne stated, “Specifically addressing the Apache, the San Carlos Apaches: any Apache who considers that Mount Graham is sacred—to me, it’s sacred to that person and I have a profound respect for their declaration of its sacred with all the results that come from that.” In the next breath, Coyne reverted to a dated belief that if there are no “markers”—a structure, symbols, etc—then the sight is not holy, nor is it a desecration to have

¹¹⁸¹ *The Navajo-Hopi Observer*, 10 Jul 1991; *The Circle* (Minneapolis), vol. 12, no. 10, Oct 1991. See Mt. Graham Coalition, “Living Land, Sacred Land,” 262. The Pope that San Carlos Apache tribal council member Ernest Victor carries has in his hand “Vatican Observatory Funding \$,” while the sign on the tree stump states, “Mt. Graham Or Bust.”

telescopes on the mountain.¹¹⁸² Coyne's comments illustrated a central tenant of the Doctrine of Discovery: that Christian nations have a right to claim "unoccupied lands" (*terra nullius*), or lands belonging to "pagans" or "heathens," for their own use.¹¹⁸³ The problem with this logic is that, one, it is wrong because there are many sacred "markers" on the mountain; two, the Apache should not feel obliged to prove to outsiders that the place is sacred; and three, it reinforces old ideas about the sanctity of place. According to Coyne, "I cannot see, however, that our observatory—located on the small bit of property it is—not, the property is not identified clearly with any past history of sacred rights or anything being performed there. With all of that in mind I can't see at all how we profanate or desecrate the mountain. I fail to see that completely."¹¹⁸⁴ His on-line history of the mountain, in its ever-changing forms, from the Vatican website, makes similar claims.¹¹⁸⁵

Coyne's public statements followed a long trajectory of cultural insensitivity, misunderstanding, ignorance, and arrogance. The statements and actions of the Vatican Observatory and by extension the Vatican itself were troubling. They were not unlike the comments made in 1846 by "one Franciscan after studying the religious beliefs of two distinct Indian peoples in California." He said, "I do not understand why it is ... that in neither ... is there any mention made of the heavens, and that all their ideas of things appear to be confined to the earth."¹¹⁸⁶ The 500-year colonial history, from 1492 to 1992, provided continuity in the Apache struggle for Mount Graham. Declared Ernest Victor, a spokesman for the San Carlos Apache Tribal Council, "This is a war right now between the Vatican and the Apaches." Indeed, Victor saw "History ... repeating itself.... If you go back to the time of Christopher Columbus, religion was used as a front for white

¹¹⁸² Stéphane Goël, dir., *Le Garçon S'Appelait Apache* (This Boy's Name was Apache) (Climage and Ardèche Images Production, 1995). See similar comments in Coyne, "Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples," 1. Father Meyer from International Falls, Minnesota, wrote a letter to Cardinal Lara at the Vatican not only about his concerns regarding the Vatican's involvement in the telescope project but also especially about Coyne's comments. See Meyer to Lara, 1-4.

¹¹⁸³ Welch, "A *dzil nchaa si'an* Chronology," 3.

¹¹⁸⁴ Goël, dir., *Le Garçon S'Appelait Apache* (This Boy's Name was Apache).

¹¹⁸⁵ Coyne, "Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples," <http://vaticanobservatory.org/indian.html>.

¹¹⁸⁶ Weber, "Indians, Spanish Missionaries, and the Contest for Sacred Space in Southwestern America," 1.

people to get what they wanted.” By the end of March 1992, a number of Catholics were beginning to feel “uncomfortable,” according to Fred Allison, a spokesman for the Diocese of Tucson. The comments and actions of Jesuit astronomers, Vatican officials, and the representatives of the diocese in Tucson, among others, had far reaching effects—from places like the Catholic Diocese of Superior, Wisconsin, for example.¹¹⁸⁷

Nearly one week after Coyne’s March 5, 1992, affidavit, Charles Polzer, a Jesuit priest, “former housemate of the Vatican Observatory director,” curator of ethnohistory at UA’s Arizona State Museum, and director of the Documentary Relations of the Southwest (DRSW), came into the spotlight because of a letter he sent to Arizona Governor Fife Symington attacking the credibility of Elizabeth Brandt, an Arizona State University anthropologist whose work, observations, and research supported the Apaches and environmentalists working to get the UA and its research partners off Mount Graham.¹¹⁸⁸ In his capacity as a curator, he should have had a better understanding of the materials in the Arizona State Museum, but he went ahead with his attack against Brandt and Apaches anyway—despite the fact that “Unlike Polzer and Coyne, she is free from the UofA’s real or perceived political and economic influence over its associates,” as one journalist stated.¹¹⁸⁹ The example of Polzer versus Brandt, although it seemed small and turned somewhat petty, showed the lengths that Vatican-endorsed officials were willing to go to marginalize the Apaches and environmentalists and their allies. This example also displayed the level of opposition that the Vatican sponsored in an attempt to marginalize historical Apache ties to Mount Graham, as well as the counter resistance to the Vatican’s actions.

Among Polzer’s claims were that the Apaches were “not a mountain-dwelling” people and gave Mount Graham “only the most casual and ephemeral use”—claims that

¹¹⁸⁷ Laurie Hansen, “Vatican Telescope raises eyebrows, queries,” *Superior Catholic Herald* (Superior, WI), 2 Apr 1992, 2; Laurie Hansen, “Controversy continues over Vatican scope in Arizona,” *The Florida Catholic* (Orlando), 3 Apr 1992.

¹¹⁸⁸ Charles W. Polzer, S.J., to Governor Fife Symington, 11 Mar 1992; John J. Campo and Alexiss A. Holden, “Dzil Nchaa Si An: The San Carlos Apache vs. The Vatican,” a website prepared for a Native American Studies course at University of California, Davis, titled “Native American Community Development,” 3 Jun 1996, http://cougar.ucdavis.edu/nas/varese/nas122/spring96/graham/nas_mt.g.html, accessed 13 Nov 2003.

¹¹⁸⁹ Genrich, “Mt. Graham: Holy war for the Arizona mountaintop.”

fly in the face of historical and anthropological evidence since at least the 1600s.¹¹⁹⁰ He also took a shot at Goodwin, the anthropologist whose work in the 1920s and 1930s has formed the basis for a majority of what scholars know about Mount Graham and Western Apache life and culture, and Goodwin's papers: "they are ... the notes of a graduate student, not an accomplished anthropologist."¹¹⁹¹ At the time of his death in 1939 at age 32, Goodwin had already published several papers and one book on Western Apaches. After his death, his voluminous study, *The Social Organization of the Western Apache*, was published and helped to form the basis for work by scholars such as Morris Edward Opler, Kaut, Basso, Brandt, and Welch.¹¹⁹² Goodwin's undeniable documentation and information proving Mount Graham is sacred to the Western Apache had been stored at UA's Arizona State Museum since the 1960s.¹¹⁹³

Polzer then returned to his attack of Brandt, other opponents to the telescope, and the Apaches who share the same feelings. In his letter, Polzer stated,

The generalizations and false attributions made by Dr. Brandt's letter are unworthy of a disinterested scholar, but unfortunately, they are typical of the hysteria that is being foisted on the public by members of this odd coalition of dissident Apaches and reactionary non-Indians. Her remarks about the government's failure to approach the Apaches are contrary to fact. The reality is that no Apache bothered to take up this cause until non-Indians coaxed certain long-term, political dissidents to block construction of the telescope. Interminable legal maneuvers and lack of firm adherence to court decisions has encouraged this throwing of dust in the eyes of justice.¹¹⁹⁴

It should be remembered that Brandt never sent a letter to Symington. As she said in her letter to Polzer after he commented on Brandt to Symington, "I was astonished by your

¹¹⁹⁰ For a critique of Polzer and his arguments and assertions, see the excellent essay by John R. Welch, "White Eyes' Lies and the Battle for *dzil nachaa si'an*," *American Indian Quarterly*, Special Issue: "To Hear the Eagles Cry: Contemporary Themes in Native American Spirituality," Lee Irwin, ed., vol. 21, no. 1 (Winter 1997), 78-82. See also the title of books such as Richard J. Perry, *Western Apache Heritage: People of the Mountain Corridor* (Austin: University of Texas Press, 1991).

¹¹⁹¹ See Emilie Terrazas, "Vatican telescope showing a most unholy disrespect," letter to the editor, *Indian Country Today*, 10 Mar 1993, A5.

¹¹⁹² Neil Goodwin, *Like a Brother: Grenville Goodwin's Apache Years, 1928-1939* (Tucson: University of Arizona, 2004); Grenville Goodwin, *The Social Organization of the Western Apache* (Chicago: University of Chicago Press, 1942).

¹¹⁹³ Roger Featherstone to M. Schwartz, "Mt. Graham—Sacred Mountain, Sacred Ecosystem," email, 30 Jun 1992. See Hoye, "Mountain long sacred to tribe, newly found notes show," A1, A13.

¹¹⁹⁴ Polzer to Symington.

vicious personal attack on me without any direct knowledge of my work. Had you communicated with me, I could have told you that the letter you saw was a draft that was never sent as the Governor [Symington] appeared to have formed an unshakeable opinion favoring the project by the time I finished the letter.”¹¹⁹⁵ Polzer inserted himself into the controversy without fact checking. What is more is that Polzer apparently did not want to be a part of the controversy. Polzer stated, “It is not my purpose to become embroiled in this tragic dispute which aims at division, not resolution.” One month later, Polzer became “embroiled” when he became another UA-supported expert on Apache history and culture, and joined the UA lawsuit against the Apaches. His affidavit and later comments about a “Jewish conspiracy” put him and his words at the front of a growing problem for the Roman Catholic Church.

According to Brandt, “The documents do say there was an Apache presence on the mountain. But that’s not what’s most important here. What’s important is that living people are saying, ‘Hey, this mountain is sacred to us. Don’t build telescopes on it.’”¹¹⁹⁶ Furthermore, according to Brandt,

The San Carlos Apache Tribal Council has passed two resolutions opposing the astrophysical development. Tribal Council members, spiritual leaders, and ordinary people have spoken out against the project repeatedly. They have met with the President of the University [of Arizona], members of our congressional delegation, and others, and have tried to get across their concerns. The resolutions state some of why the mountain is sacred, but do not exhaust that notion. If there were no historical evidence, it would not change the issue. The Apache are trying to be heard, trying to say that their religion and culture should not be sacrificed for this project. They are relatively powerless and are up against the combined might of “big science,” the U.S. Federal Government, the University, the Vatican, and the Max Planck Institute.

Brandt concluded her letter to Polzer by stating what she felt was her role in the efforts of the Apaches to be heard. She was using her skills and status as a scholar to combat the attacks on Apaches and help when asked. Stated Brandt, “This case is the powerful ignoring the powerless just as has happened in contact situations for the last 500

¹¹⁹⁵ Elizabeth A. Brandt to Charles Polzer, 9 Apr 1992: 1. According to Brandt, the letter reached the public eye accidentally. Elizabeth Brandt to author, email, 25 May 2009.

¹¹⁹⁶ David Hoye, “2 scholars at odds in Graham tiff: Credibility of researcher questioned; debate looms,” *The Phoenix Gazette*, 23 Mar 1992.

years. It is the Western European culture of science arrogantly running over an indigenous people trying to continue religion, healing, and cultural identity.” Her last comments were aimed directly at Polzer:

You are an ethnohistorian of international reputation. Documents in your care speak to an Apache presence in and near the Pinaleños for centuries as well as south of there. The Goodwin Papers dating from over fifty years ago speak of the religious and cultural significance of the mountain well before the telescope project was a glimmer in any astronomer’s eye. Listen to Apache people. Evaluate the evidence. Is the side you are on the one you really want to be on in the 1990’s?¹¹⁹⁷

Brandt sent a letter to Governor Symington on the same day that she responded to Polzer. In her defense, she stated that Polzer’s efforts were “part of a pattern of distortion and untruth which the University of Arizona has consistently pursued in this project.” She pointed out to Symington:

I appealed to you to reconsider the issue [of Mount Graham] because my experience as a professional anthropologist showed that Apache claims to sacredness of the mountain are veridical. I don’t find that misuse of academic status. You should note that Fr. Polzer has taken the opposite political stance and has in this instance put his scholarly credibility on the line by stating positions which are incorrect.

To Brandt, “This is an issue of religious freedom and cultural survival. It is not environmentalists manipulating Apaches. It is fundamentally a moral issue.” She warned,

We are at one of those kinds of crossroads where either path could be taken. . . . Do we want to continue a path that denies the rights of American Indians, destroys their sacred sites, and impairs their cultural integrity or do we want to say that 500 years of that kind of activity are enough and make a change? Again, I hope you will reconsider your stance on the project and communicate with the Apache.¹¹⁹⁸

Brandt’s comments about the archival documents in Polzer’s care, the arguments about her research findings within Arizona State Museum, and her admonitions about the position he was taking did not stop Polzer from plowing forward with his campaign to discredit Apaches and their allies. One month after sending his letter about Brandt to the governor, he continued his attack on Apaches in court.

¹¹⁹⁷ Brandt to Polzer: 2. See also, Genrich, “Mt. Graham: Holy war for the Arizona mountaintop.”

¹¹⁹⁸ Elizabeth A. Brandt to Governor Fife Symington, 9 Apr 1992.

Polzer entered the legal battle in April 1992, when he joined Coyne as a UA “expert” on Apaches.¹¹⁹⁹ But his actions were not as an individual, independent scholar. According to the San Carlos Apache newspaper, *Moccasin*, “the entry of two Jesuit priests into the lawsuit against the Apache on April 6, 1992 was supported by the Vatican Secretary of State.” The affidavits submitted by Polzer supported Coyne’s declaration that Mount Graham “was not sacred to the Apache people.”¹²⁰⁰ However, Vatican astronomers stated that they were willing to meet with “authentic Apaches.”¹²⁰¹ As pointed out by many activists, these priests “joined in the state funded University of Arizona legal efforts against the religious beliefs of the traditional Apache,” a continuation of actions and policies begun decades ago.¹²⁰² All of these efforts by Jesuit priests and their allies were meant to deny any Apache claims to Mount Graham.¹²⁰³

Following the exchange between Polzer and Brandt, and the entrance of Polzer into the lawsuit, a number of scholars and activists appeared to offer counter arguments. The controversy became so heated and acrimonious that Polzer’s colleague, Thomas Sheridan, an associate curator of ethnohistory at Arizona State Museum, a noted anthropologist, and author of an important history of Arizona, felt compelled to wade into the fray.¹²⁰⁴ That Sheridan was not affiliated with any Apache or environmental groups opposed to the telescope shows the ways in which this struggle touched people who would otherwise have maintained a neutral position.¹²⁰⁵ He chided Polzer for mistakes of logic, scholarship, and ethics. Stated Sheridan,

It was with anger and deep regret . . . that I finally read your March 11, 1992 letter to Governor Symington, and your affidavit of April 6, 1992—an affidavit I was unaware of and had not read until last week. Your erroneous comments about Apache society and culture, your questionable use of

¹¹⁹⁹ Charles W. Polzer, S.J., affidavit, 6 Apr 1992; Apache Survival Coalition, “Two Jesuit Priests in Arizona Have Joined a Lawsuit,” 1-3

¹²⁰⁰ “Apache delegation denied audience with pope,” *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 89, 26 May 1992.

¹²⁰¹ Coyne, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples.”

¹²⁰² Maricopa Audubon Society, “Mt. Graham scopes to ‘spread the Gospel to extra-terrestrials,” *News Advisory*, 17 Dec 1992.

¹²⁰³ Mark Dooley, “Tribe, Vatican clash over Mt. Graham,” *High Country News* (Paonia, CO), 2 Nov 1992.

¹²⁰⁴ See Thomas E. Sheridan, *Arizona: A History* (Tucson: University of Arizona Press, 1995).

¹²⁰⁵ Tom Sheridan to Peter Warshall & Associates, letter, 26 Jun 1992.

ethnohistorical evidence, your misunderstanding of Apache spirituality, and your dismissal of Grenville Goodwin as “a graduate student, not an accomplished anthropologist,” all contribute to the process of distortion and confrontation so antithetical to the goals of scholarship. You also have dragged both the DRSW [Documentary Relations of the Southwest] and the Arizona State Museum into the controversy, threatening our credibility at a time when we would be making every effort to remain objective.

Sheridan stated that he felt “compelled to reply to the statements in [Polzer’s] affidavit.”¹²⁰⁶ In his lengthy letter, Sheridan went point by point through Polzer’s arguments.

In response to Polzer’s claim in his affidavit that the Apaches were “very late immigrants to the Gila Valley,” Sheridan pointed out that Spaniards founded Mission San Xavier in 1700, “Yet no reasonable person would deny the sacredness of San Xavier to Catholics in southern Arizona or across the world. Both groups [Catholics and Apaches] have lived in the area long enough to establish sacred ties to the landscape.” To Polzer’s assertion that Apaches “were not a mountain-dwelling tribe,” Sheridan noted that various records and sources “reveal . . . that Apaches hunted in the mountains, worshipped and acquired supernatural power in the mountains, took refuge in the mountains, gathered acorns, agaves, and wild plants on mountain slopes, and farmed during the summer in mountain valleys along mountain streams.” It is worth noting that the official seals of both the San Carlos Apache Tribe and the White Mountain Apache Tribe have at their center a huge mountain range—probably Mount Baldy and Mount Graham.¹²⁰⁷ Sheridan noted that the various Apache tribes were named for mountain ranges: “Just considering Spanish terminology alone, one encounters the Pinaleños, Chiricahuas, Sierra Blancas—the list goes on and on.” He mentioned the work of Edward “Ned” Spicer, “the leading ethnohistorian of the Southwest,” to prove his comments about the inadequacy of using European documentary evidence to make arguments about native peoples, in this case of Apache life and land uses.¹²⁰⁸

¹²⁰⁶ Thomas E. Sheridan to Charles W. Polzer, S.J., 19 May 1992.

¹²⁰⁷ Welch, “White Eyes’ Lies and the Battle for *dzil nachaa si’an*,” 80.

¹²⁰⁸ Sheridan to Polzer.

Sheridan became most incensed, it seems, with Polzer's comment in his affidavit that "Rarely did the Apaches use these mountain heights, and the sacredness is about as specific as references to the sky," a comment that Sheridan stated "is offensive and misleading." Questioned Sheridan, "What gives you or I or any other non-Apache the right to comment about sacredness in Apache culture? You may be an ordained Roman Catholic priest, and a trained Roman Catholic theologian, but that training does not qualify you as an expert on non-Western, Native American spirituality." Sheridan pointed out that Polzer's training gave him no right to comment on or criticize "Apache sacred geography." Finally, about Polzer's attack on the scholarship of Goodwin, Sheridan stated that serious scholars of the Southwest would take umbrage with Polzer's comments and instead "recognize [Goodwin's] sensitivity, his comprehensiveness, his objectivity, and his deep and passionate understanding of a people who had been misunderstood and vilified for centuries."¹²⁰⁹ Indeed, Goodwin's notes are numerous and extremely important to any researcher or modern day Apache.

The Polzer versus Brandt debate was not just about two or more scholars arguing. It was about who defined and controlled the history of Western Apache people and their connections to Mount Graham, and how that history would be used. As a result of much disinformation from UA and its allies, especially Vatican scholars such as Coyne and Polzer, the fight for the history of Apaches and their sacred mountain was by the summer of 1992 at the forefront of the struggle for Mount Graham. According to Cummings, an attorney for the Apaches, "This letter is a good example of how Polzer has misused the historical record."¹²¹⁰ In a separate letter to biologist Peter Warshall, Sheridan stated, "I find it hard to believe that any ethnohistorian or Apache scholars would support [Polzer's] positions." Polzer never responded, "either verbally or in writing," to Sheridan's letter.¹²¹¹

Very quickly, opposition to the project also came from the Catholic journal *Commonweal*, groups like Catholics for Ethics and Justice, religious coalitions, American

¹²⁰⁹ Sheridan to Polzer.

¹²¹⁰ David Hoye, "2 officials clash over telescope: Letter by aide alleges museum curator wrong," *The Phoenix Gazette*, 26 Aug 1992: B2.

¹²¹¹ Sheridan to Warshall.

Indians, and concerned citizens in Arizona and elsewhere. Many activists and Apaches shared the point of view put forth by Giancarlo Barbadoro, an activist in Europe who supported the human rights of indigenous peoples: “Obviously it can only be the spirituality of who uses the site that is decisive in this evaluation and no-one can use their own belief systems to establish the quality of sacredness for others.”¹²¹² Ben Nighthorse Campbell, chief of the Northern Cheyenne in Colorado at the time and the first American Indian Senator, stated, “If the Indians say it’s a sacred site, it’s not for the Vatican to say that it isn’t.” Furthermore, Campbell said, “Our sites don’t become sacred because someone built a coliseum or a cathedral there, but because someone there were important rituals performed there, or because it’s where someone has died.”¹²¹³ Columnist K. J. Scotta agreed in a column titled, “What is sacred to Apache must be defined by Apache.”¹²¹⁴

In response to the statements of Coyne, as well as Polzer’s comments that there is no documentary evidence, in an opinion column, Kristie Butler asked, “Does any thinking person really believe that a native practitioner is going to sit down and dictate to an enemy the specifics of his people’s sacred geography?” Responding to comments that activities such as logging, recreation, and mining had taken place for decades without opposition, Butler asked, “How can any thinking person expect an oppressed people to cry out when the dominant people begin cutting timber on a mountain, no matter how sacred they believe it is?” Butler saved for last her comments in response to Coyne and Polzer who maintained that the Apaches were latecomers to the struggle for Mount Graham:

This overlooks the fact that the Forest Service was informed in a letter dated Jan. 19, 1987, that members of the San Carlos Apache tribe consider Mount Graham sacred and it was still being used for religious rituals and plant gathering.

The question then becomes, who has the responsibility for investigating these claims? Apparently neither the Forest Service, the University of Arizona nor

¹²¹² Barbadoro and Nattero, *Natural Peoples and Ecospirituality*, 195.

¹²¹³ Molly Gordy, “Sacred Site Disputes: Indian Tribes fight to retain holy grounds,” *New York Newsday*, 19 Nov 1992. For additional comments by Campbell, see the short film by Robby Romero, dir., “Makočę Wakan (Sacred Earth),” VH1 World Alert Rockumentary Film Special Edition (VH1/Video Hits One, 1993).

¹²¹⁴ K. J. Scotta, “What is sacred to Apache must be defined by Apache,” *Tucson Citizen*, 3 Apr 1992.

the Arizona State Museum took it upon themselves to look any further, expecting the medicine men themselves would come forward.

This demonstrates an amazing lack of understanding and sensitivity toward a people whose public religious ceremony, the Crown Dance, was long derided as “The Devil Dance,” and whose rituals were once punished under law.

Concluded Butler, “It also shows an ignorance of the fact that in some religious systems, some knowledge is esoteric and revealing it endangers the health or even the life of the practitioner.”¹²¹⁵ One reader of *The Phoenix Gazette* was quick to point out the bottom line: “A full year after the Apache filed suit, the UofA and the Vatican have been unable to produce an anthropologist to side in the lawsuit with their two Vatican Jesuit Apache religious ‘experts.’”¹²¹⁶ It was not the first time, nor would it be the last, that Polzer (and Coyne) would put his foot into his mouth.

According to scholar John Bellamy Foster, “Critics of environmentalism (often themselves claiming to be environmentalists) have frequently used these rational reservations on the part of scientists to brand the environmental movement as ‘apocalyptic.’”¹²¹⁷ One such example came from Coyne who tried not only to marginalize the efforts and positions of both Apaches and environmentalists but also to call into question the sacred connections between Apaches and Mount Graham.¹²¹⁸ In a paper titled, “Personal Reflections upon the Nature of Sacred in the context of the Mount Graham International Observatory,” Coyne stated, “I have said that to the best of my knowledge there is no documentary or archeological evidence or any other reasonable argument that establishes either the sacred character of the specific observatory site or such a sacred character to Mt. Graham as a whole as to preclude other uses of the mountain (in this case an astronomical observatory)” —a comment echoed later by

¹²¹⁵ Kristie L. Butler, “Rejection of Apache religious claim shows ignorance, insensitivity,” *The Phoenix Gazette*, 21 Nov 1992.

¹²¹⁶ Mark Lammers, “Symbol of oppression,” Letter to the Editor, *The Phoenix Gazette*, 25 Sep 1992: A13; Mark Lammers, letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 22 Sep 1992; Lammers, “Mount Graham project has brought dishonor to Vatican,” letter to editor, *The Navajo-Hopi Observer*, 14 Oct 1992.

¹²¹⁷ John Bellamy Foster, “The Scale of Our Ecological Crisis,” *Monthly Review* 49, no. 11 (April 1998), www.monthlyreview.org/498jbf.htm, accessed 21 May 2002.

¹²¹⁸ See Coyne to Obermann.

supporters of telescope development.¹²¹⁹ Coyne then stated that “the San Carlos Apache Tribal Council” has not “offer[ed] reasonable arguments” to prove the mountain’s sacredness. Coyne became the arbiter of Indian policy, therefore threatening the sovereignty of the San Carlos Apache Tribe, when he stated, “To my satisfaction they have not.”¹²²⁰

He finished his paper, which he wrote at Castel Gandolfo in Italy on May 25, 1992, by stating, that the beliefs of Apaches and environmentalists working for Mount Graham are “a kind of environmentalism and a religiosity to which I cannot subscribe and which must be suppressed with all the force that we can muster.”¹²²¹ He forwarded his imperialistic statement to the Working Group for Indigenous Peoples in Amsterdam. When Coyne’s letter was made public, the Apache Survival Coalition (ASC) and Sierra Club, among many other groups, responded. In a “Columbus Day News Advisory,” the ASC pointed out:

in an unprecedented act of solidarity, the San Carlos Apache Tribal Council has passed three unanimous resolutions opposing the telescopes. The validity of the traditional beliefs has also been supported by the two leading anthropologists of the Western Apache (Dr. Keith Basso and Dr. Elizabeth Brandt), the University of Arizona’s own cultural advisor (Mr. Gordon Krutz), as well as over sixty Native American and human rights groups around the world.

Most importantly, “All US partners (eight) have withdrawn from Mt. Graham except for the University of Arizona.” According to the ASC, “Now the Vatican supports its continued Mt. Graham involvement with a new call for Native American suppression.”¹²²²

San Carlos Apache and ASC board chair Ola Cassadore Davis stated, “The Pope says he respects our religion and culture. Why does the Vatican continue to do this? Why do Catholics and the Pope allow these Jesuits to do terrible things to us Apache?” In an

¹²¹⁹ George V. Coyne, “Personal Reflections upon the Nature of Sacred in the context of Mount Graham International Observatory,” Castel Gandolfo, Italy, 25 May 1992. See Fergus M. Bordewich, *Killing the White Man’s Indian: Reinventing Native Americans at the End of the Twentieth Century* (1996; New York: Anchor Books, 1997), 11-12, 204-239, esp. 206.

¹²²⁰ Coyne, “Personal Reflections.”

¹²²¹ Coyne, “Personal Reflections.”

¹²²² Apache Survival Coalition, news release, “Vatican Spokesman Calls for Suppression of Native Americans,” 12 Oct 1992.

essay she cleverly titled “Personal Reflections upon the Nature of Pride in the context of Mount Graham International Observatory,” ASC lawyer Cummings wrote,

Here we are on the eve of the quincentenary of the former “age of discovery” when such arrogance led to the annihilation of millions of native peoples. What did we learn? Will the Mt. Graham International Observatory really reveal the origins of the universe as the Vatican promises? Or are they not a monument to the sins of our fathers? Instead of showing compassion in the face of the Apache’s sincere belief and instead of demonstrating remorse for their past conquests, there has been no change of heart by the colonists. The Church could have taught the world a great moral lesson about atonement, grace, and humility. Instead it persists in its crusade against the infidels.¹²²³

Coyne responded by stating that his “‘suppression’ comments were meant for environmentalists, not Apaches.”¹²²⁴

Among other environmental activists, Bob Witzeman of the Maricopa Audubon Society took Coyne to task. In an article for Grand Canyon Chapter of the Sierra Club, Witzeman restated much of the history regarding UA, particularly its avoidance of all environmental, religious, and cultural protection laws, as well as the UA’s use of “two Jesuits as ‘experts’ on Apache religion.” Witzeman cited Coyne as stating, “If they could show Apaches buried under the telescope or some clear evidence that the specific ground the telescope is on is sacred, then we’d reconsider.” Witzeman countered, “So by Coyne’s logic he would find no problem with McDonald’s building on top of the Wailing Wall in Jerusalem, or the Israeli military putting radar antennas on top of the Church of the Holy Sepulcher”—references to two holy places specifically to Judaism and Christianity where any development would obviously be deemed inappropriate, unacceptable, and sacrilegious. According to Witzeman,

The head Jesuit in the world, Father Peter Hans Kolvenbach, in Italy, and also the Bishop of Tuscon, Manuel Moreno, both have written letters stating that they do not believe Mt. Graham is a moral issue of concern to the Church. They both wrote in their letters that they are leaving the matter in the hands of the U.S.

¹²²³ Patricia J. Cummings, “Personal Reflections upon the Nature of Pride in the context of Mount Graham International Observatory,” 7 Oct 1992; Apache Survival Coalition, “Vatican Spokesman.”

¹²²⁴ See Jim Erickson, “Astronomer-Priest Contends that Science, Religion Don’t Clash,” *Arizona Daily Star* (Tucson), 11 Nov 1992; Bron Taylor, “Resacralizing Earth: Pagan Environmentalism and the Restoration of Turtle Island,” in David Chidester and Edward T. Linenthal, eds., *American Sacred Space* (Bloomington: Indiana University Press, 1995), 125-126, 149.

Federal Court system. Can one imagine the Catholic Church telling their faithful they are going to have nothing to say about abortion and leave that in the hands of the courts! Archbishop Daniel Pilarczyk, president of the National Conference of Catholic Bishops, also dodges the moral issue. He writes that Mt. Graham is not a suitable moral issue for the Conference and that it is a matter between the pope and Tucson's Bishop Moreno.¹²²⁵

The unwillingness of Vatican officials to meet with Apaches and environmentalists or to seriously “reconsider” involvement in astronomy conducted on Mount Graham, as well as their willingness to join lawsuits, all pointed toward a collective onslaught against Apaches, environmentalists, and Mount Graham.¹²²⁶ In the end, opposition to the Vatican's activities on Mount Graham came from outside, rather than within, the Church.

As ethicist Bron Taylor has written, various statements by Coyne “illustrate the incompatibility between the worldviews of Coyne and his opponents.”¹²²⁷ Indeed, at the root of the struggle for Mount Graham is a battle of competing cosmologies, ontologies, and epistemologies, or rather a fight between differing views of the universe, conceptualizations, and knowledge and knowing, particularly a contestation of western knowledge versus Indigenous knowledge.¹²²⁸ Coyne's statements here, as well as his March 1992 affidavit, “Statement of the Vatican Observatory on the Mount Graham international Observatory and American Indian Peoples,” and his April 1992 “Statement of the Vatican Observatory on the Mt. Graham International Observatory (MGIO), The Ecology of Pinaleño Mountains, and Related Political Issues,” set the stage for a

¹²²⁵ Bob Witzeman, “Vatican Spokesman Calls for ‘Suppression’ of Environmentalists,” *Canyon Echo* (Grand Canyon Chapter of Sierra Club), Feb 1993: 9.

¹²²⁶ See Terrazas, “Vatican telescope showing a most unholy disrespect.”

¹²²⁷ Taylor, “Resacralizing Earth,” 125.

¹²²⁸ “Mount Graham belongs to everyone,” editorial, *Eastern Arizona Courier* (Safford, AZ), 29 May 2002. See also John Scott, “Litmus test proposed for ‘pseudo-science,’” *SciDev.Net: Science and Development Network*, 28 May 2002, www.scidev.net/News/index.cfm?fuseaction=readnews&itemid=165&language=1, accessed 13 Jun 2005; Duane Blue Spruce and Tanya Thrasher, ed., *The Land Has Memory: Indigenous Knowledge, Native Landscapes, and the National Museum of the American Indian* (Chapel Hill: University of North Carolina, 2009). See the excellent work by The Cosmic Serpent Project, a National Science Foundation-supported organization that seeks to “explore the commonalities between western and native science,” at www.cosmicserpent.org, accessed 3 Apr 2010.

cancelled meeting between traditional Apaches and the Pope, and most obviously display the competing worldviews that run throughout the struggle for Mount Graham.¹²²⁹

In May 1992, a delegation of San Carlos Apaches traveled throughout Germany and Italy in an effort to meet with Vatican officials, as well as members of the astronomical associations affiliated with the telescope project.¹²³⁰ Led by Apache Survival Coalition chairperson Cassadore Davis, spiritual leaders Stanley and Brenda Kenton, and Apache Survival Coalition board member Michael Davis, “The delegation met with representatives of the German and Italian parliaments, the city governments of Rome and Florence . . ., concerned citizens, [and] religious and cultural groups in Germany, Italy and Holland.” Although the group had some success with officials in cities such as Rome and other municipalities that “passed resolutions asking the Vatican . . . to withdraw from Mt. Graham,” at the last minute, the delegation was denied a meeting with Pope John Paul II. According to an article in *Moccasin*, a newspaper for the San Carlos Apache, “Oscar Scalfaro, Speaker of the House of the Italian Parliament, criticized the telescopes as science without consideration for human values, stating that ‘selfishness is the root of all evil.’”¹²³¹

The group of elders and medicine people were motivated by recent support from the tribal council for the Tohono O’odham Indians, longtime enemies near Tucson of the Apaches, that voted 20-0 to oppose the telescope project, as well as news that “After removal of the forms . . ., the Vatican’s entire cement superstructure was found to be defective and all its cement would have to be removed with jackhammers.”¹²³² In fact, Apaches believe that the *gaan* supernaturals protected the mountain. Apache people constantly reminded potential investors in the astrophysical project that the cement had to

¹²²⁹ Coyne, “Statement of the Vatican Observatory on the Mount Graham International Observatory and American Indian Peoples”; George V. Coyne, The Vatican Observatory, “Statement of the Vatican Observatory on the Mt. Graham International Observatory (MGIO), The Ecology of Pinaleno Mountains, and Related Political Issues,” <http://vaticanobservatory.org/ecology.html>, 22 Apr 1992.

¹²³⁰ Associated Press, “Apaches visit Europe in bid to halt Mount Graham telescope,” *Arizona Daily Star* (Tucson), 24 May 1992; Sal Salerno, “Apache delegation returns European tour of protest,” *The Circle* (Minneapolis), 13, 6 Jun 1992, 28.

¹²³¹ “Apache delegation denied audience with pope.”

¹²³² See Karen M. Strom, “Mt. Graham and the University of Arizona Astronomers,” (n.d., probably early 1995), 4-5, <http://www.hanksville.org/voyage/misc/MtGraham.html>.

be removed, that Emerald Peak turned out to be too windy, that the incorrect size wire was used in UA's wind gauges, and that the mountain was too windy to open and close Max Planck's Submillimeter Telescope doors.¹²³³ The group carried with them a petition signed by 15 respected San Carlos Apache medicine people and spiritual leaders that declared,

We the undersigned spiritual leaders of the Apache people acknowledge the central sacred importance of *dzil nchaa si an* (Mt. Graham) to the traditional religious rights of the Apache. We oppose the Mt. Graham telescope project because it will interfere with the ability of the traditional Apache to practice their religion.¹²³⁴

The group was not only brushed off by the Vatican but also representatives of Max Planck and Arceti Observatory. In fact, the astronomers at Arceti Observatory "refused to allow the Apache to speak. The Apache then got up and walked out. The director of the Max Planck Institute of Germany has repeatedly said that his schedule is too full and he has been unable to meet with either Apache or environmental representatives."¹²³⁵ As they struggled to find an audience, Apache concerns were repeatedly pushed aside by astronomers and Vatican officials. According to former UA student Guy Lopez,

The Vatican is a megainstitution. It's been around for two thousand years. It's a church on the one hand and a government on the other. Depending on what you want and what they want, they can invoke their state's rights, or they might invoke their papal authority. They overrode the commitment that the pope made to meet with the Apaches to cancel the meeting. I can't say if the pope knew about it. I know the secretary of state of the Vatican knew about it. Also the

¹²³³ Violet Astor Little, "Are spirits of mountain getting even with university?" letter to editor, *The Arizona Republic* (Phoenix), 22 Apr 1993; Violet Astor Little, "UA only institution to sue Indian people for their beliefs," *Arizona Daily Wildcat* (University of Arizona), 16 Apr 1993; Violet Astor Little, "Bad luck follows the University," letter to editor, *Eastern Arizona Courier* (Safford), 14 Apr 1993; Associated Press, "Men say they're cursed for stealing Hopi idols," *The Arizona Daily Star* (Tucson), 30 Mar 1993.

¹²³⁴ Petition collected by Ola Cassadore Davis, signed 10-11, 27, 29 Apr 1992, 2 May 1992. The 15 signatories included: Franklin Stanley, Harold Kenton, Anthony Logan, Perry Harney, Sr., Houston Hinton, George Starr, Sr., Brenda Kenton, Norwyn Wesley, Larry Mallow, Sr., Dickson Dewey, Darrell Dewey, Norton Edwards, Gladys Pike, Alice Wesley, and Chesley Wilson, Sr. Another petition was signed in Feb 1994 by Caroline Cody, Alfred Thorne, Hattie Thorne, Ernst Cutter, George Starr, Sr., Rachel Nash, and Mae Dewey. This petition was later mentioned by anthropologist Keith Basso when he spoke during a meeting of the University of Minnesota Faculty Senate on February 26, 2004. See University of Minnesota, University Senate, Faculty Senate, and Twin Cities Campus Assembly (with the campuses of Duluth, Crookston, and Morris via phone), meeting, 30 Oct 2003, transcribed by author.

¹²³⁵ "Apache delegation denied audience with pope."

delegation to the United Nations, as well as the bishop of Tucson, I know they know. At one point several years ago the Apaches were granted an audience with the pope. At the last minute the delegation was turned down, even though they were already in Rome.¹²³⁶

When the delegation returned from Europe, it took part in a San Carlos Apache Tribal Council-supported national conference that drew attention to sacred sites struggles.¹²³⁷

But the pope did not brush off the concerns of all Apaches. Vatican officials, possibly unbeknownst to the pope, performed bait and switch tactics. Such action was possible since Coyne was “a close associate of the Pope” and was therefore able to manipulate the situation.¹²³⁸ A group of telescope supporters was permitted to meet the pope in June 1992, including several Apaches (Norma Jean Kinney, William Belvado, Geri Kitcheyan, Vera Belvado, and Karen Kaye Long), a Graham County Chamber of Commerce representative (Delores Jaksich), and a UA Steward Observatory official (Elizabeth Maggio).¹²³⁹ According to well-known activist Carolina Butler, “Three of the five greeted by the Pope were arrested [in 1991] for blocking the tribal hall door.”¹²⁴⁰ Called “The People’s Rights Coalition,” the group left for Europe without its leader, former San Carlos Apache Tribal Chairman, Buck Kitcheyan, because a tribal judge forbade him from traveling after his arraignment in July 1991 for charges relating to his embezzlement and theft of tribal funds.¹²⁴¹ Still, the Graham County Chamber of

¹²³⁶ Huston, *A Seat at the Table*, 157.

¹²³⁷ “Apache’s dream inspires struggle: Freedom of religion is discussion topic at state conference,” *The Arizona Republic* (Phoenix), n.d. The conference was titled “Threatened Native American Holy Places: A Conference on Sacred Sites and Native American Religious Freedom, With a Ceremonial visit to *Dzil Nchass Si An* (Mt. Graham),” Tucson, 28-30 May 1992. See also, K. J. Scotta, “Indians to continue Mt. Graham battle,” *Tucson Citizen*, n.d., 2B.

¹²³⁸ Quoted in Hitt, “Would You Baptize an Extraterrestrial?” 36.

¹²³⁹ “Kitcheyan Going to Europe to support observatory site,” *San Carlos Apache Moccasin*, n.d.; Cindy Wooden, “Pope greets Apaches who support Mount Graham telescope,” *The Catholic Sun* (Phoenix), 2 Jul 1992; “Apaches supporting telescope project see Pope John Paul II,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 8, no. 96, 14 Jul 1992; Elizabeth Maggio, “Delegation travels abroad to support MGIO,” *Lo Que Pasa, UA Community News/Calendar*, 10 Aug 1992.

¹²⁴⁰ Butler, “Sacred Apache mountain deserves Vatican respect.” See “Blockage of tribal hall results in 4 arrests,” *The San Carlos Apache Moccasin* (Globe, AZ), 9 Jul 1991.

¹²⁴¹ Steve Yozwiak, “Ex-Apache leader grounded,” *The Arizona Republic* (Tucson), n.d. [Jun 1991]; “Recall election reviewed: Kitcheyan arraigned on theft charges,” *Eastern Arizona Courier* (Safford), 17 Jul 1991, 1A, 5A; Tara Meyer, “Apaches to lobby without leader,” *Arizona Summer Wildcat* (University of Arizona), 11 Jun 1992, 1, 2; Tara Meyer, “Apaches leave for Europe leaderless,” *Arizona Summer Wildcat* (University of Arizona), 16 Jun 1992; Tara Meyer, “Meeting with Pope angers tribal group,”

Commerce claimed in June 1992 that he was still “Chairman of the [San Carlos Apache] Tribe.”¹²⁴²

Once a defender of Mount Graham, in 1990 Buck Kitcheyan wrote to the U.S. Forest Service: “Since time immemorial, Mt. Graham has been a sacred mountain to the Apache people.”¹²⁴³ One year after writing this letter, the expelled Chairman, facing enormous legal and court costs, reversed his stance on the sacredness of Mount Graham and became UA’s Apache religious expert.¹²⁴⁴ The San Carlos Apache tribal council was quick to distance itself from Kitcheyan. In correspondence on official tribal letterhead to Germans interested in learning about Apache opposition to the project, all nine elected council members of the San Carlos Apache Tribe mentioned that the Apache Survival Coalition has the “full support and blessings” of the San Carlos Apache Tribal Council, but that ““The People’s Rights Coalition’ is a politically motivated group of people who will do and say anything that will go against the San Carlos Apache Tribal Government.”¹²⁴⁵ According to one Councilman, “The ... supporters of the ousted

Arizona Summer Wildcat (University of Arizona), 23 Jun 1992. See also, “Kitcheyan guilty on fourteen counts,” *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 16, 15 Dec 1992; Ann-Eve Pederson, “Former San Carlos Apache Chairman Pleads Guilty to Embezzling \$63,312,” *Arizona Daily Star* (Tucson), 8 Jul 1994; “Kitcheyan pleads guilty; sentencing Sept. 19 in Tucson,” *San Carlos Apache Moccasin* (Globe, AZ), 12 July 1994; Chad Unrein, “Former Apache chairman to be jailed,” *Indian Country Today*, 8 Dec 1994.

¹²⁴² Jack Hyde, Graham County Chamber of Commerce, press release, 4 Jun 1992.

¹²⁴³ Buck Kitcheyan to David F. Jolly (National Forester, U.S.D.A., U.S. Forest Service), letter, 31 Aug 1990. See David F. Jolly (National Forester, U.S.D.A., U.S. Forest Service), letter, 7 Sep 1990.

¹²⁴⁴ Peter La Chapelle, “Mt. Graham not sacred, ex-tribal chairman says: Claims official ‘used’ by environmentalists,” *Arizona Daily Wildcat* (University of Arizona), 29 October 1991; Peter La Chapelle, “Letter was only way to begin inquiry, Kitcheyan says,” *Arizona Daily Wildcat* (University of Arizona), 8 Nov 1991; Edison Cassadore, Letter to Editor, “How can telescope benefit poor, uneducated Apaches?,” *The Arizona Republic* (Phoenix), 20 Apr 1992; “Kitcheyan denied trip to Europe,” *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 92, 16 Jun 1992; Genrich, “Mt. Graham: Holy war for the Arizona mountaintop.”

¹²⁴⁵ The San Carlos Apache Tribe to Jutta Müller, letter, 24 Aug 1992, 2. A letter from German Parliament member Jutta Müller confirmed that she was lied to by the Peoples Rights Coalition. See Jutta Müller to San Carlos Apache Tribe, letter, 21 Jul 1992; “German council confused on Mount Graham project support,” *San Carlos Apache Moccasin* (Globe, AZ), 4 Aug 1992; Ernest Victor, Jr., Ola Cassadore Davis, and Carolina Castillo Butler, “Council Reaffirms Traditional Values on *Dzil Nchaa Si An* (Mt. Graham),” press release, 29 Aug 1992; “Council answers in letter to Germans,” *San Carlos Apache Moccasin* (Globe, AZ), 1 Sep 1992. Numerous other letters from San Carlos Apache Tribal Councilmembers attempted to explain that members of the Peoples Rights Coalition did “not represent the San Carlos Apache Tribal Government in any official capacity, nor the people of the Reservation.” See Ernest Victor, Jr., to Sister D. H. Van Amersfoort, letter, 28 Jul 1992.

chairman are the only group that seem [sic.] to be making alot [sic.] of ... false statements.”¹²⁴⁶ Buck Kitcheyan’s wife, Geri Kitcheyan, made the trip in his place, as did his daughter, Karen Long, and political supporters.¹²⁴⁷ They became the only group of Apache telescope proponents and their testimony was used by Jesuit astronomers as justification for their actions.¹²⁴⁸

Buck Kitcheyan was not the first or the last Apache to reverse his statements regarding Mount Graham. According to Warshall, an anthropologist and biologist who conducted some of the early Environmental Impact Statements on Mount Graham,

the real crown of successful conquest is the manufacture of denial among the conquered people themselves. The astronomical consortium supported Apaches (e.g., non-traditional, non-religious, from mixed marriage with other bands, opportunistic) who would say publicly that the peaks were not sacred. The University [of Arizona] and the local Chamber of Commerce, for instance, supported Buck Kitcheyan, a former tribal chairman who later served time for embezzling funds. As tribal chairman, he wrote a glowing letter on the sacredness of Mt. Graham.¹²⁴⁹ During his trial, he reversed himself. Other members of the Kitcheyan family then received funds to visit the Vatican. They were photographed with the Pope as the “real” Apaches who did not mind the leveling of the peaks. Tribal Chairman Harrison Talgo ran for office defending the sacredness of Mt. Graham, then lost his re-election.¹²⁵⁰ Disappointed, he accepted

¹²⁴⁶ Victor to Van Amersfoort.

¹²⁴⁷ The People’s Rights Coalition, also known as the San Carlos Apache Rights Coalition (SCARC), was successful at getting some Indian writers to accept their pro-telescopes story. See Carlos Peinado, “International News: Mt. Graham—the Other Side of the Mountain,” *AICH [American Indian Community House] Community Bulletin* (New York), vol. VII, no. XII, Late Summer/Early Fall Issue 1992, 9.

¹²⁴⁸ See the signed testimonies of Buck Kitcheyan, Karen Kaye Long, William Belvado, Norma Jean Kinney, and Leslie Eva K. Long (Jun 1992). Coyne included the testimonies from this unofficial delegation in a package he sent to the general public. Leslie Long was only a sophomore in high school at the time she wrote her testimony. See Ola Cassadore Davis, “Stanley not informed,” letter to editor, *Eastern Arizona Courier* (Safford), 11 Dec 2002, A3.

¹²⁴⁹ Kitcheyan to Jolly.

¹²⁵⁰ “New tribal officials take oath of office,” *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 15, 8 Dec 1992. As Tribal Chairman, Talgo once stated that the Apaches for Cultural Preservation “should keep doing what you’re doing, somebody has to do it.” See “Runners go cross country for sacred run,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 8, no. 44 (13 Jul 1993). Talgo spoke about Mount Graham’s sacredness and about the importance of protecting sacred lands before a number of groups in Arizona and elsewhere. For more on Talgo, see Sandra Rambler to University of Minnesota Senate Social Concerns Committee (copied to Mark Yudof, Yvonne Novack, and Norman Deschampe), letter, 2 Mar 2002, 2; Arek Sarkissian II, “Mount Graham protesters storm Administration building,” *Arizona Daily Wildcat* (University of Arizona), 20 Feb 2002; Harrison Talgo, letter to editor, *Tip Magazine* (Berlin, Germany), no. 20, Nov 1995; Bernice Harney, letter to editor, *Tip Magazine* (Berlin, Germany), no. 22, 1995; Harrison Talgo, “Apache Tribe did not oppose Mount Graham telescope,” letter to editor, *Canton*

a University offer to become a crew foreman at the telescope site. The University had another Apache who proclaimed that “sacredness” was passé, an obsolete fossil of pre-modern Apaches.¹²⁵¹

Cassadore Davis put it another way: “Now [Buck Kitcheyan] has changed sides. It’s like in the old days when the white people used other Apaches as scouts to defeat those opposing the white people. They still want to divide us ... against each other to win something.”¹²⁵² Historical efforts to divide and take advantage of divisions within Indian communities, like those documented in the once-secret Booz-Allen report to UA, played out in this instance, as they had during the nineteenth century.¹²⁵³

These divisions were displayed clearly on a number of occasions, especially during forums on environmental and religious issues before the UA Faculty Senate and Board of Regents in March 1992. Invited speaker Buck Kitcheyan claimed that Mount Graham has “no religious or sacred significance” to the San Carlos Apache Tribe. Kitcheyan said, “I’m sad and my heart hurts because these people (non-Indian observatory opponents), simply to reject progress and development, approached some of my tribal members and used them as token Indians.” Franklin Stanley spoke in Apache. “Mount Graham is “a most sacred mountain,” he stated, and placing telescopes on the mountain is “like taking an arm and a leg off the Apache.” Stanley declared that the entire mountain range, not just the summit, is sacred. According to a reporter from *The Arizona Daily Star*, “Stanley said the 30-mile paved road up the mountain, the artificial lake stocked with fish, the summer homes and Bible Camp, the logging, hunting,

Repository (Canton, OH), 10 Feb 1996; Gretchen Sutton, “Apache Tribe opinion splits on telescope,” *The Lantern* (Ohio State University), 14 Nov 1996; David Lore, “New tribal council may swing telescopes,” *The Columbus Dispatch* (Columbus, OH), 1 Dec 1996; Gretchen Sutton, “Telescope project blurred by sacred land,” *The Lantern* (Ohio State University), 10 Feb 1997; Harrison Talgo, “Apaches divided on Mt. Graham issue,” *The Lantern* (Ohio State University), 14 Feb 1997; David Hodges, “Harrison Talgo finds offense with quotes attributed to myself,” *The Lantern* (Ohio State University), 7 Mar 1997; Gretchen Sutton, “Opponents to Ohio State’s involvement in a controversial telescope,” *The Lantern* (Ohio State University), 30 Apr 1997; Steve Lipsher, “Arizona’s Star Wars: Business, not science, was at the heart of a battle to build an observatory near Tucson,” *The Denver Post*, 18 May 1997, 14.

¹²⁵¹ Peter Warshall, “The Heart of Genuine Sadness: Astronomers, politicians, and federal employees desecrate the holiest mountain of the San Carlos Apache,” *Whole Earth* no. 91 (Winter 1997): 30-36.

¹²⁵² “Kitcheyan denied trip to Europe,” *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 92, 16 Jun 1992.

¹²⁵³ See Booz-Allen & Hamilton, Inc., final report, “University of Arizona: Mount Graham Observatory Review Issues,” Tucson, Arizona, 23 Oct 1991, 1-42.

communications facilities, ranches, orchards and campgrounds on the mountain do not desecrate it. Telescopes are different, he said.” Stanley said, “I don’t consider scientists God, and you cannot supersede a supreme being. . . . The heavens belong to God.”¹²⁵⁴ Ernest Victor, Jr., put it differently: “I’m a full-blooded Apache. The Vatican don’t tell me how to pray. What the Vatican said about Mount Graham is the same thing as [Christopher] Columbus forcing religion on Native Americans. Today you have done the same.” About the forums, a reporter for one newspaper noted, “Friday’s crowd . . . heard members of the San Carlos Apache Tribe contradict each other,” which led Arizonans to believe that Apaches were evenly divided on this issue.¹²⁵⁵

While the group that was authorized by the San Carlos Apache Tribe to work against the telescope project could not gain an audience with the pope, the other delegation, led by “Geri Kitcheyan and her group of San Carlos Apaches, who favor the telescopes, were greeted by the pope’s astronomy director and taken on a private tour of the Vatican Observatory [at Castel Gandolfo]. They also visited the Sistine Chapel, met with an official of the Vatican Secretariate and were escorted by Swiss guards to a speech by the pope, who greeted them individually and posed for snapshots.”¹²⁵⁶ In a memo to “Concerned Persons,” Coyne confirmed the group’s two-day-long red carpet treatment.¹²⁵⁷ Photos of the delegation with the pope were used by UA, through the administration’s newsletter, in August 1992.¹²⁵⁸ When the Vatican astronomers had stated their willingness to meet with “authentic” Apaches, they certainly referred only to Apaches they picked who were willing to agree with astrophysical development.¹²⁵⁹ In addition to meeting with Pope John Paul II, the group visited “with the organizations that denied meetings with members of the Apache Survival Coalition that visited Europe a couple of weeks before. They talked with both the Max Planck Institute and the Arcerti

¹²⁵⁴ Jim Erickson, “Mount Graham is ‘most sacred’: Building telescopes there is called disrespectful,” *The Arizona Daily Star*, 28 Mar 1992.

¹²⁵⁵ David Hoye, “Charges fly in final debate over telescope controversy,” *The Phoenix Gazette*, 28 Mar 1992, 12.

¹²⁵⁶ Dennis Wagner, “Pope can’t see Apaches for the telescopes,” *The Phoenix Gazette*, 7 Jul 1992.

¹²⁵⁷ George Coyne to Concerned Persons, “Re: Visit of a Delegation of the San Carlos Apache Tribe to Vatican City State and to the Vatican Observatory,” memo, 18 Jun 1992.

¹²⁵⁸ See the photo in *Lo Que Pasa, UA Community News/Calendar* (University of Arizona), 10 Aug 1992.

¹²⁵⁹ Dale Miles, “Editorial,” *San Carlos Apache Moccasin* (Globe, AZ), 14 Jul 1992.

Observatory. Both of these organizations gave the group as much time as was needed to air their view of support for the Mt. Graham telescope project and to deny the sacredness of Mount Graham.”¹²⁶⁰



“A marble stairway provided the backdrop when....”¹²⁶¹

At the time, San Carlos Apache tribal councilman Wendsler Nosie, stated,

Based on the recent statements made by the Apache People’s Rights Coalition who aired their view of support for the Mt. Graham telescope project which denies the sacredness of Mt. Graham, it is apparent that Karen Long, Norma Jean Kinney and Mr. and Mrs. Belvado have not worn their *Keban* (moccasins) for sometime. ...

According to sources from Graham County their trip to Europe was financed by a person who wants to remain anonymous. This alone indicates that

¹²⁶⁰ “Apaches supporting telescope project see Pope John Paul II.”

¹²⁶¹ The Spring 2006 issue of the *Vatican Observatory Newsletter* erroneously states, “In 1986, women from the Apache Indians tribe met with Pope John Paul II. This tribe worked with Father Coyne in the establishment of the VATT on Mount Graham.” The photograph is actually from 1992. See <http://vaticanobservatory.org/Newsletters.html>, accessed 18 Apr 2009. See also, *Lo Que Pasa, UA Community News/Calendar*, 10 Aug 1992.

the People's Rights Coalition did not represent the San Carlos Apache people. So their effort to discredit the Apache Survival Coalition efforts that were given authorization by the tribal council to represent the Apache people was totally disrespectful.¹²⁶²

As one Tucson resident stated in a letter to an Arizona newspaper, "Even more shocking than this 'renegade' delegation are the renegade priests and cardinals who now mislead the Pope."¹²⁶³ One columnist at the time put it this way: "So it goes. In the saga of red squirrels and refracting mirrors, you can add a little more politics, a little papal bull."¹²⁶⁴

Jesuit astronomers and their allies—through their public comments—continued to stay in the news throughout 1992. During a taped interview in April 1992, with UA student Guy Lopez, Charles Polzer stated that "the opposition to the telescopes and the use of Native American people to oppose the project on religious grounds are part of the Jewish conspiracy that comes out of the Jewish lawyers of the ACLU [American Civil Liberties Union] to undermine and destroy the Catholic Church."¹²⁶⁵ His statement was another misstep for the Vatican and UA, since Polzer worked at the time for UA's Arizona State Museum as curator. The remarks were made public in August 1992 and immediately added support to arguments by Apaches and environmentalists that the Roman Catholic Church was out of touch with reality. Apparently directed at environmentalists Witzeman (a Lutheran) and Robin Silver, Polzer also took aim at the ACLU and kept alive longstanding fears within the Roman Catholic Church about Jewish efforts to maliciously scheme against, marginalize, and destroy the Catholic faith. Polzer's comments hearkened back to the years following World War I when Henry Ford asserted a "Jewish conspiracy" to control the world and published his diatribes in *The Dearborn Independent*, which turned into the book titled *The International Jew: The*

¹²⁶² "Nosie counters People's Rights claims," *San Carlos Apache Moccasin* (Globe, AZ), 8, no. 98, 28 Jul 1992.

¹²⁶³ Naomi Green, "Battle over Mt. Graham," *Tempe Mesa Chandler Tribunes*, 6 Aug 1992; Naomi Green, letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 4 Aug 1992. See also, Carolina Butler to Father George Coyne, letter, 29 Jun 1992.

¹²⁶⁴ Wagner, "Pope can't see Apaches for the telescopes."

¹²⁶⁵ AP, "Priest admits 'Jewish conspiracy' remark," *Chandler Tribunes* (Tempe and Mesa, AZ), 16 Aug 1992; Jess Huffman, "Astronomy Industry Threatens Sacred Site: Vatican Denies Apache Claim to Religious Significance: Studies Falsified by Wildlife Officials," *21st Century News* (West Palm Beach, FL), Nov 1993.

World's Problem. His words also echoed anti-Semitic statements of Father Charles Coughlin nearly a half century earlier than Polzer. UA's promotional literature once boasted that the telescope "construction is expected to be well underway by 1992, the 500th anniversary of the Italian explorer Christopher Columbus." Michael Schwartz, a member of the Alliance of Cultural Democracy and an opponent of the Columbus Project, once pointed out: "We must never forget that Columbus was funded with monies pirated from sephardic Jews by King Ferdinand and Queen Isabel from the 1492 Edict of Expulsion."¹²⁶⁶

In response to the outrage from the public, Polzer stated, "from my heart, there has never been an intent to say anything anti-Semitic or anti-Jewish." Continued Polzer, "in a heated conversation (with Lopez), I may have made a reference to the Jewish involvement or something with the ACLU."¹²⁶⁷ Polzer's inability to take full responsibility for his comments fueled the fire and "a storm of protest came against the Catholic priest."¹²⁶⁸ Lopez demanded an inquiry by UA and Arizona State Museum into Polzer's comments. Lopez said, "In the very least, the statement was a violation of professional ethics." Furthermore, according to Lopez, "The university's response so far has been inadequate. They blamed the activists for their own racism."¹²⁶⁹ Lopez requested that Polzer resign from the Christopher Columbus Quincentenary Commission, a post that he had held since 1985.¹²⁷⁰

¹²⁶⁶ Sal Salerno, "San Carlos Apaches Demand Halt to Columbus Project," *The Circle* (Minneapolis), Jul 1991, 19.

¹²⁶⁷ AP, "Priest admits 'Jewish conspiracy' remark."

¹²⁶⁸ "Priest in trouble for anti-Jewish statement," *San Carlos Apache Moccasin* (Globe, AZ), 1 Sep 1992. See "Douglas Kreutz, "Priest denies he intended Mount Graham remarks to be anti-Semitic," *The Arizona Daily Star* (Tucson), 14 Aug 1992.

¹²⁶⁹ Bridget A. Morrissey, "Priest violated UA ethics code, anti-telescope activist claims," *Arizona Daily Wilcat* (University of Arizona), 25 Aug 1992.

¹²⁷⁰ Morrissey, "Priest violated UA ethics code." See also, "Museum official is named to Columbus commission," *Arizona Daily Star* (Tucson), 13 Jun 1985; The American Presidency Project, "Appointment of 22 Members of the Christopher Columbus Quincentenary Jubilee Commission," <http://www.presidency.ucsb.edu/ws/index.php?pid=38759>; Smith, *A Seat at the Table*, 152. For a critique of the Columbus Commission, see Steven J. Summerhill and John Alexander Williams, *Sinking Columbus: Contested History, Cultural Politics, and Mythmaking During the Columbus Quincentenary* (Gainesville: University of Florida Press, 2000).

Maricopa Audubon Society's Silver, who released to the media the transcript of Polzer's comments, stated, "It speaks for his (Polzer's) judgement in judging other people's religion." Activists and attorneys with no relation to the struggle responded to the accusations: "Jerry Shapiro, an associate director at the time of the Anti-Defamation League of B'nai B'rith's regional office in Los Angeles, called Polzer's remarks 'disturbing, but all too common.'" Louis Rhodes, executive director of the Arizona Civil Liberties Union, "said his organization," which had never taken a stance on the Mount Graham telescope complex, "would defend Polzer's right to express his views." Stated Rhodes, "It's a free-speech right to say what he [Polzer] believes, no matter how truthful or narrow-minded or bigoted or racist it might be."¹²⁷¹

Perry Harney, a traditional Apache spiritual leader from San Carlos who signed the petition against the telescope development, in a letter titled "What's sacred," to the *Arizona Daily Star* in Tucson stated,

A Jesuit priest, The Rev. Charles W. Polzer, who teaches at the University of Arizona, said opponents of the Mount Graham telescopes are part of a Jewish conspiracy to destroy the Catholic Church. Yet Polzer is one of two Jesuits teaching at the UA who submitted affidavits, with Vatican approval, in the UA lawsuit against the Apache. They told the court our Mount Graham isn't sacred. So they would now desecrate and destroy our church—what Polzer accuses others of doing [to the Catholic Church].

How can Polzer say our elders, medicine men and our entire tribal council are wrong? Are not the opposition signatures of 15 of our traditional Apache spiritual leaders and medicine people enough for him? Why does he, a priest, not respect our Apache spiritual leaders?

We are outraged to think that these two Jesuits, who have entered the UA's lawsuit against us Apaches, are claiming we don't know what's sacred. How would the Vatican like us to say the altar of St. Peter's in Rome is not sacred so we can set up a handicrafts concession on it?¹²⁷²

Such references to fictional attacks on sacred Catholic sites, like the protest at the Basilica of Scherpenheuvel in Belgium, seemed lost on an institution and its astronomers who had proven repeatedly that they had aspirations that ran counter to honoring native

¹²⁷¹ Steve Yozwiak, "Priest calls telescope foes part of 'Jewish conspiracy,'" *The Arizona Republic* (Phoenix), 14 Aug 1992.

¹²⁷² Perry Harney, "What's sacred," letter to editor, *Arizona Daily Star* (Tucson), 26 Aug 1992.

peoples and respecting sacred sites and landscapes. The Vatican-supported Jesuit astronomers continued to plot a course that marginalized Apache beliefs and drew attention to their real goals on Mount Graham.

A driving force behind the Vatican attacks on the sacredness of Mount Graham and its efforts to neutralize and silence opposition from Apaches and environmentalists, was the effort by Jesuits to find life in outer space. As Coyne once pointed out,

The physical conditions for life elsewhere in the universe are certain statistically and the evidence is growing. If we look at this from the sort-of church's point of view, the only problem—and it would be to my mind a resolvable problem—would be if that life were like human life; if they had committed what we believe an original sin happened to the human race; if they had been redeemed; and if they had been redeemed by god sending his son as in the Christian tradition—only at that point could we have a theological problem. Namely, how could god have incarnate on two different worlds? But I'm sure that there are ways of resolving that. But before we even get to the need to resolve it, we have all these contingent historical facts to answer: Are they human? Did they fall? Were they redeemed? How were they redeemed? I think the view of the church, at least my view, is a very careful one from the theological point of view. It's to say it would be exciting if we were not [alone]—I think it would enrich our own experience of being human if there were human beings elsewhere.¹²⁷³

Theological questions regarding extraterrestrial life have interested the Vatican and Catholic astrophysicists for centuries. In fact, the Dominican theologian and philosopher Giordano Bruno, whose case predates Galileo's, was burned at the stake during Roman Inquisition in 1600 for his belief in heliocentrism, modern scientific ideas, and his “assertion of the plurality of inhabited worlds.”¹²⁷⁴ Angelo Secchi, director of the Vatican Observatory in the 1800s, “stated that the possible discovery of extraterrestrials wouldn't jeopardize the Catholic faith.”¹²⁷⁵ Indeed, the Catholic Church had long considered the possibility of finding alien life.¹²⁷⁶

¹²⁷³ Goël, *Le Garçon S'Appelait Apache* (This Boy's Name was Apache).

¹²⁷⁴ Piero Bionucci, “After Galileo the Church rehabilitates Giordano Bruno,” *La Stampa* (Turin, Italy), 14 Nov 1992.

¹²⁷⁵ Bionucci, “After Galileo.”

¹²⁷⁶ The U.S. government has also been in search of alien life, but not for quite as long. See the cover story by Andrew Romano with Fred Guterl, “In Search of Aliens: NASA is out there looking ... and 24 other surprising things you need to know,” *Newsweek*, 24 and 31 Aug 2009, 50-51.

In an October 1992 interview with London's *Daily Telegraph*, Coyne stated that if intelligent inhabitants were found on other planets, "the Church would be obliged to address the question of whether extra terrestrials might be brought within the fold and baptized. Why not, if we have the pleasure of meeting them?" As Coyne put it, "one would need to put some questions to him [an alien], such as: 'Have you ever experienced something similar to Adam and Eve, in other words, original sin? ... Do you people also know a Jesus who has redeemed you?'"¹²⁷⁷ In a separate interview, Rev. Chris Corbally, a UA astronomer in Tucson, stated, "I think we'd have to consider whether we should baptize him." Although Corbally denied that the Vatican Observatory was teaming up with NASA to "spread the Gospel to extraterrestrials," he did point out that in the investigations of Jesuit scientists, "We would be open to that sort of thing [searching for extraterrestrial life]."¹²⁷⁸ Such statements were neither the first nor last word on the issue of extraterrestrial life and efforts to "convert" these aliens according to the Vatican, but they caught the attention of the general public at a time when the Vatican was trying to distance itself from the Mount Graham controversy. The comments lasted for years afterward.¹²⁷⁹

In a 1994 article by Jack Hitt in *New York Times Magazine*, Coyne put his comments another way: "O.K., so I meet this 'person.' I would ask him: 'Are you intelligent? Self-reflexive? In the traditional sense do you have what we call a soul?'"

¹²⁷⁷ Bruce Johnston, "Vatican sets evangelical sights on outer space," *Daily Telegraph* (London), 28 Oct 1992; Maricopa Audubon Society, "Mt. Graham scopes to 'spread the Gospel.'"

¹²⁷⁸ Steve Yozwiak, "New heights for theology: Vatican weighs alien converts," *The Arizona Republic* (Phoenix), 18 Dec 1992. The Maricopa Audubon Society in Arizona pointed out:

The Arizona Board of Regents and the University of Arizona have admitted to spending nearly \$14 million so far to promote the Mt. Graham project, approximately \$600,000 of which has gone directly to the Vatican telescope.

NASA has thus far refused to comply with a Freedom of Information Act request for documents concerning the relationship between the US government agency and the Vatican. The relationship between NASA (and most likely, the Arizona Board of Regents) and the Vatican to 'spread the Gospel to the extra terrestrials' violates the First Amendment to the US Constitution which ensures the separation of Church and State.

(Maricopa Audubon Society, "Mt. Graham scopes to 'spread the Gospel.'")

¹²⁷⁹ See Kevin Spurgaitis, "Infinite Sanctuary: As our knowledge of the universe expands, will our understanding of God keep pace?" *The United Church Observer*, www.ucobserver.org/faith/2010/02/infinite_sanctuary, Feb 2010; David La Chapelle, "Y2K: It's About Time," *Talking Leaves*, Winter 2000, www.talkingleaves.org/w00y2k.htm, accessed 13 Nov 2003.

Good. ‘Nice to meet you.’” According to Hitt, “He says he would then find out if their civilization sinned, then if it was redeemed, then if the redeemer was a man named Jesus....” According to Coyne, “If they say, ‘Oh yes,’ now you have a theological problem. How could Jesus Christ be our redeemer on earth and of another planet and still be the one Son of God. Could he have had several incarnations? That’s a pretty ticklish theological problem and I don’t know the answer.”¹²⁸⁰

Other Jesuit astronomers concurred with Coyne in the article. Corbally agreed that he would try to baptize aliens, but “add[ed] dolefully, ‘I would first want to examine the theological data of their beliefs.’” Hitt stated that “Only one priest welcomes the itchy question of extraterrestrials. The Rev. Martin McCarthy is a gregarious Bostonian in his 70’s and the eldest astronomer. In the 1950’s he tutored Pope Pius XII in English and is a Galileo scholar. He bubbles with excitement at the prospect that some scientist somewhere might someday make contact.” Stated McCarthy, “Of course, ... extraterrestrial intelligence is one of the first common religious beliefs that’s held by Christians, Jews and Moslems.” Vatican astronomer Guy Consolmagno stated, “This is our way of finding God.” Consolmagno saw no harmful results from the Vatican’s actions on Mount Graham. “To me it’s not a desecration at all. It’s honoring a sacred site.... It’s part of our philosophy that God reveals himself through creation, and studying creation in a scientific way is a way of coming closer to God,” according to Consolmagno¹²⁸¹

Author Hitt wrote, “The Vatican’s astronomers conceive of science and religion as separate disciplines with different results. These two epistemologies exist in distinct dimensions: science struggles to discover the elementals of our material existence through empiricism, and theology strives to describe the universality of our metamaterial

¹²⁸⁰ Hitt, “Would You Baptize an Extraterrestrial?” 38.

¹²⁸¹ Jim Erickson, “The Vatican’s Eyes On the Heavens,” *SPACE.com*, 16 Jul 2000, www.space.com/scienceastronomy/vatican_observe_000716.html, accessed 23 Feb 2010.

existence through faith.”¹²⁸² After spending a week with the astronomers and visiting Mount Graham, Hitt noted,

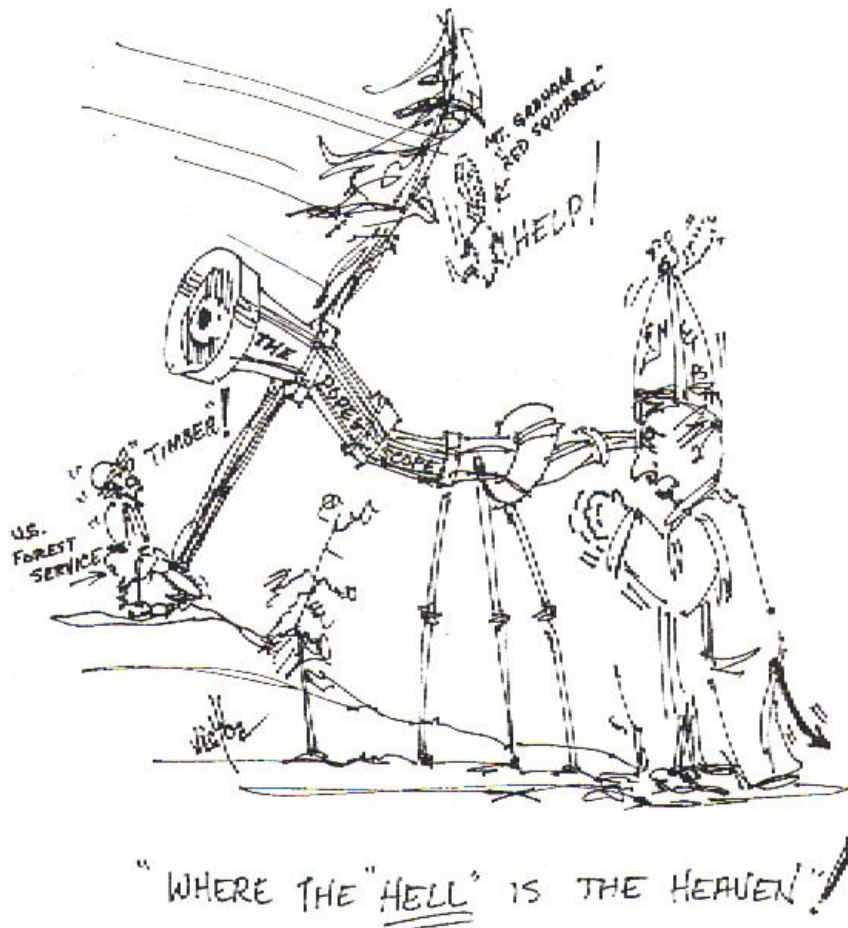
What has made this fight so enduring is that it was never merely a case of squirrels versus scopes, but a war of ideas regarding fundamental views of nature. The astronomers believe that man can move in on nature and work out a deal, even in the canopied forest of the red squirrel. The environmentalists believe that man has cut enough deals and that it is time to leave nature alone.¹²⁸³

Continued Hitt, “In a sense, the battle of Mount Graham signals a profound change in the way all of us look at nature—a paradigm shift, as scientists call it: If Galileo shocked the old order by stating that the earth is not at the center of the solar system, the environmentalists and the Apaches are asserting that man is no longer at the center of nature.”¹²⁸⁴ Comments by Hitt and other authors, as well as the presence of Apaches and environmentalists, challenged the Church’s power, as well as its assertions that it was not anti-science and was not carrying out another colonialist venture.

¹²⁸² Hitt, “Would You Baptize an Extraterrestrial?” 39. For information regarding a similar topic, see Sharon M. Leon, *U.S. Catholics and the Eugenics Movement* (Chicago: University of Chicago Press, forthcoming).

¹²⁸³ Hitt, “Would You Baptize an Extraterrestrial?” 39.

¹²⁸⁴ Hitt, “Would You Baptize an Extraterrestrial?” 39.



“Where the ‘HELL’ is the Heaven!”¹²⁸⁵

In 1997, the *London Times* reported: “Father Chris Connolly, an English Jesuit who is the observatory’s deputy director, said: ‘If civilization were to be found on other planets and if it were feasible to communicate, then we would want to send missionaries to save them, just as we did when new lands were discovered.’”¹²⁸⁶ But as recent research and scholarship has pointed out, “The study of extraterrestrial life has quietly moved from the fringes to prominent centers of scientific discovery.”¹²⁸⁷ A five-day, Vatican-

¹²⁸⁵ Victor, n.d. (possibly Mar 1992). On the left side of the cartoon is a U.S. Forest Service employee cutting down a tree with a Mount Graham red squirrel, while the Vatican astronomer looks through “The Pope’s Scope” to gaze into space.

¹²⁸⁶ Jonathan Lenke, “Pope Builds Telescope to Find God,” *London Times*, 14 Dec 1997; Huston, *A Seat at the Table*, 210.

¹²⁸⁷ Blake Morlock, “Impey: Framework of How Life Evolves Still Largely Unknown,” *Tucson Citizen*, 17 Apr 2002.

sponsored conference in February 2009 brought together astronomers, biologists, and religious officials and “called for the study of the possibility of extraterrestrial life and its implications for the Catholic Church.”¹²⁸⁸

According to Lopez, “The Vatican hierarchy begins with the pope, and the pope has direct authority over the Vatican observatory.” In his opinion,

I think it’s not so much out of scientific interest or curiosity as it is to bolster their institution, because if extraterrestrials did arrive, the Vatican would look pretty silly. Everyone would say, “Why didn’t you tell us what was really going on? Can we believe you anymore?”

What’s really driving them is their belief that they have to be there to interpret and mediate any kind of extraterrestrial encounter so that the stability of society doesn’t crumble—or really the stability of the Vatican. What they will try to do if that scenario ever comes to pass is to make it a Christian experience, while it ought to be a *human* experience. I know that this is a really far-out example, but I think the Vatican maintains a belief, and has made public remarks in an article, that every major religion in the world believes in the existence of extraterrestrials in the form of angels.¹²⁸⁹

According to an opinion column by Joseph Vandrisse, “Their actions [of Jesuit astronomers] are inscribed in a continuum.” Vandrisse quoted “Father Leonhard Kaufmann, a Suisse priest and theologian in Rome,” who stated, “For the moment, at the end of the century, we should be sensible about the visible beings dying each day of neglect or malnutrition. Necessarily, this research of extraterrestrials could become a diversion in the pascalian sense of the word, which obscures our eyes and closes our ears to the cries of the millions of poor on our planet.”¹²⁹⁰

From at least the time of the media’s attention on the Vatican’s interest in finding extraterrestrial life, the Vatican Observatory displayed a habitual pattern of prevarication about the progress of telescope construction, Apache opposition, and other pertinent details that would derail its project. For example, in June 1991, Coyne told an unsuspecting European reporter, “construction begun, telescope 90% complete,” three months before the concrete foundation for the Vatican’s telescope had even been

¹²⁸⁸ Spurgaitis, “Infinite Sanctuary.”

¹²⁸⁹ Huston, *A Seat at the Table*, 154. Emphasis in original.

¹²⁹⁰ Joseph Vandrisse, “Jesuits Dreaming of Martian Baptism,” *Le Figaro* (Paris), Dec 1992.

poured.¹²⁹¹ In a Vatican news release in Europe from December 1991, Coyne stated, “The legal suit of the Apache Tribal Coalition to stop the construction of the observatory has been defeated in the courts.”¹²⁹² This sentence was absent from the Vatican’s U.S. releases, most likely because Americans would have known the sentence was untrue since the Apache people were not even heard in court until April 1992. During the infamous interview in October 1992, when Coyne raised the “complications from a theological point” regarding the possible discovery of intelligent life on other planets, Coyne stated that the Vatican was “joining forces with the US NASA agency to hunt for UFOs and signs of life on planets in solar systems similar to Earth’s.”¹²⁹³ That the Vatican and NASA had teamed up in any way was a fabricated tale, as noted by NASA’s Freedom of Information Officer, Patricia Riep. “NASA has no contact with either the Vatican Observatory or the Vatican Observatory Research Group,” wrote Riep.¹²⁹⁴ Coyne lied about the date of “first light,” the point at which the telescope would begin to be operational. Coyne stated that the Vatican’s new telescope would be “ready for use within the next few days.” And yet, first light came in September 1993, nearly one year after he made this statement.¹²⁹⁵ In 1993, the Tucson group Catholics for Ethics and Justice documented a number of instances where the Vatican had outright lied about the telescopes, progress to date, and the role of the Apaches. In all of these instances, the Vatican has never apologized for its actions, its missteps, or its misstatements.¹²⁹⁶

¹²⁹¹ Coyne sent handwritten responses (“Copy resent with comments and material,” wrote Coyne.) to a letter of inquiries from Ulrich Stewen of Sextant Media Cooperative in Bonn, Germany. See Ulrich Stewen to Father George Coyne, letter, 6 Jun 1991; George V. Coyne to Ulrich Stewen, letter, 10 Jun 1991.

Max Planck astronomers also lied. See comments German astronomer Peter Mezger made to the newspaper *Mainzer Rhein Zeitung* (Mainz), 19 Nov 1991. See also, Nigel Keen, letter to editor, *Frankfurter Rundschau* (Frankfurt am Main), 18 Sep 1991; Nigel Keen to Theodor Rathgeber, Society for Threatened People, letter, 17 Oct 1991. See Apache Survival Coalition, “Recent Attacks by European Astronomers Upon the Apache People and Their Traditional Religious Beliefs,” Dec 1991.

¹²⁹² George V. Coyne, “Draft Statement on the Mt. Graham International Observatory and Native American Peoples,” 4 Dec 1991.

¹²⁹³ “Vatican sets evangelical sights on outer space.”

¹²⁹⁴ Patricia Riep (Freedom of Information Officer, NASA) to Dr. Robin Silver, letter, 8 Jan 1993. See The Southwest Center for Biological Diversity, “Internal AGFD Study: Mt. Graham Squirrel Numbers Inflated: Numbers Inflated to Promote Telescopes,” News Advisory, 2 Dec 1997, 18.

¹²⁹⁵ Hitt, “Would You Baptize and Extraterrestrial?” 36.

¹²⁹⁶ Catholics for Ethics and Justice, “Mt. Graham Jesuits Caught Again!,” News Advisory, 1 Jul 1993.

Vatican astronomers also put forth a number of other misrepresentations about Mount Graham being the only and best site, despite Coyne's own assertions that other sites were better.¹²⁹⁷ In fact, in July 1990, a Catholic newspaper stated that Coyne was "aware of other possible sites that are," in Coyne's words, "very viable and they're in Arizona."¹²⁹⁸ Two days later, the same newspaper reported that if the Vatican faced more delays, "the Vatican Observatory would seek another site for the telescope." Coyne stated, "We will build the telescope regardless of the outcome of this."¹²⁹⁹ Numerous scientific studies pointed out that many other sites in the U.S. were better for astronomy than Mount Graham. Vatican astronomers continued to forge ahead with their telescope project, despite this evidence; tribal, U.S. and European government, and environmental protests; and opposition from Catholics everywhere, especially between 1992 and 1995. After Coyne supported the Vatican's use of money from the U.S. Air Force and Strategic Defense Initiative, stating, "I don't feel a guy's hands are dirty if he gets into the defense pot for pure research," a national Catholic magazine published responses.¹³⁰⁰

Indeed, there was an immense amount of pushback from Apaches and others, especially Roman Catholics, against the Vatican.¹³⁰¹ Local and national groups were

¹²⁹⁷ Coyne, "Mt. Graham International Observatory."

¹²⁹⁸ Nancy Wiechec, "Vatican opposes scope delay: Endangered Species Act said to be in jeopardy," *The Catholic Sun* (Phoenix), 5 Jul 1990: 5

¹²⁹⁹ *The Catholic Sun* (Phoenix), 7 Jul 1990: 3.

¹³⁰⁰ Tim McCarthy, "Vatican dips into U.S. defense pot," *National Catholic Reporter* (Kansas City, MO), 16 Jun 1989, 7. As the director for a number of UA astronomy projects, Buddy Powell objected to McCarthy's reporting. See B. E. Powell, "Mirror Image," letter to the editor, *National Catholic Reporter* (Kansas City, MO), vol. 25, no. 36, 28 Jul 1989. Both McCarthy and James Jordan, founder of the Tucson-based peace group No First Strike, responded to Powell's letter. See *National Catholic Reporter* (Kansas City, MO), vol. 25, no. 36, 28 Jul 1989. For more information regarding UA's use of military money, see, Jim Erickson, "UA team targets lasers to boost scope accuracy," *The Arizona Daily Star* (Tucson), 19 Dec 1993; "UA to add laser system to telescopes," *Eastern Arizona Courier* (Safford, AZ), 29 Dec 1993; Jim Erickson, "UA astronomers receive \$5 million to combat blurring by atmosphere," *The Arizona Daily Star* (Tucson), 29 Apr 1994; Associated Press, "Pilot's blinding dims Vegas lasers," *The Phoenix Gazette*, 13 Dec 1995; William J. Broad, "Military is hoping to test-fire laser against satellite," *The New York Times*, 1 Sep 1997.

¹³⁰¹ Kristy L. Lindgren to Pope John Paul II, letter, 18 May 1992, 1-3; Eric Felker, "No justification," letter to editor, *Scottsdale, Arizona, Progress*, 5 Jun 1992; Eric Felker, "Religious battle," *Arizona Daily Star* (Tucson), 4 Jun 1992; Eric Felker, "Vatican shows no respect," letter to editor, *The Navajo-Hopi Observer*, 17 Jun 1992, 5; Louise Dewey, "Respecting native beliefs," letter to editor, *The Phoenix Gazette*, 24 Jul 1992; Louise Dewey, "Fight is painful and distressing," letter to editor, *Eastern Arizona Courier* (Safford), 29 Jul 1992; Eric Felker, "Observer's editorial on Mt. Graham was well-stated," letter

formed to combat the disinformation from the Vatican and its astronomers; letter-writing campaigns focused on university presidents, government officials, and UA partners; protests occurred in Arizona, throughout North America, and in Europe; delegations of Apaches and environmentalists travelled to Europe and elsewhere where they met with domestic and foreign officials, Congressmen, numerous aides, and staff members in order to educate and introduce legislation to halt telescope development; and they sued in court. Apaches successfully spoke at the National Press Club. San Carlos Apache Councilman Burnette Rope, Sr., said, in reference to the stability and healing that Mount Graham provided Apaches, “The backers of the project don’t realize that what is good for the mountain is good for everyone.”¹³⁰²

Catholics in power did not oppose the project. Not only did the pope refuse to meet with traditional Apaches who opposed the project but so did his representatives at various places throughout the United States and Europe—Tucson, Chicago, Washington, D.C., and Scherpenheuvel, for example. Of the German, Italian, and Vatican embassies, only “The Vatican Embassy in Washington point blank refused to meet with the Apache Tribal delegation” of three acting Tribal Council members in July 1992. According the San Carlos tribal newspaper, “The Vatican’s refusal to see one group and their willingness to talk with another that supports them has raised many questions on fairness and sincerity.”¹³⁰³ Activist Butler, a Mexican-American Catholic, described an instance when, at the Vatican Embassy in Washington, D.C., Archbishop Agostino Cacciavillan, refused to meet with Rope, Sr., Ernest Victor, Jr., and David Thompson, three San Carlos Apache councilmen. Her reaction: “Stonewalled again.”¹³⁰⁴ Later that year, the Bishop of Tucson declined an invitation by the San Carlos Apache Tribal Council to hear their

to editor, *The Navaho-Hopi Observer*, 29 Jul 1992; Louise Dewey, “Basic rights at stake in Mount Graham battle,” letter to editor, *Mesa, Tempe, Chandler Tribunes*, 31 Jul 1992.

¹³⁰² “San Carlos Apache Tribal Council Members Announce Opening of New Front in Effort to Protect Sacred Mountain,” press release, 26 Jun 1992.

¹³⁰³ Apaches met with various European presidents and members of parliament. On June 26, 1992, several Apaches met with the Italian ambassador to the U.S. See “A meeting of nations: Council members meet with Italian ambassador in D.C.,” *San Carlos Apache Moccasin* (Globe, AZ), 7 Jul 1992; “Council members make trip to Washington, D.C.,” *San Carlos Apache Moccasin* (Globe, AZ), 30 Jun 1992; Mary Benanti, “Apaches meet observatory backers,” *Tucson Citizen*, 27 Jun 1992.

¹³⁰⁴ Butler, “Sacred Apache mountain deserves Vatican’s respect.”

concerns.¹³⁰⁵ The actions of the Archbishop and Bishop followed a pattern of avoidance by Catholic officials.

The amount of activism surrounding Mount Graham, in response to actions and statements of Vatican officials, was difficult to fathom. While 1992 was a banner year for Vatican statements regarding Mount Graham, it was also a seminal year for activism against UA but especially the Vatican. Scholars and academics, environmental and cultural-rights activists, government officials, and Apaches themselves lined up to protest the Vatican's involvement with the Mount Graham telescope project. Anthropologist Basso, who had conducted ethnographic and linguistic research among Apaches since 1959, and was "also free from UofA influence," stated that "permanent damage to Mount Graham would be construed by the Apache as an act of religious desecration, of wanton and gratuitous defilement, and its shattering repercussions would be numerous and profound."¹³⁰⁶

The radical environmental group, Earth First!, launched campaigns nationally and internationally to raise awareness in local parishes. At one protest, activists carried a banner that stated, "Catholics, Don't tithe to support pope's scope." "We will continue to protest until the Vatican pulls out. It's hypocritical for the church to speak about equality and then bulldoze a mountain sacred to the Apaches," Dwight Metzger, a spokesman for Earth First! in Tucson, said in March 1992.¹³⁰⁷ A 1989 editorial from the *National Catholic Reporter* took aim at the Vatican's argument that their project supported progress by citing the words of radical environmentalist writer Edward Abbey: "Growth for the sake of growth is the ideology of the cancer cell."¹³⁰⁸

San Carlos Apache Sandra Rambler, a newspaper editor, was successful at getting variations of her opinion columns about the Vatican published in a number of local

¹³⁰⁵ M. D. Moreno to Ernest Victor, letter, Sep 1992; Giovanni B. A. M. Panza, "The Impaling of Apache Holy Ground: No Conflict Resolution on Mt. Graham" (master's thesis, Prescott College, Arizona, 1997), 22.

¹³⁰⁶ Genrich, "Mt. Graham: Holy war for the Arizona mountaintop"; Keith H. Basso, affidavit, *Apache Survival Coalition v. United States of America*, CIV. NO. 91-113550-PHX-WPC, 9 Apr 1992.

¹³⁰⁷ Hansen, "Vatican Telescope raises eyebrows, queries."

¹³⁰⁸ "History has many faces; some carved in mountains," editorial, *National Catholic Reporter* (Kansas City, MO), 18 Jun 1989, 28.

Catholic newspapers throughout the United States. She noted, “We Apaches protested months before Vatican construction crews chain-sawed the trees on top of this sacred mountain. We filed in court before the Vatican poured cement.”¹³⁰⁹ Rambler saw the Vatican’s plans for Mount Graham as a continuation of its colonization of Indigenous communities. Rambler said, “The Vatican continues the destruction of native cultures that Columbus started and this is shocking and unacceptable.”¹³¹⁰ As Rambler noted, “Had we become citizens when our territories were colonized, we would have indeed voted to retain our mountain.”¹³¹¹

According to a statement from Friends of Mt. Graham, “Several prominent Catholics have opposed the project. These include a Priest who is with the Catholic Native American Ministries of Minneapolis, a groups [sic] of Franciscan Friars from the Province of Santa Barbara (which controls the San Carlos Apache Reservation Catholic Churches), an Order of the Sacred Heart within Vatican City, prominent Catholics Martin Sheen and Daniel Berrigan, and others.”¹³¹² In fact, the Franciscan Friars from the Province of Santa Barbara wrote, “We disagree with the Vatican Observatory’s support of this project.”¹³¹³ The Sisters of St. Joseph of Carondelet in St. Paul, Minnesota,

¹³⁰⁹ Sandra Rambler, “Something is Wrong,” *Catholic Telegraph* (Cincinnati), 30 Oct 1992; Sandra Rambler, “Vatican unwelcome on Apache mountain,” *The Catholic Herald: The Newspaper for the Diocese of Colorado Springs*, 4 Nov 1992; Sandra Rambler, letter to editor, *The Inside Passage: Diocese of Juneau*, vol. 23, no. 23, 6 Nov 1992; Sandra Rambler, “On Mt. Graham,” *Arkansas Catholic* (Little Rock), 20 Nov 1992.

¹³¹⁰ Sandra Rambler, “Church slur,” letter to editor, *Arizona Daily Star* (Tucson), 22 Jul 1992; Sandra Rambler, “Vatican should not dictate Native American religion,” letter to editor, *The Arizona Republic* (Phoenix), 22 Jul 1992; Sandra Rambler, “One religion should not pass judgment on another,” letter to editor, *The Navajo-Hopi Observer*, 29 Jul 1992; Sandra Rambler, “One religion invalidating another,” letter to editor, *Tucson Citizen*, 1 Aug 1992. See a similar letter from Rambler: Sandra Rambler, “Refreshing Breeze,” letter to editor, *The Phoenix Gazette*, 25 Jul 1992.

¹³¹¹ Sandra Rambler, “Spiritual forms of life have existed on top of Mount Graham for centuries,” *San Carlos Apache Moccasin* (Globe, AZ), 14 Feb 1995.

¹³¹² Friends of Mt. Graham, information flyer, “Mt. Graham Update—End of 102nd Congress,” nd.

¹³¹³ Franciscan Friars of the Santa Barbara Province to Congressman Elton Gallegly, letter, 24 Aug 1992. Also see Franciscan Friars of the Santa Barbara Province to Bishop Manuel Moreno, letter, 24 Aug 1992. See letters that the Franciscan Friars of the Santa Barbara Province wrote to Congressmen George Miller, Mel Levine, Elton Gallegly, and Robert Lagomarsino, as well as Archbishop Popio Laghi and Manuel Moreno. Keith Warner to Friends of Mt. Graham, letter, 4 Sep 1992. The Franciscan Friars also supported legislation to end telescope construction on Mount Graham.

organized a number of oppositional responses to the Vatican in 1992 and again in 2002.¹³¹⁴

In a lengthy letter, Father Ron Meyer of St. Thomas Aquinas Parish in International Falls, Minnesota, wrote to Cardinal Castillo Lara at the Vatican City-State to voice his concerns regarding the comments of Coyne, especially regarding Catholic versus Indigenous views regarding sacred places. Meyer was upset at the actions of the Jesuit priests, as well as the Vatican's support for the astrophysical development. "[T]hose who have profit, power, position, pleasure, and progress as their private agenda cannot also promote peace, mandate morality or evangelize in a manner faithful to Jesus Christ," wrote Meyer. "Is the Vatican coming across as really Christian in this manner. I think not! Catholic? Not!" As Meyer bluntly stated, "What disturbs me most is the very fact that the Vatican is involved in the first place."¹³¹⁵ Meyer was incredulous: "I fail to see why involvement in an affair of this nature should continue. Does it help spread the Gospel? No. Is it promoting justice? No. Is it cultivating peace? Absolutely not!" Meyer pointed out: "We would certainly not allow someone other than Christian to build over St. Peter's grave (which can't scientifically be 100% proven either!)" As letters like Meyer's show, the Vatican's policies struck a raw nerve within the larger Catholic community.

When the Very Reverend James Parks Morton, Episcopalian dean of Cathedral of St. John the Divine in New York, held a Thanksgiving service for American Indians in November 1992, he stated, "I'm delighted that the religious establishment feels threatened by this, because it means that those who have not had a voice are being heard." He was so displeased with the Vatican's involvement on Mount Graham that he remarked, "God gave us voices and brains.... That they are now being used, rather than being cowed, is cause for rejoicing."¹³¹⁶ Tony Hillerman, a renowned novelist, devout Catholic, and respected writer in many native communities, opposed the Vatican's

¹³¹⁴ See a 1992 letter from the Sisters of St. Joseph of Carondelet in St. Paul, Minnesota, to Pope John Paul II at: www.mountgraham.org/MN/letters/popepaulappeal040692.pdf. See also Bob Witzeman to author, email, 23 Feb 2004; Michael Nixon to Bob Witzeman, email, 24 Feb 2004.

¹³¹⁵ Meyer to Lara; Ron Meyer to *The Circle*, letter, 4 Apr 1992.

¹³¹⁶ Gordy, "Sacred Site Dispute."

involvement in astrophysical development on Mount Graham at the annual meeting of the Catholic Press Association in 1991.¹³¹⁷ The National Council of Churches of Christ in the USA, representing 49 million constituents, sent members of its Racial Justice Working Group to Arizona, issued a resolution opposing the desecration of an American Indian sacred site, and funded a 62-page book titled *Sacred Sites, Sacred Rites*.¹³¹⁸

American Indian groups in Chicago voiced their concerns about the astrophysical development and their support for Apaches during meetings with Italy's President; Italian American groups in Chicago supported their efforts.¹³¹⁹ Opposition came from the Italy's city councils of Florence, Rome, Genoa, Ravenna, Ovada, Rosignano M.mo, San Marcello Pistoiese, the counties of Genoa, Ravenna, and Trento, the Region of Piedmont, the President of the Region of Tuscany, the President of Italy, and other Italian opposition.¹³²⁰ More than 27,000 signatures were collected for petitions to the Pope and the Parliament.¹³²¹ As activist Giovanni Panza stated, activists in Italy respected two "revolutionaries," Che Guevara and the Chiricahua Apache Geronimo, and displayed

¹³¹⁷ "Hillerman defends sacred Apache Mountain," *San Carlos Apache Moccasin* (Globe, AZ), 4 Jun 1991. See also, Felker, "Vatican shows no respect"; Rambler, "Vatican unwelcome on Apache mountain"; Sandra Rambler, "Religious discrimination," letter to editor, *Mesa Tribune*, 12 Sep 1993; Gregory McNamee, "Mountain Under Heavens," *terrain.org: A Journal of the Built and Natural Environments*, no. 8 (Autumn 2000), <http://www.terrain.org/articles/8/mcnamee.htm>.

¹³¹⁸ The Racial Justice Working Group, National Council of Churches, "To Stop the Desecration and Destruction of Dzil Nchaa Si'An (Mt. Graham)," resolution, 27 Mar 1995; National Council of Churches of Christ in the USA, "Press Conference Today: 1PM Eastern Arizona College, Thatcher, AZ in the Aravaipa Room, Activities Center Building," Press Release, 27 Mar 1995; The Racial Justice Working Group, National Council of Churches, "Racial Justice Working Group stands in solidarity with Apache people," *San Carlos Apache Moccasin* (Globe, AZ), 4 Apr 1995; Apaches for Cultural Preservation, "Racial Justice Working Group of the National Council of Churches issues resolution requesting removal of all telescopes from Mt. Graham," *San Carlos Apache Moccasin* (Globe, AZ), 11 Apr 1995; Andrea Lee Smith, *Sacred Sites, Sacred Rites* (American Indian Community House and the National Council of the Churches of Christ in the USA, 1998), 1-62. A Wisconsin-based organization called Honor Our Neighbors' Origins and Rights (HONOR) opposed the telescope development. At least 25 issues of HONOR's newsletter, *HONOR Digest*, discussed Mount Graham in particular. See Daniel Gatewood, "Church Group Opposes Mt. Graham Project," *Honor [Honor Our Neighbors Origins and Rights] Digest*, vol. 6, no. 6, Apr/May 1995, 1-2; Sharon Metz, "More Than A Mountain Top Experience," *HONOR Digest*, vol. 6, no. 6, Apr/May 1995, 2. Many other issues of *HONOR Digest* discussed other sacred sites: <http://www.marquette.edu/library/collections/archives/Mss/HONOR/HONORsc.html>.

¹³¹⁹ See Marla Donato, "Come one, come all to telescope feud," *Chicago Tribune*, 11 Jan 1992, 1; James A. Yellowbank, "Paying Homage," letter to editor, *Chicago Tribune*, 23 Jan 1992, 22; Herguth, "Indians, Italians discover new world of cooperation," 4.

¹³²⁰ For an excellent review of opposition in Italy to the Vatican's telescope project, see Panza, "The Spaghetti Connection" section, in "The Impaling of Apache Holy Ground," 25-26.

¹³²¹ Panza, "The Impaling of Apache Holy Ground," 25.

posters of both of these men on their walls.¹³²² Wrote Panza, “Italians were captivated by the Apaches and responded for their call for justice.”¹³²³ Yet the Vatican proceeded undisturbed in its quest for astronomical excellence and extraterrestrials.

In the case of Mount Graham, Catholic officials rarely supported protestors fighting for social justice. A number of examples were seen during the Vatican’s telescope dedication in September 1993. Although one activist named Lisa Mauchetti, who had secured herself to a road gate with a bicycle U-lock attached to her neck, stated, “I’m representing all good Catholic girls,” the Vatican officials and Catholic representatives were less than charitable to activists opposed to their plans.¹³²⁴ A case in point was Fred Allison, a spokesman for the Tucson Catholic Diocese who reacted bitterly to project opponents. He called the protestors “assholes” and, according to reporter John Dougherty, “began looking for opportunities to have opponents of the project arrested.”¹³²⁵ Allison was successful in getting William “Sky” Crosby arrested for assault after he accidentally bumped into him while running to videotape the timber tripod sit that held up the day’s festivities. Jesuit astronomers and the Catholic diocese in Tucson had long worked with UA and Tucson police to arrest activists.¹³²⁶ According to the Audubon Society, “A member of the Vatican Observatory Foundation present at the chain-sawing” of the tripod tower to the ground “was witnessed calling a Native American protestor ‘slime.’”¹³²⁷ Later on, Geri Kitcheyan, wife of disgraced former tribal chairman Buch Kitcheyan, remarked to Coyne, “I feel sorry for the protestors. They live in the Dark Ages,” to which Coyne agreed, “Yes, they live in the Dark Ages.”¹³²⁸

¹³²² Giovanni Panza to author, personal communications, Apr and Aug 2002.

¹³²³ Panza, “The Impaling of Apache Holy Ground,” 26.

¹³²⁴ Steve Yozwiak, “Protestors stall telescope dedication: Road up Mt. Graham blocked by opponents, debris; 11 are arrested,” *The Arizona Republic* (Phoenix), 19 Sep 1993. See the photograph of police officers removing the U-lock from Lisa Mauchetti.

¹³²⁵ John Dougherty, “Cosmic Events: UofA telescopes produce strange protests and weird official reactions,” *New Times* (Phoenix), 22-26 Sep 1993.

¹³²⁶ Activist Michael Schwartz, for example, was also targeted for arrest on October 11, 1992, by an officer who attempted to infiltrate the Friends of Mt. Graham. See Michael Schwartz to “Friends,” letter, 6 Jun 1993.

¹³²⁷ Editorial, *Audubon*, n.d.

¹³²⁸ Dougherty, “Cosmic Events.”

Longstanding hallmarks of Catholic teaching, including compassion and social justice, seemed lost upon the Vatican supporters of astrophysical development on Mount Graham, but not to those groups that opposed the Vatican's involvement. Groups such as the Washington D.C.-based Catholics for Ethics and Justice planned an "informational picket" at the Vatican Embassy. They passed out flyers that queried, "Why is the Vatican Blessing a Telescope which is Desecrating a Sacred Mountain?"¹³²⁹ Steve Gentry, a spokesperson for the group noted, "The hypocrisy of the Vatican church holding a Mass to bless a telescope that desecrates a Native American sacred site and which destroy part of Mt. Graham's ecosystem is not lost on us. Many, many non-controversial sites exist which could house this tiny telescope. Why does the Vatican Observatory continue this tragedy?"¹³³⁰ Despite opposition from religious leaders, the ceremonies moved ahead.

During the ceremonial gala, Coyne stated, "When I come to a place like this, I always ask myself, 'What are we doing here?'" He was referring to the remoteness of Mount Graham, but his words were indeed ironic and well put to many of the protestors who observed the dedication. While Coyne spoke, "environmental activists, along with a handful of Native Americans that included representatives of the American Indian Movement [AIM] and San Carlos Apaches, began playing drums, singing songs and explaining their opposition to the project." Their actions provided a unique backdrop to the ceremonies. Vernon Foster, director of the Arizona AIM chapter, stated at the ceremony, "The creator doesn't need a peeping Tom like all of you people."¹³³¹ He called the joint UA-Vatican project a "modern day Columbus expedition."¹³³² Despite their best efforts, the protestors could not halt the ceremonies.

Without hesitation or a second thought, during the dedication Coyne brought forward Buck Kitcheyan to offer a dedication. Kitcheyan's federal indictment charging

¹³²⁹ DC Catholics for Ethics and Justice, "Why is the Vatican Blessing a Telescope Which is Desecrating a Sacred Mountain? Join Folks around the World in Protest of this Tragedy. Throw the Vatican Astronomers Off Mt. Graham!" flyer, 19 Sep 1993.

¹³³⁰ Mt. Graham Coalition, "Groups to Protest Vatican Telescope Dedication on Apache Sacred Mountain," Press Release, n.d. [Sep 1993].

¹³³¹ Dougherty, "Cosmic Events."

¹³³² Joseph Barrios, "Protestors delay telescope salute," *Arizona Daily Wildcat* (University of Arizona), 20 Sep 1993.

him with embezzling funds from his tribe had come down one week earlier. This reality, coupled with his conviction a year earlier in Apache Tribal Court on 14 counts of embezzlement, was not lost on the American Indians who looked on.¹³³³ In a letter to the invited chairman and council of the Zuni Tribe, activist Carolina Butler had written that UA and its partners “want to use you. Your presence will provide them historical proof that Indian people in leadership positions approve of their disregard, disrespect and contempt for tribal resolutions and for Indians’ traditional beliefs.” She stated that, at the time of the dedication, the San Carlos Apache Tribe was on record having opposed the astrophysical development before any tree was cut on Mount Graham and that “Traditional Apache people [were] still in court trying to stop the desecration of their sacred ground.”¹³³⁴ Other San Carlos Apaches were quick to point out the apparent inconsistencies within the Catholic Church. Just one month before the dedication of the Vatican telescope, the Pope told Indians in Mexico, “Unfortunately it must be noted that the richness of your culture has not been duly appreciated. Neither have your rights been respected.”¹³³⁵

Conclusion

Jesuits are known as teachers. But many activists questioned what the Vatican and its Jesuit scientists taught American Indians and the greater global community by their lies (The Vatican still refers to Mount Graham as “probably the best astronomical site in the continental United States.”¹³³⁶); their distortions and misrepresentations through involvement in the lawsuits against Apaches and environmentalists; their unwillingness to meet with anyone who opposed their project; their denial of evidence regarding the sacredness of Mount Graham and Apache claims to the mountain; and the deception and colonialism that their continued participation in the telescope project represents. The Vatican made comments and actions despite tribal opposition. Apaches never offered their consent, nor was that consent ever sought by Vatican priests and their allies. Only

¹³³³ Dougherty, “Cosmic Events.”

¹³³⁴ Carolina Butler to Honorable Chairman and Tribal Council, Zuni Tribe, letter, 15 Sep 1993.

¹³³⁵ Rambler, “Religious discrimination”; Kipp, “Romes Blind Eye.”

¹³³⁶ http://www.vaticanstate.va/EN/Other_Institutions/The_Vatican_Observatory.htm. Accessed 15 Mar 2009.

certain Apaches went along for the ride. Construction of the VATT began after SCAT resolutions, Basso provided copies of Goodwin's notes on religion, and UA and Vatican officials were made aware of the Apache resistance to the project. As the Church did with early astronomers like Galileo, it tried to silence the voices of the Apaches, environmentalists, and their allies. If Apaches and environmentalists have to wait as long as Galileo—or even Darwin—to receive anything like an apology from the Vatican or its Jesuit astronomers, the Mount Graham Red Squirrel will have perished, along with a great amount of Apache knowledge of the sacred.¹³³⁷

Although at first glance the evidence in this chapter points toward the efforts and actions of only a few Jesuit priests, the reality is that Catholic Church officials in Vatican City endorsed and sponsored an overarching policy of imperialism regarding Mount Graham and Apaches. In fact, the role of the Vatican on Mount Graham displays a number of major themes: the Catholic Church has the search for extraterrestrial life as the reason why it is involved with astronomy; the Church's longstanding and continued involvement with imperialism (using violence against native peoples in terms of rhetoric and action, as well as divide-and-conquer strategies); Church hypocrisy as it makes positive statements yet behaves poorly; Church lies about the scientific value of the Mount Graham site, as well as telescope construction timetables; the Church's lack of understanding by demanding proof from Apaches of the mountain's sacredness and placing emphasis on the buildings and structures required to make a site holy; and the Church's racist tone that is dismissive, rude, and paternalistic. Overarching all of these themes is resistance to Catholic imperialism from Indians, anthropologists, ordinary Catholics, and activists.

Mount Graham aligns perfectly and sadly with the long history of colonialism, the oppression of the church, and the long-standing legacy of cloistered priests, especially in

¹³³⁷ Bess Twiston Davies, "Vatican Celebrates Darwin," *Times Online* (London), 23 May 2008, <http://www.timesonline.co.uk/tol/comment/faith/article3993823.ece>, accessed 1 Apr 2009; Jerry Adler, "Charles Darwin: Evolution of a Scientist," *Newsweek*, 28 Nov 2005, 50-58, esp. 52; Richard Owen, "Stephen Hawking to Address Vatican conference on evolution," *Times Online* (London), 31 Oct 2008, <http://www.timesonline.co.uk/tol/coment/faith/article5054745.ece>. Accessed 1 Apr 2009.

the Southwest.¹³³⁸ Mount Graham is a combination of the ignorance, arrogance, and hubris that has resulted in molestation cover-ups, bankrupt dioceses (the diocese of Tucson, at the center of the struggle for Mount Graham, filed for bankruptcy in 2004), and declining enrollment in the Roman Catholic Church nearly everywhere globally.¹³³⁹ Yet while the Catholic dioceses around the country announced their bankruptcies, the Vatican continued to finance and support its astronomers and UA's work. In fact, when the Pope apologized in March 2000 for the actions of Catholic priests, in a document titled "Memory and Reconciliation: The Church and the Faults of the Past," an Apache grandmother asked, "What good is a European apology while their desecrating and suppressing of American Indian continues?"¹³⁴⁰ By sequestering themselves on the mountain and maintaining "secrecy," Jesuit astronomers have furthered the exploration of the universe to the detriment of their questioning, challenging, and changing their views of Indigenous Peoples on earth.¹³⁴¹ Money that the Vatican could have spent on projects that help and serve others or look at their works to find the answers to life's persistent questions about humans, animals, the environment, and the earth, was instead dedicated to outer space.¹³⁴²

¹³³⁸ See H. Henrietta Stockel, *On The Bloody Road to Jesus: Christianity and the Chiricahua Apaches* (Albuquerque: University of New Mexico Press, 2004); H. Henrietta Stockel, *Salvation Through Slavery: Chiricahua Apaches and Priests on the Spanish Colonial Frontier* (Albuquerque: University of New Mexico Press, 2008); and H. Henrietta Stockel, "Rocks, Waters, Earth: Chiricahua Apache Spiritual Geography," *Journal of the West*, vol. 46, no. 4 (Fall 2007): 18-27. See also, George E. Tinker, *Missionary Conquest: The Gospel and Native American Cultural Genocide* (Minneapolis: Augsburg Fortress, 1993).

¹³³⁹ Catholic News Service, "Facing Sex Abuse Suits, Tucson Diocese Seeks Bankruptcy Protection," 21 September 2004, <http://www.catholicnews.com/data/stories/cns/0405160.htm>, Accessed 1 Apr 2009; AOLNews, "Wisconsin Church Abuse Victim: 'Never Give Up,'" 25 Mar 2010. For a compilation of articles and information on Catholic abuse, bankruptcies, and other problems, see: <http://www.bishop-accountability.org>. See "Sincere act of contrition: After heavy criticism, U.S. Catholic bishops have begun to respond to the problem of priests who prey on children," editorial, *The Phoenix Gazette*, 25 Jun 1993; forthcoming work by Leon, *U.S. Catholics and the Eugenics Movement*.

¹³⁴⁰ Audrey Johnson, "Pope should take next step," letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 3 May 2000.

¹³⁴¹ Bill Boadway, "Keeping an Eye on the Heavens: Vatican's Chief Astronomer, a Priest, Sees Room for Religion and Science," *The Washington Post*, 18 May 2002, B8.

¹³⁴² Tom Hogan, "Is It Too Late to Save The Catholic Church?," *Newsweek*, 30 Jun 2003.

The example of the Vatican's role in the Mount Graham telescope project challenges the persistent debates about science versus religion.¹³⁴³ As the Vatican has acknowledged, especially during the 2009 conferences and celebrations of the Year of Astronomy, the telescope, the Vatican's role in science and religion debates, and the 150th anniversary of Darwin's publication of *The Origin of Species*, the struggle for Mount Graham is not about science versus religion.¹³⁴⁴ Even Coyne has stated as much, acted as a faculty advisor to Arizona's program titled "Astrobiology & the Sacred: Implications of Life Beyond Earth," and been honored for such insights as various accolades can attest.¹³⁴⁵ Adam Frank, an astronomer at the University of Rochester, has stated, "many of the men and women who were the founders of science in its current form ... were deeply religious or deeply spiritual."¹³⁴⁶ Such insights point to the fact that it is difficult to break longstanding beliefs about the separation of science and religion. Despite the lack of conflict regarding science versus religion in this fight, Western science and discovery were clearly given priority. As one activist who wrote to UA

¹³⁴³ Jim Erickson, "Astronomer-priest contends science, religion don't clash," *The Arizona Daily Star* (Tucson), 22 Nov 1992; Hitt, "Would You Baptize and Extraterrestrial?"; Geoff Ziezulewicz, "Vatican team sees a creator in the creation," Mount Graham Special Report, *The Minnesota Daily* (University of Minnesota), 22 Apr 2004, 11A.

¹³⁴⁴ International Year of Astronomy, <http://www.astronomy2009.org>. See Johnson, "Vatican's Celestial Eye"; Colette Bancroft, "Tucson Observatories Transform the Heavens into Stars," *St. Petersburg Times*, 26 Jul 2009, <http://www.tampabay.com/features/travel/article1021090.ece>.

¹³⁴⁵ Spurgaitis, "Infinite Sanctuary"; Bronislaus B. Kush, "Holy Cross honors priest astronomer for life's work; Jesuit says religion, science complement each other," *Telegram & Gazette* (Worcester, MA), 25 May 2009; Lori Stiles, News Release, "Leading Astronomy Organization Honors Vatican Astronomer Active With UA," UA News (University of Arizona), 26 Feb 2009; Lori Stiles, News Release, "Top Vatican Official Visits Vatican Astronomers at UA," *UA News* (University of Arizona), 27 Feb 2009; Broadway, "Keeping an Eye on the Heavens," B9, B8; Julie Cart, "Pope's stargazers familiar with science, spirituality," *Los Angeles Times*, 1 Aug 1998.

For recent comments about the "science versus religion" debate, see Ian Tattersall, "Science Versus Religion? No Contest," *Natural History* (Apr 2002): 100. Also see Bindell, "Vatican paper may give all reason to worry about sacred sites," 4; Blake Morlock, "God, the Universe, and You," *Tucson Citizen*, 17 Apr 2002; Morlock, "Impey"; and <http://scienceandreligion.arizona.edu/>; Hebel, "On a Mountaintop, a Fight Between Science and Religion," A21-22; E. O. Wilson, *The Creation: An Appeal to Save Life on Earth* (New York: W. W. Norton & Company, 2006).

¹³⁴⁶ Ron Netsky, "Beyond science vs. religion," *City* (Rochester, NY), 7-13 Jan 2009, 8; See Adam Frank, *The Constant Fire: Beyond the Science vs. Religion Debate* (Berkeley: University of California Press, 2009).

President Manuel Pacheco stated, “Issues of development and scientific discovery were obviously regarded as more important.”¹³⁴⁷

Columnist Scotta noted that “A lack of respect for the Native American viewpoint, based on a very different relationship with time, space and the physical world, has perpetuated the philosophy that Native American priorities are somehow less important than those of non-Indians.” According to Scotta, the “persistence” of a lack of respect “renders modern Indian nations virtually powerless when non-Indians begin to covet what is sacred, be it land or resources.” Stated Scotta, “In the case of Mount Graham, unless the Apache can assert their claims under a non-Indian definition of sacred, they will be dismissed” by the court system, Vatican astronomers, and university officials. “The translation of an Apache concept of ‘sacred’ first into English, then into a specific legal, political, social or scientific jargon understandable to non-Indians puts the Apache at an inherent disadvantage,” said Scotta. Most importantly, “An Apache definition, which comes from an Apache view of the world, is no less valid just because it is difficult for non-Indians to grasp. To dismiss that definition on those grounds is opting for ignorance.”¹³⁴⁸ Differing worldviews are at the heart of many Indigenous land struggles. The struggle for Mount Graham is no different.

Indeed, in the struggle for Mount Graham, it appears that Apaches and environmentalists are up against powerful institutions and people disconnected from feelings. In the effort to protect Mount Graham, Apaches and their environmentalist allies have tended to have a different sense of aesthetics than Jesuit and non-religious astronomers. According to noted geographer Yi-Fu Tuan, “The root meaning of aesthetics is ‘feeling.’ To feel is to come to life—to be alive. Its opposite is anesthesia, the deadening of senses. Busy men and women” within the Vatican and UA, as well as elsewhere, “tend to regard the aesthetic (‘beauty and all that’) as marginal and superficial.” Tuan states, “They see it as a hobby that one might take up after money-making work.” Mainstream religious and academic establishments look down on Apache people who know that Mount Graham is sacred and environmentalists who seek to

¹³⁴⁷ Lammers to Pacheco, 1.

¹³⁴⁸ Scotta, “What is sacred to Apache must be defined by Apache.”

protect Mount Graham for all future plants and animals. Apaches must protect the environment—not only for children but also so the environment and especially Mount Graham can do its best work providing safety, shelter, and health and wellness to Apaches and “nature,” without human influence. The efforts of Apaches and environmentalists are to eradicate anthropocentrism and embrace biocentrism. As Tuan puts it, “there is nothing superficial about coming to life, drawn by the beauties of the world... Human culture—everything from the well-turned phrase to great systems of thought, from cosmeticized hair to great works of art—is a striving toward a keener, more shapely, more comprehensive and comprehensible life.”¹³⁴⁹

Western Apaches, environmentalists, university officials, astronomers, and Catholics approach Mount Graham through different kinds of ontological perspectives. Vatican astronomers who are partners in the telescope project are using the mountain to search for the answers to theological questions. Astronomers at various universities say that the mountain is an ideal location for astronomy, and argue that they can grasp an understanding of the universe that they cannot get elsewhere. Officials at various universities who work closely with the astronomers are also stakeholders in this struggle. Environmentalists appreciate its ecosystem that includes five different life zones and eighteen endemic species of plants and animals, but they bemoan what they see as unrestrained, technology-intense uses of the area. Apaches also recognize the mountain’s unique ecological characteristics. Above all, for Apaches, Mount Graham is the only place where they collect certain plant and animal resources for use in ceremonials, learn how to live, and go to understand their cosmology—all of which, as pointed out by anthropologist Basso and others, are central to their culture and sovereignty.¹³⁵⁰

“From our perspective, this is not a matter of religion against science. Apache ways of knowing the world also include processes of empirical observation that stand at

¹³⁴⁹ “Minnesota Off Mount Graham: Alliance and Solidarity in Native and Environmental Struggles,” ReVisioning: Building Community for a Sustainable Future Conference, St. Paul, MN, 29 Apr 2002.

¹³⁵⁰ See Keith Hamilton Basso, “Declaration of Keith Basso in Support of a Preliminary Injunction on 9 April 1992” for *Apache Survival Coalition v. United States of America* 21 F3d 895 (9th Cir 1994) (Basso’s comments are not contained in the appellate reporter); Keith H. Basso, *Wisdom Sits in Places: Landscape and Language Among the Western Apache* (Albuquerque: University of New Mexico Press, 1996).

the foundation of Western science. The difference as in all other comparisons of science and religion is that the two ultimately rest on fundamentally different ontological premises,” wrote 20 members of the Department of American Indian Studies at the University of Minnesota in 2003. The authors continued, “No one, we hope, at this university would argue that any scientist on this campus cannot have a religion, nor would we hope that any one would advance the proposition that the Apache or for that matter any other American Indian people who practice their traditional religion, cannot be scientists. This is not the issue, and quite frankly, we find it objectionable when we hear that some of our colleagues are casting the argument in this light.”¹³⁵¹ Faculty, activists, and scholars on both sides missed the mark when they framed the struggle for Mount Graham as a matter of science against religion.

Telescope supporters state that there is no documented relationship between Apaches and Mount Graham. They demand proof. Although there is a great amount of “proof”—burial sites, springs, places for ceremonials, locations for gathering acorns, etc.—the only proof—indeed, perhaps the only argument that Apaches need and make—is that Mount Graham is sacred *now*. And there is plenty of support for this assertion. If Christianity can go through revivals and periods of resurgence, then certainly Native American religion and spirituality, as well as Apache connections to sacred landscapes, should be afforded the same level of respect; American Indian religion and sense of the sacred should in fact be allowed to grow, flourish, and when necessary go through a phase of revitalization. As many Apaches see it, the telescopes, like white European Americans and the United States government, are an impermanent blot on the fabric of the earth. Many Apaches and some environmentalists recognize that the mountain in all of its forms will outlive both.

According to Carolina Butler, an activist who helped in 1981 defeat the proposed Orme Dam that would have flooded the Fort McDowell Indian Community, home of one of the world’s smallest tribe, the Yavapais, “The character of a society is determined by

¹³⁵¹ Department of American Indian Studies, University of Minnesota, to Members of the Faculty Senate, letter, 20 Oct 2003. See Joel Helfrich, “Telescope project pits one U arm against another,” *The Minnesota Daily* (University of Minnesota), 21 Oct 2003.

how well it transmits values from generation to generation and it should bring joy to the church that the Apaches are fighting to preserve their Apache traditions, for their own well-being.”¹³⁵² Given the strength of a Jesuit education globally, the deep traditions within the church of social activism, and its occasional comments about Indigenous peoples and the environment, it seems reasonable to assume that the Vatican Observatory astronomers could have taken, as one reporter said, the “moral high ground”—a place that the “Apaches have always held.... [and] still do.”¹³⁵³

Environmental writer Gregory McNamee once wrote that “The tale of Mount Graham is an old story, repeated many times and many places.” McNamee provided the example of the third-century *Aesopica*, a fable that mirrors the struggle for Mount Graham and which could “have been set in southern Arizona at the dawn of the new millennium”:

An astronomer used to wander outside each night to look at the stars. One evening, as he walked through town staring at the sky, he fell into a deep well. He cried for help until a neighbor arrived and called down to him. Learning what had happened, the neighbor said, “Why pray into the heavens when you can’t see what’s right here on Earth?”¹³⁵⁴

¹³⁵² Butler, “Sacred Apache mountain deserves Vatican’s respect.” See Mike Tulumello, “‘Little’ folks win Orne fight,” *Mesa Tribune* (Mesa, AZ), 11 Oct 1981.

¹³⁵³ Genrich, “Mt. Graham: Holy war for the Arizona mountaintop.”

¹³⁵⁴ McNamee, “Mountain Under Heavens.”

The (academic world) is not a comfortable class that welcomes the message that Indian cultures have intellect.¹³⁵⁵

—John Mohawk

Everything secret degenerates ... nothing is safe that does not show how it can bear discussion and publicity.¹³⁵⁶

—Lord Acton

¹³⁵⁵ Quoted in Diana Louis Carter, “Native American scholars at point of tension,” *Democrat & Chronicle* (Rochester, NY), 21 Nov 2004, 3B.

¹³⁵⁶ Quoted in Peter Singer and Jim Mason, *The Way We Eat: Why Our Food Choices Matter* (Emmaus, PA: Rodale, 2006), 12.

TWINKLE, TWINKLE, NORTH STAR: TELESCOPIC VISION ECLIPSES TRUTH
AT THE UNIVERSITY OF MINNESOTA¹³⁵⁷

Minnesota, Hail to thee!
Hail to thee, our college dear!
Thy light shall ever be
A beacon bright and clear.
Thy sons and daughters true
Will proclaim thee near and far.
They will guard thy fame
And adore thy name;
Thou shalt be their Northern Star
—“Hail! Minnesota,”
University of Minnesota alma mater¹³⁵⁸

Earth: The Spinning Top

The North Star is a metaphor that guides people at the University of Minnesota (UMN) in particular, in the state of Minnesota (the “North Star State” is Minnesota’s nickname) in general, and at Minnesota-based companies such as Polaris Industries, the makers of snowmobiles, and the Minneapolis *Star Tribune*, Minnesota’s largest newspaper. Perhaps more striking than the role that the North Star plays within the state is the fact that this star constantly changes as the earth rotates. The North Star, also called Polaris or the Pole Star, is the star that the earth’s axis currently points toward in the northern sky. As a star that appears motionless, it has a long history of providing direction to sailors, slaves, and American Indians, including Apaches (who call it *zisl so se do nag a hi*), who followed it as a guide point.¹³⁵⁹ The North Star is also the great antiracist symbol in the United States, as used by Frederick Douglass in his abolitionist newspaper of the same name. Currently “the Earth’s axis points to within one degree of Polaris, the brightest star in the constellation Ursa Minor (also called the Little Dipper or Little Bear).” But since the earth’s axis changes positions over time, the location and name of the North Star changes.

¹³⁵⁷ I include this chapter because I was closely involved with and have access to the sources and the story that is depicted herein, as I was a graduate student at the University of Minnesota from 1999 until 2010. I especially thank Jason Eden, Pat McNamara, Jim Rock, and David Roediger for their help with this chapter.

¹³⁵⁸ See *Commencement Program*, College of Continuing Education, University of Minnesota, 8 May 2004, 7.

¹³⁵⁹ Grenville Goodwin, “Section 14: Palmer Valor,” in Morris Edward Opler Papers, Carl Koch Library, Cornell University, Box 45, Folder 22.

At various times in history, the North Star has been Thuban (the brightest star in the constellation Draco), Vega (the brightest star in the constellation Lyra), Alpha Cephei (the brightest star in the constellation Cepheus), and Polaris.¹³⁶⁰ Just as this star is a little off true North, the decision making processes of UMN administrators and astronomers were off the mark and misguided with regards to the telescopes on Mount Graham.

UMN astronomers and officials did not take into account the global perspective and, in the words of Jim Rock, a Dakota Indian who for years taught science camps at UMN, Minnesota has participated in a “drift from what is most important over time.”¹³⁶¹ Few people understand that the North Star is a false star, since its position moves and that approximately every 26,000 years the earth’s axis makes a complete rotation. In fact,

Five thousand years ago, Thuban was the North Star. Five thousand years from now, the North Star will be Alpha Cephei. Seven thousand years after that, it will be Vega. Nine thousand years after that, Thuban will be the North Star again. At these dates, the various stars will be at the closest to absolute north. For some time before, the relevant star will be approaching due north and it will be receding for some time after the time listed. In these interim times, the North Star is whichever star is closest to north.¹³⁶²

Perhaps the only groups to understand and have seen this 26,000 year procession are Indigenous Peoples who have stayed in one place for a long time and “seen stars come and go.” That knowledge is well-documented in the Americas. In fact, Indigenous Peoples had amazing scientific knowledge because they lived in one place long enough to make observations, calculations, and predictions about astronomy, cycles, and the stars above.¹³⁶³

¹³⁶⁰ http://www.essortment.com/all/northstarastro_rmdz.htm

¹³⁶¹ Jim Rock to author, personal communication, 25 Mar 2010.

¹³⁶² http://www.essortment.com/all/northstarastro_rmdz.htm; Jim Rock, conversations with the author, 2004-2005; Surya Sukumar to author, email, 3 Sep 2004.

¹³⁶³ Rock to author, 25 Mar 2010; “12/12/12,” *Beliefwatch*, *Newsweek*, 25 Sep 2006, 10. The number of scholarly and popular works that describe archaeoastronomy, native astrology, and star knowledge is large and growing. Regarding star knowledge and astronomy of two separate Apache groups, see Claire R. Farrer, *Living Life’s Circle: Mescalero Apache Cosmology* (1991; Albuquerque: University of New Mexico, 1994) and Kay Parker Schweinfurth, *Prayer on Top of the World: The Spiritual Universe of the Plains Apaches* (Boulder: University Press of Colorado, 2002). For a small collection of books on these topics, see also Anthony N. Aveni, ed., *Native American Astronomy* (Austin: University of Texas Press, 1977); Ray A. Williamson, ed., *Archaeoastronomy in the Americas* Ballena Press Anthropological Papers, no. 22 (Los Altos, CA: Ballena Press, 1981); Von Del Chamberlain, *When Stars Came Down to*

With a great amount of rigidity and a no compromise attitude, administrators, astronomers, and their allies at UMN acted like and followed a fixed point, in spite of the fact that the north star point has shifted. On October 11, 2002, in spite of tearful opposition by Western Apache representatives and their allies, UMN, at the behest of the astronomy department, joined the astrophysical development project on Mount Graham. The example of UMN shows that the struggle for Mount Graham is not just about the University of Arizona (UA) versus Apaches. UMN's decision is a recent manifestation of colonialism as it affects American Indians in the United States. Since at least 1871, when President Ulysses S. Grant established an Apache Reservation in Arizona by executive order, various institutions have imposed their will upon the Apache concerning this place of cosmological significance.¹³⁶⁴ UMN, as well as the University of Virginia (UVA), is the latest to do so.

Ironically, given the original name for the large binocular telescope and the annual protests in Arizona against Christopher Columbus, it was on Columbus Day 2002, that UMN joined the telescope project. Just days earlier, Amnesty International published its study regarding the treatment of native peoples in the Americas. Titled "America's Indigenous Peoples: Second Class Citizens in the Lands of Their Ancestors," Amnesty

Earth: Cosmology of the Skidi Pawnee Indians of North America (Los Altos, CA: Ballena Press, 1982); Ray A. Williamson, *Living the Sky: The Cosmos of the American Indian* (Norman: University of Oklahoma Press, 1987); J. McKim Malville and Claudia Putnam, *Prehistoric Astronomy of the Southwest* (Boulder: Johnson Books, 1989); Ray A. Williamson and Claire R. Farrer, eds., *Earth & Sky: Visions of the Cosmos in Native American Folklore* (Albuquerque: University of New Mexico Press, 1992); Ron McCoy, *Archaeoastronomy: Skywatching in the Native American Southwest*, in *Plateau* (Flagstaff, AZ: Museum of Northern Arizona), vol. 63, no. 2, 1992; Dorcas Miller, *Stars of the First People: Native American Star Myths and Constellations* (Boulder: Pruett Publishing Company, 1997); David H. Kelley and Eugene F. Milone, *Exploring Ancient Skies: An Encyclopedic Survey of Archaeoastronomy* (The Netherlands: Springer, 2004); Ray A. Williamson, *They Dance in the Sky: Native American Star Myths* (New York: Sandpiper, 2007); as well as numerous other books written and edited by Aveni and Williamson.

¹³⁶⁴ See H. M. Robert, letter, 31 Jan 1870, describing the proposed White Mountain Reservation boundary, as well as the map that accompanied Robert's letter; Vincent Colyer, letter, 5 Sep 1871, selecting Robert's White Mountain Reservation; Vincent Colyer to Lieut. Royal E. Whitman, letter, 18 Sep 1871, creating the Camp Grant Reserve; Vincent Colyer to Hon. C. Delano, letter, 7 Nov 1871, selecting various Apache Indian reserves; C. Delano, Department of the Interior, to U.S. Grant, letter, 7 Nov 1871, recommending the White Mountain Reservation to President Grant; U.S. Grant, Executive Order, 9 Nov 1871, establishing the White Mountain Reservation; W. T. Sherman, letter, 9 Nov 1871, effectuating the 9 Nov 1871 Executive Order and stating that if Apaches left the reservation boundaries they would be considered "hostile."

International declared, “Basic rights of indigenous communities, including the right to land and to cultural identity . . . are systematically violated in a variety of countries.”¹³⁶⁵ Although not cited as an example in this study, the United Nations had previously pointed to the case of Mount Graham as an egregious example of human rights violations.¹³⁶⁶ Weeks before the UMN decision, a federal judge held a third Cabinet-level official in contempt for not complying with court orders to correct the mismanagement of billions of dollars in royalties from American Indian lands.¹³⁶⁷ “Interior Department has time and again demonstrated that it is a dinosaur—the morally and culturally oblivious hand-me-down of a disgracefully racist and imperialist government that should have been buried a century ago, the last pathetic outpost of the indifference and Anglocentrism we

¹³⁶⁵ Amnesty International, Press Release, “Americas: Indigenous Peoples—Second-Class citizens in the lands of their ancestors,” <http://web.amnesty.org/library/print/ENGAMR010062002>, accessed 16 Nov 2003, or <http://asiapacific.amnesty.org/library/Index/ENGAMR010062002?open&of=ENG-399>.

¹³⁶⁶ Mr. Abdelfattah Amor, “Special Rapporteur Report: Religious Intolerance in the United States” [Full text at *United Nations High Commissioner for Human Rights* (Follow links to Commission on Human Rights Reports, 1999: United Nations Doc. #E/CN.4/1999/58/Add.1, 9 Dec 1998)]. See “Section II.C. Situation for Native Americans,” which is also found at: <http://www.nativeweb.org/pages/legal/intolerance.html>, accessed 18 April 2009. Also see, Associated Press, “Report calls for protection of sacred sites,” *News From Indian Country* (Rapid City, SD), 14-21 Jun 1999; “Big Mountain elders address UN rep,” n.d., n.p.; Mark Shaffer, “Envoy hears from tribes on persecution,” *The Arizona Republic* (Phoenix), 5 Feb 1998; Associated Press, “U.S. must do more to protect Indian culture, U.N. visitor says,” *The Arizona Republic* (Phoenix), 18 Mar 1999, A10; Associated Press, “U.N.: Protect Indian Sites in U.S.,” 17 Mar 1999; Daniel Zapata, “Statement at Working Group on Draft Declaration on behalf of Mount Graham,” Working Group on Indigenous Peoples, United Nations, 4 Dec 1998, www.netwarriors.info/graham.html, accessed 21 Feb 2004; Ola Cassadore Davis, “Statement and Petition to the United Nations To Protect the Indian Sacred Site, Dzil Nchaa Si An (Mount Graham)” (read by Daniel Zapata, Peabody Watch Arizona, 29 Jul 1999), Agenda Item 5: Principle Theme: Indigenous Peoples and their Relationship to Land, Sub-Commission on Prevention of Discrimination and Protection of Minorities, Working Group on Indigenous Peoples, United Nations Commission on Human Rights, Seventeenth Session, 26-30 Jul 1999; Uncle Jake, “Statements from Dineh and Hopi Resisters,” *Synthesis/Regeneration*, vol. 26 (Fall 2001), www.greens.org/s-r/26/26-05.html, accessed 21 Feb 2004; Kee Watchman, International Treaty Council, address to the United Nations Human Rights Commission Fifty-seventh Session, 19 Mar-27 Apr 2001, Agenda Item 11 (e) Religious Intolerance; Giancarlo Barbadoro, declaration, Working Group on Indigenous Populations, United National Commission for Human Rights, 22-26 Jul 2002, www.eco-spirituality.org/eonu-gb.htm, accessed 21 Feb 2004. See also, U.S. Human Rights Network CERD Working Group on Indigenous Peoples, “Response to the Periodic Report of the United States to the United Nations Committee on the Elimination of Racial Discrimination,” Feb 2008, www.ushrnetwork.org/files/ushrn/images/linkfiles/CERD/5_Indigenous%20Peoples.pdf, accessed 18 Apr 2009. See also, Giancarlo Baradoro and Rosalba Nattero, *Natural Peoples and Ecospirituality: From the Native Americans’ Mount Graham Case to the Historical Reality of the Native Europeans, A Peace Proposal for All Humanity*, 3rd ed. (Torino, Italy: Triskel, 2004), 87.

¹³⁶⁷ Sheryl McCarthy, “U.S.’s Rape of the Indians Continues Still Today,” *Newsday.com*, 19 Sep 2002, www.newsday.com/news/opinion/ny-vpmcc192930879sep19,0,7925192.column, accessed 26 Sep 2002.

thought we had left behind,” stated U.S. District Judge Royce Lamberth.¹³⁶⁸ As a result of the actions of administrators and scientists, UMN—despite intense lobbying efforts, protests, and appeals for ethical behavior—consciously joined a colonial legacy that marginalized Indigenous peoples, made claims and asserted control over their land, willfully exploited unequal power relations, and added to ongoing struggles within Indian America.¹³⁶⁹

UMN’s role in the telescope project adds to the general history of Mount Graham and provides a case study of institutional racism and the privileging of science within an academic setting.¹³⁷⁰ Indeed, the problem is institutional racism, at both the U.S. government level and the university level. At UMN, many administrators and faculty stood behind the university’s “land grant mission,” which ultimately exudes a legacy of Jim Crow policies in large state universities and historically white academic institutions. The strategy to stand behind its land grant status is a theme repeated at all land grant colleges and universities, especially those like Minnesota, Arizona, and Ohio State that are or have been invested in the astrophysical development on Mount Graham.¹³⁷¹ In the case of UMN, the nineteenth-century founder of the university, John Sargent Pillsbury, used his political influence to obtain a Morrill Land Grant from the federal government, thus becoming the recipient of land to use or sell to provide education to students.¹³⁷² As can be expected, academic buildings such as Pillsbury Hall and a Morrill Hall were some of the earliest structures on UMN’s Minneapolis campus. As a public university, UMN should respond to citizen input; what this case shows is that it was never receptive to protests nor public comments.

¹³⁶⁸ “Justice Dept. wants judge off Indian case,” *USA Today*, 12 Apr 2006, 9A.

¹³⁶⁹ See Emily Greenwald, *Reconfiguring the Reservation: The Nez Perce, Jicarilla Apaches, and the Dawes Act* (Albuquerque: University of New Mexico Press, 2002).

¹³⁷⁰ See Mark Soderstrom, “Weeds in Linnaeus’s Garden: Science and Segregation, Eugenics, and the Rhetoric of Racism at the University of Minnesota and the Big Ten, 1900-45” (PhD diss., University of Minnesota, 2004).

¹³⁷¹ David Roediger, “What’s Wrong with These Pictures? Race, Narratives of Admission, and the Liberal Self-Representations of Historically White Colleges and Universities,” *Washington University Journal of Law & Policy*, vol. 18 (2005), 203-222; David Roediger, “(Not) Writing about Chief Illiniwek: Academic Knowledge and Anti-Racist Struggle,” *Studies in Symbolic Interaction* (forthcoming).

¹³⁷² Morrill Act of 1862 (7 U.S.C. 301).

When Congress passed the Morrill Act, not all Indian tribes in the Upper Midwest had been subdued and placed on reservations. The year 1862 was witness to four months of warfare between white settlers and Dakota Indians in the Minnesota River Valley that culminated in the largest mass-execution in U.S. history. On December 26, 1862, in Mankato, Minnesota, 38 Dakota Indians were hanged by the federal government after which a local physician named William Worrall Mayo, who eventually founded the private medical practice called Mayo Clinic, took one of the bodies for medical research.¹³⁷³ The Dakota people had long since been removed to reservations in Nebraska, South Dakota, North Dakota, Montana, and elsewhere by the time that UMN enrolled its first student. Minnesota, like other land grant universities, was a white supremacist university, a historically white Jim Crow institution that fits within the timeline of colonial endeavors in the West.¹³⁷⁴

UMN, like other land grant institutions, has been engaged in appropriation and colonialism since its establishment in the mid-1800s.¹³⁷⁵ Its involvement with the astrophysical development of Mount Graham is a continuation of that colonial legacy, as well as a historical resemblance to the legacies of UA and Vatican. At the University of Illinois, another land grant institution that has problems with native communities stemming in part from its longstanding support of the racist, fictitious mascot Chief Illiniwek, historian David Roediger pointed out that when he taught at UMN, the faculty and administrators would hide behind the institution's "land grant status." As he stated, "behind every good thing that we wanted to do [with regards to the American Indian Studies program] faculty would justify by saying, 'The University of Minnesota needs to live up to its land grant mission.'" He always wondered, "whose land was actually being granted in these land grant universities?" Furthermore, queried Roediger, "What actually is the role of native dispossession in public higher education in the United States?" That

¹³⁷³ Helen Clapesattle, *The Doctors Mayo* (1941; New York: Pocket Books, 1980), 77-78, 167.

¹³⁷⁴ Roediger, "Rountable: Disempowering Racial Oppression"; Roediger, "What's Wrong with These Pictures?"

¹³⁷⁵ To see how the land grant process worked, see books by historian Peter Wallenstein. Among others, see Peter Wallenstein, *Virginia Tech, Land Grant University, 1872-1997: History of a School, a State, a Nation* (Blacksburg, VA: Pocahontas Press, 1997).

history of colonization and native dispossession is lost on many faculty and administrators at land grant universities. Indeed, said Roediger, “Well intentioned people trying to make an effective argument state ‘it’s a land grant university’ without any sense of whose land and under what circumstances was it granted.”¹³⁷⁶ Academics often fail to realize that higher education is white supremacist. The basic, underlying assumption in academia and society is that higher education is an uncorrupt bastion of equality and multiculturalism.¹³⁷⁷ In general, it is also assumed with regards to the current, ongoing struggle on Mount Graham that science is unbiased, objective, and carries no baggage. In fact, scientists rarely have to argue *for* science. In those instances, politics prevail, even over indigenous, religious, cultural, and environmental rights. In such instances, it becomes easier to understand the role universities play in fostering and promoting both scholarship and racism.¹³⁷⁸ In the words of Sal Salerno, who covered the Mount Graham story for several Minneapolis-based newspapers during the early 1990s, UMN’s actions helped to “delegitimize the image of the corporation (university) in the public mind.”¹³⁷⁹

The concept of power—how it is obtained, kept, and used by, for example, government and elite research universities against American Indians, and how Indians resist—is also vital to understanding UMN’s involvement in the telescope project. The problem of power is strongly linked to the creation of knowledge or knowledge

¹³⁷⁶ See Roediger’s comments during the panel discussion, “Roundtable: Disempowering Racial Oppression, Discontinuing Chief Illiniwek and Other Forms of Racial ‘Entertainment’: A Panel Discussion,” (moderator: D. Anthony Tyeme Clark), www.ais.illinois.edu/news/features/roundtable, 9 Feb 2007.

¹³⁷⁷ See Noam Chomsky, et al, *The Cold War & the University: Toward an Intellectual History of the Postwar Years* (New York: New Press, 1997); Christopher Simpson, *Universities and Empire: Money and Politics in Social Sciences during the Cold War* (New York: New Press, 1999); Daniel Rosenberg, “The Twilight of Reason: Neo-Conservatism and Corruption at Adelphi University, 1985-1997,” *Left History: An Interdisciplinary Journal of Historical Inquiry and Debate*, vol. 8, no. 2 (Spring 2003), 71-113.

¹³⁷⁸ See Gauri Viswanatham, “The Naming of Yale College: British Imperialism and American Higher Education,” in Amy Kaplan and Donald E. Peace, eds., *Cultures of United States Imperialism* (Durham, NC: Duke University Press, 1993), 85-108; Paul Kivel, *You Call this Democracy?: Who Benefits, Who Pays, and Who Really Decides* (2004: New York: Apex Press, 2006); Wilson Smith and Thomas Bender, eds., *American Higher Education Transformed, 1940-2005* (Baltimore: The Johns Hopkins University Press, 2008).

¹³⁷⁹ Sal Salerno to author, personal communication, 20 Sep 2003.

production: Western science versus indigenous ways of knowing and being.¹³⁸⁰

According to UMN's Vice President and Dean of The College of Agriculture, Food, and Environmental Sciences, "Knowledge is our commodity, our stock and trade. Knowledge is the core of the College. We create it. We share, apply and interpret it. We feed on it to build new ideas. This responsibility, given the rate of change in the world now and in the future, is at the same time exciting and sobering."¹³⁸¹ When coupled with the legacies of colonization, exploitation, and mistrust that surround U.S. history, it becomes easier to see why indigenous populations and their allies resist such powerful interests.¹³⁸²

Power is often best exhibited when one side does not need to *argue* for what it wants—in this instance science, for example, in order to *get* what it wants. When UMN's Department of Astronomy Chair, Professor Len Kuhi, came before the University Faculty Senate Social Concerns Committee in late 2001, he only talked about politics, not science. He stated that the Department of Astronomy and the university needed access to this telescope in order to improve its national status, "profile," and rankings; to obtain money; and so the UMN could continue to be a strong place for research and research

¹³⁸⁰ "Mount Graham belongs to everyone," editorial, *Eastern Arizona Courier* (Safford, AZ), 29 May 2002. See also John Scott, "Litmus test proposed for 'pseudo-science,'" *SciDev.Net: Science and Development Network*, 28 May 2002, www.scidev.net/News/index.cfm?fuseaction=readnews&itemid=165&language=1, accessed 13 Jun 2005.

¹³⁸¹ Chuck Muscoplat, "Preface," *Knowledge for a Changing World: The Vision and Priorities*, The College of Agriculture, Food, and Environmental Sciences, University of Minnesota, 2002; Chuck Muscoplat to author, email, 28 Mar 2010. Muscoplat was the UMN Vice President for Strategic Resource Development. The quotation was part of the Strategic Planning documents.

¹³⁸² Vine Deloria, Jr., *Custer Died for Your Sins: An Indian Manifesto* (New York: Macmillan, 1969); Vine Deloria, Jr., *God is Red: A Native View of Religion* (New York: Dell Publishing, 1973); Robert F. Berkhofer, Jr., *The White Man's Indian: Images of the American Indian from Columbus to the Present* (New York: Vintage Books, 1979); Vine Deloria, Jr., "Trouble in High Places: Erosion of American Indian Religious Freedom in the United States," in M. Annette Jaimes, ed., *The State of Native America: Genocide, Colonization, and Resistance* (Boston: South End Press, 1992); Al Gedicks, *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations* (Cambridge: South End Press, 1993); Vine Deloria, Jr., *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact* (New York: Scribner, 1995); Vine Deloria, Jr., *Spirit & Reason: The Vine Deloria, Jr., Reader* (Golden, CO: Fulcrum Publishing, 1999); Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books, 1999); Winona LaDuke, *All Our Relations: Native Struggles for Land and Life* (Cambridge: South End Press, 1999); Al Gedicks, *Resource Rebels: Native Challenges to Mining and Oil Corporations* (Cambridge: South End Press, 2001); Vine Deloria, Jr., *Evolutionism, Creationism, and Other Modern Myths: A Critical Inquiry* (Golden, CO: Fulcrum Publishing, 2002); Winona LaDuke, *The Winona LaDuke Reader: A Collection of Essential Writings* (Stillwater, MN: Voyageur Press, 2002).

profits.¹³⁸³ In making his presentation that day, he followed UA's playbook and presented lies, distortions, and misrepresentations. Kuhi made inaccurate statements and misinformed the committee regarding opposition lawsuits, the state of the environment, Apache resistance, and the general history of the struggle for Mount Graham.¹³⁸⁴ Such actions on the part of astronomers and their allies in the administration support what some scholars call the "technocratic" role of the university, in which scientists get what they want over the protests—in this case—of individuals who felt UMN never made an informed decision and never allowed for any due process, and was therefore guilty by association with UA. The struggle for Mount Graham has shown that multiculturalism and cultural sensitivity—outside of disciplines in the social sciences and humanities—does not reign supreme at supposedly liberal American universities. More than anything else, however, this case depicted clearly the clash between academic and indigenous views and values, and how UMN failed native peoples.

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On October 10-11, 2002, UMN celebrated Columbus Day in a fashion reminiscent of times past. Members of the university community and the larger Minnesota community were reminded painfully that institutionalized racism is alive and well; the decision to

¹³⁸³ Department of Astronomy, University of Minnesota, "Mt. Graham Position Paper," Dec 2001; Senate Social Concerns Committee, University of Minnesota, Meeting Minutes 10 Dec 2001 (<http://www1.umn.edu/usenate/socon/01-12-10.html>); Tom Ford, "American Indian groups protest U's observatory plans," *The Minnesota Daily* (University of Minnesota), 12 Dec 2001. See also, Department of Astronomy, University of Minnesota, "Letter from the Chair" and "Hubbard Broadcasting Gives \$5 Million For Telescope," *Minnesota Astronomy Review: A Newsletter for Friends and Alumni of the University of Minnesota Department of Astronomy*, vol. 16 (Winter 2000/2001), 1-3; Department of Astronomy, University of Minnesota, "The Large Binocular Telescope (LBT Information Page)," www.astro.umn.edu/lbt/ (updated 5 Feb 2002), accessed 22 Feb 2002; The Mount Graham Coalition, "Setting the Record Straight: Rebuttal to the U of M's Head of Astronomy," (<http://www.mountgraham.org/WhitePapers/MNrebuttal.html>), June 2002; Senate Research Committee, University of Minnesota, Meeting Minutes, 13 May 2002, <http://www1.umn.edu/usenate/research/02-05-13.html>; Kealoha Pisciotto to author, email, 2 Nov 2008. UA also argued that dropping the project would hurt its astronomy program's rankings. See Gregory Savikoff, "Unjustly magnified problems," in University Forum: "Should the University support the Mt. Graham telescope project?" *The Cavalier Daily* (University of Virginia), 14 Feb 2002; Elizabeth Managan, "Protect telescope project from politics," *The Cavalier Daily* (University of Virginia), 30 Jan 2002; Department of Astronomy, University of Minnesota, "Research Highlights," flyer, n.d. (June 2005).

¹³⁸⁴ The Mount Graham Coalition, "Setting the Record Straight: Rebuttal to the U of M's Head of Astronomy." See also, The Mount Graham Coalition, "Reply to U. of Minnesota Astronomy Department's Mt. Graham position paper, Dec. 2001. Author, Dr. Leonard Kuhi, Chair, Dept. of Astronomy," rough draft (ca. Feb 2002).

violate traditional Apaches for a telescope project in Arizona truly undermined the work of many people and many relations at the university.¹³⁸⁵ Many Apache people and

¹³⁸⁵ See Department of American Indian Studies, University of Minnesota, to President Mark Yudof, letter, 15 Mar 2002; Department of American Indian Studies, University of Minnesota, to Members of the Faculty Senate, letter, 20 Oct 2003; Testimony by author to Senate Research Committee, University of Minnesota, Meeting Minutes, 9 Feb 2004.

The amount of information withheld at various points by UMN—contracts, agreements, letters, et cetera—is astounding. This information should have been made public, but it took months for me to see an updated version of the gift agreement between the University and Hubbard. In early November 2003, the Office of the General Counsel permitted me through a Freedom of Information Act request to look through a box of letters, faxes, emails, and phone messages regarding the telescope project on Mount Graham. Citizens and groups sent these materials to the Board of Regents headquarters before the Regents' October 2002 meetings. In the box, I found literally hundreds of letters from all over the United States—and even a few letters from France. One letter was from the Sierra Club and another was from several members of the Minnesota House of Representatives. More than half of the UMN's Medical School Class of 2005, or over 80 students, signed a unique letter of opposition that discussed Apache health vis-à-vis the telescope project. Several Apaches wrote passionate letters. Some environmentalists such as Bob Witzeman of the Maricopa Audubon Society, wrote letters and sent large bound packets of information (See Robert Witzeman to Maureen Reed (Chair, UMN Board of Regents), letter and 77+ page packet, 3 Sep 2002). Other organizations such as Honor the Earth and the Center for Cross-Cultural Health in Minnesota sent letters. Church groups such as the Sisters of St. Joseph of Carondelet in St. Paul, Minnesota, and the Native American Connections Committee of the First Universalist Church sent letters. There were dozens of phone messages on the Board of Regents' voicemail system. For example, representatives from organizations such as the Indigenous Tourism Rights International, Danza Mexica, and others called.

It is important to note that the opposition was not from a few disgruntled Apaches and environmental activists living in Arizona. The box included dozens of letters and emails from faculty, staff, and students who represent various colleges and departments at UMN. Nearly all of the correspondence was rather long and heartfelt.

What is clear is that the Regents did not receive the large packet of information until they reached the Board office on October 10, 2003—the day that they were expected to approve the \$5 million project in committee. And, according to the memo from the Regents' Secretary Ann Cieslak, dated October 9, 2002, the packet only included information that reached the Board office before June or July of 2002. The Secretary advised the Regents to go through the files at the Board of Regents headquarters if they needed to see the correspondence that arrived prior to June or July. (See also, Ann Cieslak to Regent Anthony Baraga, Regent Robert Bergland, Regent Frank Berman, Regent Dallas Bohnsack, Regent William Hogan, Regent Jean Keffler, Regent Richard McNamara, Regent David Metzen, Regent H. Bryan Neel, Regent Michael O'Keefe, Regent Lakeesha Ranson, and Regent Maureen Reed, facsimile "Re: Large Binocular Telescope Project on Mt. Graham," 5 Sep 2002.)

In other words, the Regents received a massive packet of information when they reached the offices. It was not a complete record. And, Regent Jean Keffeler (a long serving Regent who received national attention in 1996 for her support of drastic tenure changes at Minnesota), who was on the conference call and yet voted for the project, might not have received any information about the telescopes, aside from what people sent directly to her. So, the only information that they had to make their decision was: 1) the Letter from President Robert Bruininks that was penned by Sandra Gardebring and then read (apparently the Regents could not read the letter by themselves) by Provost Christine Mazier; and 2) the audience support and the testimony from San Carlos Apaches Sandra Rambler and Wendsler Nosie.

There was little discussion about the telescope project during the full meeting of the Board the next day.

activists felt that the misconduct and deception by Minnesota, to appropriate Mount Graham, was staggering. Minnesota astronomers uncritically republished inaccurate and deceptive information supplied by UA, the only university to fight American Indian religious freedom in court, and to exempt themselves from all cultural and environmental protection laws.¹³⁸⁶ As these facts threatened the political image of the University, the high priests of the Institute of Technology sat cloistered in silence, and more skilled administrators such as a Public Relations lawyer named Sandra Gardebring (Vice President for External Relations) and the eventual Provost Christine Maziar quickly took over. They were directed by then-Provost and eventual President, Robert “Bob” Bruininks, to do so. In an undated email, probably sent in late 2001 or early 2002 (but before February 2002), Bruininks, a steadfast UMN administrator, addressed what he saw as a potential public relations nightmare. At one point, he said, “I think this could get far more attention than we might imagine.”¹³⁸⁷ Bruininks clearly knew what was coming when he broadcast the email to many deans, vice presidents, and the Board of Regents headquarters at UMN. He requested that Gardebring and Ted Davis, the Dean of UMN’s Institute of Technology,

Craft our public message on this issue, 2.) Draft a response that can be sent by Mark [Yudof] and me (and I am sure eventually by members of the Board [of Regents]) that responds to the emails we are getting from the community on this issue, and 3.) Decide on and implement action to address the requests made by Mr. [Dwight] Metzger and Mr. [Guy] Lopez, the two organizers who have been making the rounds with administrators, Bill Hogan, local Native American community groups, and our various advisory and Senate committees.

¹³⁸⁶ See The Mount Graham Coalition, “Setting the Record Straight: Rebuttal to the U of M’s Head of Astronomy.” Both UMN and the University of Virginia took their cues from the UA’s propaganda machine. See also, The Mount Graham Coalition, “Setting the Record Straight: Reply to the erroneous and misleading statements in the website of the U. of Virginia astronomy department ‘Fact Sheet’ regarding the Mt. Graham telescope project” (<http://www.mountgraham.org/WhitePapers/VArebuttal.html>), Jun 2002. Websites and materials from the University of Minnesota’s Department of Astronomy still link to Arizona’s (1 Nov 2008).

¹³⁸⁷ Robert Bruininks to Sandra Gardebring, Len Kuhi, and Ted Davis (cc’d to Mark Yudof, Jan Morlock, Chris Maziar, Robert Jones, Kathy Brown, Donna Peterson, Florence Funk, Ann Cieslak, Elizabeth W., and Tonya Brown), email, n.d. (possibly Dec 2001).

At the end of his email, Bruininks made it clear to the recipients that he did not want the matter “escalating ... to the President or me.”¹³⁸⁸ Bruininks’ circling of the wagons showed that administrators at Minnesota had already made up their minds.

UMN astronomers courted Stanley Hubbard of Hubbard Broadcasting years before he gave his \$5 million donation in December 2000.¹³⁸⁹ A photograph in Minnesota’s Department of Astronomy winter 2000-2001 newsletter, *Minnesota Astronomy Review*, showed Kuhi with Hubbard, UA astronomer Peter Strittmatter, and UMN astronomer Robert (Bob) Gehrz “standing by the sub-millimeter telescope on Mount Graham.”¹³⁹⁰ Hubbard demonstrated in September 2002, before Minnesota approved its investment, that he was misinformed all along about the Apache opposition to the telescopes. In a letter to Ola Cassadore Davis, director of the Apache Survival Coalition, Hubbard erroneously stated, “The telescope is built. It was approved by the government and the tribe.” He subsequently stated that UMN could use the money as “they saw fit.”¹³⁹¹ When that information was about to become news, UMN did emergency damage control, telling Hubbard about planned incentives for the Apaches. The university never told Hubbard, however, that the traditional people had repeatedly said that their religion is not for sale, that “access” to the desecrated sacred site was not an issue, and that the only way to respect their culture is to stay off Mount Graham. UMN never disclosed that five previous San Carlos Apache Tribal resolutions from 1990 to 2001 opposed astrophysical development; at no point did San Carlos or White Mountain

¹³⁸⁸ Bruininks to Gardebring, et al., email, n.d. (possibly Dec 2001).

¹³⁸⁹ Campaign Minnesota, University of Minnesota, “Gift Agreement,” signed by Stanley S. Hubbard (3 Jan 2001), Mark G. Yudof, H. Ted Davis, Leonard V. Kuhi, and Gerald B. Fischer, 8 Dec 2000; Len Kuhi to Peter Strittmatter, email, 6 Sept 1998; Senate Faculty Consultative Committee, University of Minnesota, Meeting Minutes, 20 Dec 2001. There are a few emails, obtained by Freedom of Information Act requests by me to UMN, that Len Kuhi sent in the 1990s that discussed using Stanley Hubbard’s plane to travel to Arizona. There is one email from Kuhi that discussed the possibility of having UMN astronomers travel to Tucson by plane and then catch a helicopter to Mount Graham in order to save time. See also, Department of Astronomy, “Hubbard Broadcasting Gives \$5 Million For Telescope,” *Minnesota Astronomy Review*, vol. 16, 1, 3; Sean Kean, “U. Minnesota buys into space observatory amid controversy,” *The Minnesota Daily* (University of Minnesota), 10 Aug 2001.

¹³⁹⁰ Department of Astronomy, *Minnesota Astronomy Review*, vol. 16, 3.

¹³⁹¹ Stanley Hubbard to Ola Cassadore Davis, letter, 6 Sep 2002; Raleigh Thompson to Robert Metzger (Chair, UMN Board of Regents), letter, 10 Aug 2003; David Miller to author, email, 6 Oct 2003; See Brad Unangst, “Telescope project spurs protest outside KSTP,” *The Minnesota Daily* (University of Minnesota), 26 September 2002, 5.

Apache tribal councils support the astronomers' efforts. Nor did astronomers inform Hubbard of the viewing time available on other telescopes in 2002.¹³⁹²

The university also stonewalled for two months regarding Freedom of Information Act (FOIA) requests to disclose the draft agreement between UMN and the Research Corporation that controls the telescopes, as well as the contents of the gift contract between UMN and Hubbard.¹³⁹³ As activist Dwight Metzger pointed out, "This request has repeatedly been withheld without explanation by the University." But opposition to UMN's proposed investment was mounting. According to Metzger, "In regards to the U of M, we are encouraged that a large and qualified student, faculty advisory committee opposition to U of M's potential investment has occurred. The U of M administration publically expresses the willingness to have an open dialog and investigate with integrity the issues regarding their potential investment, yet in private is crafting public relations maneuvers which are designed to keep them in the telescope without accountability to concerned parties at the University, and also is withholding this

¹³⁹² New telescope options continuously become available. Just before Minnesota joined the telescope project on Mount Graham, Dartmouth, Wisconsin, Florida, and Carnegie-Mellon spurned Mount Graham and joined the huge 10.4-meter Canary Island telescope and the 9.1-meter Southern African Large Telescope (SALT). Harvard, MIT, and Michigan likewise rejected Mount Graham for two massive 6-meter telescopes in Chile. A \$3,000,000 partnership was still open at the SALT in 2002. See Southern African Large Telescope, "People & Partners," www.salt.ac.za/content/people/default.htm, accessed 19 Mar 2002. Stanley Hubbard, rather than insulting all American Indians with this profound desecration, could have spent the remaining \$2,000,000 of his gift by buying viewing time on any of a number of major telescopes worldwide.

¹³⁹³ Joel T. Helfrich to Susan McKinney, "Request for Information...", email, 12 Dec 2001; Joel T. Helfrich to Susan McKinney, "Request for Information regarding the Mt. Graham Telescope," email, 25 Jan 2002; Susan McKinney to Jill M. Doerfler, letter, 11 Feb 2002. For early versions of relevant contracts, see: "Agreement" Between The Research Corporation and The University of Minnesota, n.d., 1-2; "Understanding Between The Research Corporation and The University of Minnesota," 6 Nov 2001, 1-4; "Agreement Between and Among The Research Corporation, The Regents of the University of Minnesota, the LBT Corporation, and the University of Arizona," draft 2, n.d., 1-6; Robert O. Leshner (Research Corporation attorney) to Dean H. Ted Davis (UMN), letter, 6 Sep 2001, 1-2; "Understanding Between The Research Corporation and The University of Arizona," draft 3, Jun 2001, 1-3; "Agreement Between and Among The Research Corporation, The Regents of the University of Minnesota, the LBT Corporation, and the University of Arizona," draft 2 [3?], n.d., 1-6. For information regarding the use of Freedom of Information Act laws for obtaining documents from employees at public colleges and universities, see "Campus E-Mail Exposed to Public Scrutiny," *The Chronicle of Higher Education*, 17 Jun 2002; Andrea L. Foster, "Your E-Mail Message to a Colleague Could Be Tomorrow's Headline: Public colleges find that open-records laws apply to seemingly private communication," *The Chronicle of Higher Education*, 21 Jun 2002, A31, <http://chronicle.com/free/v48/i41/41a03101.htm>.

information, which is very relevant to the debate.”¹³⁹⁴ Despite obvious the public interest and right to contractual information, the UMN continued throughout 2002 and beyond to withhold documents and avoid dialogue, discussion, and debate.

UMN officials said they were not informed about the controversies until December of 2001, despite the fact that when UMN announced it was joining the project, its student newspaper noted, “U buys into space observatory amid controversy.”¹³⁹⁵ UMN assertions begged the question: why would the university enter a multi-million dollar, long-term relationship with a university that was dishonest about issues of such great consequence? Also, how could UMN claim innocence regarding further desecration of Mount Graham? Leading people to believe that they were merely participating in manifest destiny, the reality was that UMN helped to finance the continued destruction of the mountain, and legitimized the UA’s effort underway by February/March 2002 to build four more telescopes.¹³⁹⁶ UMN’s plans flew in the face of a fifth opposition resolution in June 2001 by the San Carlos Apache Tribal Council, as well as four anti-Mount Graham telescope resolutions in 1993, 1995, 1999, and 2001 by the National Congress of American Indians (NCAI), which represents nearly all American Indian tribes in the U.S.¹³⁹⁷ The NCAI document singled out UVA, UMN, University of Florida, and Dartmouth as institutions that were considering joining UA.¹³⁹⁸ Soon afterwards, UA started to lobby for another exemption of all laws to build these telescopes on Mount Graham—an action that will have the effect of appropriating more forested peaks and denying the Apaches and the public any legal standing to stop it. UMN astronomers were

¹³⁹⁴ Dwight Metzger to Preston Selleck, “mount graham public records request,” email, 7 Feb 2002.

¹³⁹⁵ Bruininks to Gardebring, et al.; See the Senate Social Concerns Committee, University of Minnesota, Meeting Minutes, 10 Dec 2001 (<http://www1.umn.edu/usenate/soccon/01-12-10.html>); Sean Kean, “U buys into space observatory amid controversy,” *The Minnesota Daily*, 10 Aug 2001.

¹³⁹⁶ George Asmus (District Ranger, Safford Ranger District, U.S.D.A. Forest Service) to Robert Witzeman (Maricopa Audubon Society), letter, 1 May 2002; Arthur Rothstein, Associated Press, “Telescope feud never quits: Mount Graham observatory a legal battle,” *Arizona Republic* (Phoenix), 9 Jun 2001.

¹³⁹⁷ San Carlos Apache Tribe, resolution JN-01-04, 5 Jun 2001.

¹³⁹⁸ See National Congress of American Indians, Annual Session Resolution #SPO-01-063 resolution, 25-30 Nov 2001 (Spokane, WA), www.ncai.org/data/docs/resolution/2001annual/063.pdf; Michael Nixon to Kristen Frey, email, 24 Feb 2004; Bob Witzeman to Michael Nixon, email, 24 Feb 2004.

undoubtedly delighted about the prospect of joining this mega astro-colonialist venture, but many at the university were ashamed.¹³⁹⁹

In early 2002, university President Mark Yudof actively participated in a campaign of disinformation. During a January 2002 interview on Minnesota Public Radio (MPR), Yudof claimed that Apaches were divided on the issue of Mount Graham—a claim that had in December 2001 been challenged by Apaches during various on-campus meetings with university officials and committees.¹⁴⁰⁰ Yudof made additional inaccurate statements about the telescopes, for example on MPR in March 2002, and throughout the Winter and Spring months of 2002.¹⁴⁰¹ Before noting the “tremendous opposition within the two nearby Apache Nations,” Yudof stated, “I think a fair assessment is that the science is very good science.” He stated that he “asked the American Indian Advisory group to sort of fill me in,” despite the fact that the president’s advisory committee had voiced its opposition one month earlier. “We’d sort of like to get this behind us by the end of summer,” stated Yudof.¹⁴⁰² In a number of instances, Yudof publically made it clear that since the telescopes were “already built,” it was acceptable to join the project. Many Apaches, environmentalists, and university community leaders attempted to combat this faulty reasoning, to no avail. Maricopa Audubon Society activist Bob Witzeman said it best: “Yudof has this weird philosophy that if others are partners in burning and looting a store, it’s alright for UM to join since the damage is already done and we might as well steal the merchandise remaining in the window.”¹⁴⁰³

¹³⁹⁹ Department of Astronomy, *Minnesota Astronomy Review*, vol. 16; Eric Hallman, April Homich, Evan Skillman, and Chick Woodward, “Telescope benefits eclipsed by tainted truth,” letter to editor, *The Minnesota Daily* (University of Minnesota), 12 Mar 2002.

¹⁴⁰⁰ Mark Yudof, Interview by Katherine Lanpher, *Midmorning*, Minnesota Public Radio, 16 Jan 2002. See Senate Social Concerns Committee, University of Minnesota, Meeting Minutes, 10 Dec 2001 (<http://www1.umn.edu/usenate/soccon/01-12-10.html>).

¹⁴⁰¹ Mark Yudof, “The moral universe within,” letter to editor, *The Minnesota Daily* (University of Minnesota), 11 Mar 2002; Mark Yudof, Interview by Katherine Lanpher, *Midmorning*, Minnesota Public Radio, 13 Mar 2002; William “Sky” Crosby to Robert Witzeman, email, 15 Mar 2002. Robert Witzeman to author, email, 8 Apr 2002.

¹⁴⁰² Yudof, Interview, 13 Mar 2002; Cara Saunders to MNoffMtGraham@yahoo.com, email, 18 Mar 2002; William Crosby to Bob Witzeman, “Yudoff [sic] on MPR” (Transcript of Mark Yudof, Interview, 13 Mar 2002), email, 15 Mar 2002.

¹⁴⁰³ Robert Witzeman to author, email, 28 May 2002.

Such disinformation by the President, other administrators, and astronomers grossly misrepresented the appeals by Apache medicine men and women, Tribal leaders, national religious leaders, and environmentalists.¹⁴⁰⁴ Yudof, and other administrators who followed after his departure for the University of Texas in 2002, failed not only to recognize the public statements made by American Indian students and faculty at the university and elsewhere but also to conduct real consultation within Indian communities.¹⁴⁰⁵ A landscape architecture graduate student wrote to the student

¹⁴⁰⁴ See University Relations, University of Minnesota, "The Large Binocular Telescope Project Fact Sheet," *The Source: campus issues, up close* (University of Minnesota), 7 Feb 2002, www1.umn.edu/urelate/thefsource/lbtproject/lbtfactsheet.html, accessed 11 Feb 2002. Compare to later versions: University Relations, University of Minnesota, "The Large Binocular Telescope Project," *The Source: campus issues, up close* (University of Minnesota), 8 Aug 2002, www1.umn.edu/urelate/thefsource/lbtproject/lbtproject.html, accessed 29 Sep 2002.

¹⁴⁰⁵ Yudof would eventually dismantle higher education in California during 2009 and beyond. A sample of just a few of the criticisms of Yudof at UMN: San Carlos Apache Tribe, Resolution JN-01-04, 5 Jun 2001; Ola Cassadore Davis (Apache Survival Coalition) to Mark Yudof, letter, 6 Dec 2001; University of Minnesota American Indian Student Cultural Center, "Mount Graham Press Conference" (Oak Folks Films), 10 Dec 2001; Wendsler Nosie, Sr. (Apaches for Cultural Preservation) to Mark Yudof, letter, 18 Dec 2001; Sandra Rambler, "Traditionally Speaking...", *San Carlos Apache Moccasin* (Globe, AZ), 26 Dec 2001; The Mount Graham Coalition, "Setting the Record Straight: Rebuttal to U of M's Head of Astronomy"; Dallas Massey, Sr. (Tribal Chairman, White Mountain Apache Tribe) to Mark Yudof and John T. Casteen, III (UVA President), letter, 9 Jan 2002; Shirley Titla (Councilmember, San Carlos Apache Tribe) to Mark Yudof and John T. Casteen, III (UVA President), letter, 11 Jan 2002; Myron Moses (Councilmember, SCAT) to Mark Yudof and John T. Casteen, III (UVA President), letter, 11 Jan 2002; Robert Olivar, Sr., (Councilmember, SCAT) to Mark Yudof and John T. Casteen, III (UVA President), 11 Jan 2002; Deborah Locke, "Religion vs. Science: Some Apaches believe a telescope being built on an Arizona mountain will destroy a sacred place," *St. Paul Pioneer Press*, 31 Jan 2002; Winona LaDuke, "The Mount Graham International Observatory and the U of M," *The Circle* (Minneapolis), vol. 23, issue 1, 31 Jan 2002; Press Release, "Rally, Vigil, and Press Conference for Mount Graham"; Keith H. Basso to Mark Yudof, letter, 18 Feb 2002; Scott Laderman, "University should not invest in telescope," *The Minnesota Daily* (University of Minnesota), 28 Feb 2002, 7; David Hodges, "Mt. Graham telescope desecration," letter to editor, *News from Indian Country: The Independent Native Journal*, Late Feb 2002; Carolina Butler, "Arizona's Taliban," letter to editor, *News from Indian Country: The Independent Native Journal*, Late Feb 2002; Sandra Rambler to University of Minnesota Senate Social Concerns Committee (copied to Mark Yudof, Yvonne Novack, and Norman Deschampe), letter, 2 Mar 2002; Jill Doerfler, Joel Helfrich, and Sraddha Helfrich, "Lost in space: Telescopic vision eclipses facts," *The Minnesota Daily* (University of Minnesota), 14 Mar 2002; Department of American Indian Studies to Yudof, 15 Mar 2002; Andy Holdsworth, "U can do better than Mt. Graham," *The Minnesota Daily* (University of Minnesota), 25 Mar 2002; Dwight Metzger, "Controversy over Mount Graham Causes March at U of M," *The Pulse of the Twin Cities* (Minneapolis), 15 May 2002; Joel T. Helfrich, "Stephen Jay Gould's 'Golden Rule' revisited," *C-Ville Weekly* (Charlottesville, VA), vol. 14, no. 23, 4 Jun 2002, 55; Frank Graham, "Mt. Graham makes all equal," letter to editor, *Eastern Arizona Courier* (Safford, AZ), 5 Jun 2002; Sandra Rambler, "Apache have no hidden agendas on telescope," *The Daily Progress* (Charlottesville, VA), 10 Jun 2002; Timothy Crisler, "Mt. Graham in peril," *The Minnesota Daily* (University of Minnesota), 17 Jun 2002; "University should withdraw Mount Graham support," editorial, *The Minnesota Daily* (University of Minnesota), 17 Sep 2002, 6; Timothy Crisler,

newspaper: “I haven’t really heard anyone come out in support of the [telescope plan]. Maybe this is why our governor insists on calling the University budget ‘bloated.’”¹⁴⁰⁶ As the world’s preeminent anthropologist of Apache language and culture, Keith Basso, put it in a letter to Yudof: “The decision to join the telescope consortium is, of course, yours and yours alone. But the consequences of the decision will be felt through this country’s Native American community and surely beyond it. I hope the consequences will be flattering ones for the University of Minnesota.”¹⁴⁰⁷ Similar pleas in letters, protest, and petitions went unheeded.

In the fall of 2001, Tucson activists Metzger and Anthony “Guy” Lopez, longtime opponents of the telescope project with the Mount Graham Coalition, traveled to Minneapolis to inform the UMN community about Arizona’s efforts to obtain additional collaborators. Metzger, a printer, and Lopez, a Lakota Indian and former UA student, made their case persuasively during community and on-campus meetings and events. Eventually Metzger led the campaign in Minnesota, while Lopez lobbied at UVA.¹⁴⁰⁸ They lobbied, protested, wrote opinion columns, met with students, administrators, and faculty, obtained signatures on petitions, and organized the opposition, among many other activities. During a visit to Minneapolis by President George W. Bush, several

“Fire on the Mountain,” letter to editor, *Indian Country Today*, 19 Jun 2002; Timothy Crisler, “Observatory criticized,” letter to editor, *Eastern Arizona Courier* (Safford, AZ), 19 Jun 2002; Ruth Rogers, “Science on sacred site,” letter to editor, *Star Tribune* (Minneapolis), 9 Jul 2002; Ruth Rogers, letter to editor, *Earth First!: The Radical Environmental Journal*, vol. 22, no. 7, Lugnasadh (Aug-Sep 2002), 3; Roger Geertz Gonzalez, “Land as Sacred as a Church,” letter to editor, *The Chronicle of Higher Education*, 2 Aug 2002; William F. Crosby (Environmental and Cultural Conservation Organization) to Dallas Bohnsack (UMN Regent), letter, 8 Aug 2002; Joel T. Helfrich, “U of M Should Respect Apache Culture, Stay Off Mount Graham,” *The Wake* (University of Minnesota), 25 Sep 2002, 2; Ryan Black, “Telescope logic is faulty,” letter to editor, *The Minnesota Daily* (University of Minnesota), 1 Oct 2002, 6; Sraddha P. Helfrich, “Mount Graham threatens science without humanity,” *The Minnesota Daily* (University of Minnesota), 1 Oct 2002, 7; Scott Laderman, “Telescope endorsement embarrasses University,” *The Minnesota Daily* (University of Minnesota), 8 Oct 2002, 7; Sraddha P. Helfrich (medical student) to Maureen Reed (Chair, Board of Regents), letter, 8 Oct 2002; Deborah Locke, “To the Point: Telescope Project: where religion, science collide,” *St. Paul Pioneer Press*, 9 Oct 2002; Mount Graham Coalition, “Sacred Apache Mountain Threatened by Telescope Development,” flyer, n.d.

¹⁴⁰⁶ Jeff Zeitler, “Telescope funding,” letter to editor, *The Minnesota Daily* (University of Minnesota), 23 Jan 2002.

¹⁴⁰⁷ Basso to Yudof, 18 Feb 2002.

¹⁴⁰⁸ See full-page advertisement, “Call to the University of Virginia to Respect American Indian Religious Freedom and Dzil Nchaa Si An (Mt. Graham),” in *C-Ville Weekly* (Charlottesville, VA), 14-20 May 2002.

activists protested and received media attention by holding banners against UMN's participation in the telescope project.¹⁴⁰⁹ American Indian communities on the UMN campus quickly voiced opposition to the UMN participation in the project. During an all-Indian press conference hosted by UMN's American Indian Student Cultural Center on December 10, 2001, undergraduate pre-med student Cheryl Goodman announced UMN American Indian Cultural Center's opposition to UMN's planned involvement. The director of the UMN American Indian Learning Resource Center, Roxanne Gould, described her frustrations in dealing with the UMN administration; detailed the lack of understanding, knowledge, and inability by administrators to seek advice from on-campus Indian groups such as the American Indian Advisory Committee regarding its plans; and discussed its unwillingness to consult with Apache people in Arizona.¹⁴¹⁰ In many ways, Gould's stance in this case eventually helped her lose her UMN employment when she was laid off a short time later.

The Cultural Chairman for the Mendota Dakota Indian Community, Jim Anderson, spoke about the historic "spiritual and cultural genocide" in Minnesota. He connected what was happening on Mount Graham, with sacred sites struggles and the theft of the sacred in Minnesota. He pleaded with UMN officials to go elsewhere. He also put forth a call to remove the telescopes from Mount Graham. Lopez echoed Anderson's call for UA to leave the mountain. He cited Arizona and national groups that opposed the project. He described how "all of Indian country ... unanimously stand[s] ... against the observatory on Mount Graham," including a National Congress of American Indians resolution in November 2001. "In our effort to gain a due process here at this university," Lopez and Metzger met with UMN Regent William Hogan, Provost Bruininks, Dean Davis, and astronomy department chair Kuhi. "Everyone we met with admitted they knew virtually nothing about the Apache or Native American opposition to the observatory," noted Lopez. In an oft-repeated, apt comment, Lopez declared, "the

¹⁴⁰⁹ See the photograph by Rachel Jeffers in *The Minnesota Daily* (University of Minnesota), 15 Jul 2002, 12.

¹⁴¹⁰ University of Minnesota American Indian Student Cultural Center, "Mount Graham Press Conference"; Ford, "American Indian groups protest U's observatory plans."

university did not do its homework” and refused to engage in dialogue, discussion, and debate.¹⁴¹¹

Anishinabe Indian activist Winona LaDuke of the White Earth Land Recovery Project and the organization Honor the Earth, as well as a longstanding vice presidential nominee on the Green Party ticket, stated, “At first look one could consider this in a number of ways. On one level it is the conflict between paradigms. It is the view of one society which must constantly look for a new frontier endlessly and ... another society which is content with its life and that which the Creator has given it here on Earth. That is one simple way to look at this conflict,” LaDuke pointed out. “But it is also quite frankly a conflict between laws and issues of political power—who has money and who does not, who is deemed as appropriate, and who is deemed as of value, and who is deemed as having the right to run essentially roughshod over a number of communities.” Asserted LaDuke, “The University of Minnesota should not become involved in this project. It is a project which is considered a pariah as far as national [astrophysical] projects across the country.” She cited and detailed the scientific evidence against the telescope project; noted the exemptions given to UA and the laws bypassed by the UA such as National Environmental Protection Act, Endangered Species Act, and American Indian Religious Freedom Act; quoted former UA biologist Peter Warshall’s comments regarding UA’s actions and San Carlos Apache Franklin Stanley’s comments regarding religion and the sacredness of Mount Graham; and took note of the universities that have backed away from the project.¹⁴¹²

In the years between the second Congressional exemption for UA in 1996 and 2001, when UA actively sought the participation of UMN and UVA, various groups opposed to the astronomical activities on Mount Graham kept the pressure on episodically.¹⁴¹³ President Clinton signed an Executive Order in 1996 “to protect and

¹⁴¹¹ University of Minnesota American Indian Student Cultural Center, “Mount Graham Press Conference.”

¹⁴¹² University of Minnesota American Indian Student Cultural Center, “Mount Graham Press Conference.”

¹⁴¹³ See Mt. Graham Coalition, “Living Land, Sacred Land (The case against the Mt. Graham observatory,” full-color lobbying packet, n.d.; “White Mountain Apache Tribe passes resolution urging USFS to honor its duties to protect Mt. Graham,” *San Carlos Apache Moccasin* (Globe, AZ), vol. 15, no. 7, 1 Sep 1999.

preserve sacred sites.”¹⁴¹⁴ The University of Wisconsin-Madison, Carnegie-Mellon University, University of North Carolina-Chapel Hill, and Rutgers University rejected the astrophysical development on Mount Graham. When UMN announced its plans to join the project, numerous Apache people and their allies in the Apache Survival Coalition, Apaches for Cultural Preservation, and The Mount Graham Coalition travelled to Minnesota’s campus in 2001 and 2002 in an attempt to set the record straight.

Throughout 2002, numerous Apaches and environmental activists visited UMN’s campus. First, Raleigh Thompson, former San Carlos Apache Tribal Council Chairman, visited Minnesota and returned multiple times before UMN made its decision.¹⁴¹⁵ In January 2002, he spoke to the Minnesota Indian Affairs Council, an organization that represents all 11 federally recognized Indian tribes and all American Indian citizens throughout the state of Minnesota, which passed a unanimous resolution against the university’s involvement that stated:

The Minnesota Indian Affairs Council ... strongly respectfully request and urge the University of Minnesota and any university or other entity, foreign or domestic, to look elsewhere for their astronomical developments to not join the UA and its collaborators in their Mount Graham telescope complex which desecrates *Dzil Nchaa Si An* and continues to harm Western Apache people, their culture and their religion.¹⁴¹⁶

Thompson also spoke to UMN’s President’s American Indian Advisory Committee, a board that was created in 1988 and is charged with the duty to educate and advise the UMN president on matters regarding and relations with American Indians.¹⁴¹⁷ In February 2002, the committee released a statement opposing the Mount Graham project: “the Advisory Board has researched the Mt. Graham issue looking at the cultural, religious, social, political, and scientific aspects and we firmly believe that the University

¹⁴¹⁴ William J. Clinton, Executive Order, “Indian Sacred Sites,” 24 Mar 1996.

¹⁴¹⁵ Raleigh Thompson spoke at Walker Church in Minneapolis on January 17, 2002, and at several on and off campus events in January. See Mount Graham Coalition, “Community Event with Special Guest Raleigh Thompson, Former Apache Tribal Council Chairman and Leader in the Struggle to Protect Dzil Nchaa Si An, Thursday January 17, 2002, 7pm, Walker Church, 3104 16th Ave. S. Mpls,” flyer, 12 Jan 2002.

¹⁴¹⁶ State of Minnesota Indian Affairs Council, Resolution: 011502-09, 15 Jan 2002.

¹⁴¹⁷ University of Minnesota Board of Regents, Meeting Minutes, (<http://conservancy.umn.edu/bitstream/359/1/UNA19881110.pdf>), 10-11 November 1988.

[of Minnesota] should not participate in this endeavor.”¹⁴¹⁸ A coalition of Native Minnesotans, including longtime activist and American Indian Movement founder Clyde Bellecourt, and environmental advocates then held a demonstration and 24-hour vigil in front of Eastcliff, President Yudof’s university-owned house on January 23, 2002.¹⁴¹⁹



“A man who identified himself only as Rory, left, and Marshall Lough finish putting up a tepee in front of University of Minnesota President Mark Yudof’s house in St. Paul before a news conference Wednesday. They were among protesters opposing a university plan to buy a share in a telescope constructed on Apache holy land in Arizona.”¹⁴²⁰

On February 11, 2002, Cassadore Davis testified before the UMN Senate Social Concerns Committee. A guest at the meeting presented a letter from Charles Kaut, an anthropologist from UVA who had studied and worked with Western Apaches since the 1950s. “In my opinion, no University or institution should give the University of Arizona money to complete the highly questionable project. Numerous other astronomers at

¹⁴¹⁸ Yvonne Novack (Chair, American Indian Advisory Board) to Mark Yudof (President, UMN), letter 11 Feb 2002.

¹⁴¹⁹ Mount Graham Coalition, “Rally, Vigil, and Press Conference for Mount Graham: Native American Leaders ask U of M to Hear Traditional Apache Concerns,” Press Release, 21 Jan 2002; Minnesota Off Mount Graham, “Rally and media event at 3:00pm, Wednesday, January 23, 2002,” flyer, Jan 2002; Tom Ford, “Opposition to telescope plan gains momentum,” *The Minnesota Daily* (University of Minnesota), 23 Jan 2002; Tom Ford, “Telescope protest presents ‘symbolic gesture’ at Eastcliff,” *The Minnesota Daily* (University of Minnesota), 24 Jan 2002; Liz Kohman, “Indians take telescope protest to U president’s home turf,” *St. Paul Pioneer Press*, 24 Jan 2002; Mary Jane Smetanka, “Telescope prompts protest at Yudof’s house: American Indians object to the role the ‘U’ is playing in the Arizona project,” *Star Tribune* (Minneapolis), 24 Jan 2002.

¹⁴²⁰ Kohman, “Indians take telescope protest to U president’s home turf.”

prestigious schools and scientific institutions from coast to coast have rejected the site. Now other institutions contemplating becoming part of the project should do the same. They can be ethically courageous and stand-up [for] the rights of the Apache,” wrote Kaut. “No one should be responsible, even part, for contributing to the continuing disruption of another person’s deep religious beliefs.”¹⁴²¹ Shortly after the meeting, the Committee reported in March:

Mount Graham has long been sacred ground. It has now become a symbol of indigenous culture and a marker of the ugly history of native oppression as well. We lack the means to change these meanings, to alter that history. But we counsel that we *do* have a choice for ethical action in the present moment. On ethical, material, political and cultural grounds, we cannot afford to join the MGIO project.¹⁴²²

Many Apaches and environmental activists were under the impression by that point that UMN could not, in the face of such opposition, join the project.¹⁴²³ UMN astronomers would later selectively use quotations from the Social Concerns position report that supported their efforts.¹⁴²⁴ And UMN President “Yudof’s intention to consult with many stakeholders,” according to student journalist Tom Ford, never truly materialized; in fact, he failed to seriously consider the opposition of a number of on- and off-campus groups.¹⁴²⁵

Wendsler Nosie, former councilman for the San Carlos Apache Tribe and founder of Apaches for Cultural Preservation, spoke during a rally on campus and during several

¹⁴²¹ Social Concerns Committee, University of Minnesota, Minutes of Meeting, 11 Feb 2002, www1.umn.edu/usenate/soccon/02-02-11.html, accessed 7 Feb 2004. Among other writings by Kaut, see: Charles R. Kaut, “Western Apache Clan and Phratry Organization,” *American Anthropologist*, vol. LVIII, no. 1 (Feb 1956), 141; Charles Raymond Kaut, *The Western Apache Clan System: Its Origins and Development*, University of New Mexico Publications in Anthropology, no. 9 (Albuquerque: University of New Mexico, 1957); Charles Raymond Kaut, “Notes on Western Apache Religious and Social Organization,” *American Anthropologist*, vol. 61 (1959), 99-110

¹⁴²² Social Concerns Committee, University of Minnesota, “Mount Graham Project and the University of Minnesota: Social Concerns Committee Position Report,” Mar 2002, <http://www1.umn.edu/usenate/soccon/mountgraham.html>, emphasis in original. See also, Senate Social Concerns, University of Minnesota, resolution, 5 May 2003.

¹⁴²³ The Social Concerns Committee maintained its stance, even after UMN made its decision.

¹⁴²⁴ Department of Astronomy, University of Minnesota, “Large Binocular Telescope—update sheet,” Oct 2003, 1-2.

¹⁴²⁵ Tom Ford, “U Social Concerns Committee examines Mt. Graham telescope,” *The Minnesota Daily* (University of Minnesota), 12 Mar 2002, 4.

community events in early May 2002.¹⁴²⁶ He also answered questions following the Minneapolis premiere of the film titled *Mt. Graham Sacred Run*, a documentary on the contemporary relationship to *dzil nchaa si'an* and Nosie's struggles to bring attention to Mount Graham through various runs to the mountain.¹⁴²⁷ LaDuke also spoke about Mount Graham during visits to UMN in May. LaDuke and other activists, as well as academics, were able to link the University's involvement in the genetic manipulation and patenting of wild rice to its efforts to join the telescope project.¹⁴²⁸ Activists also pointed out the health disparities between American Indians and whites within the state of Minnesota.¹⁴²⁹ The day after Nosie returned to Arizona, the Metropolitan Urban Indian Affairs Council in Minneapolis, a group representing the largest urban Indian population in the U.S., passed a resolution against the telescopes.¹⁴³⁰

Some of the best criticisms came from UMN's Department of American Indian Studies, an academic unit that was never consulted before nor after UMN made its decision, but that early expressed its opposition to the university's involvement in the astrophysical development.¹⁴³¹ Their collected voice was so avoided throughout 2002 that in October 2003, 20 main faculty and staff personnel wrote a seven-page letter to the Faculty Senate to oppose UMN's involvement with UA. The letter addressed the failure by UMN administrators to acknowledge the department's concerns, and the ethical

¹⁴²⁶ Mount Graham Coalition, "University of Minnesota *OFF* Mount Graham," flyer, 10 May 2002.

¹⁴²⁷ Apaches for Cultural Preservation, *Mt. Graham Sacred Run* video (Tempe, AZ: Strictly Native Entertainment, 2002); "Video showing and discussion Premiere of 'Mount Graham Sacred Run,' a new documentary on the contemporary Apache relationship to *Dzil Nchaa Si An*, followed with a talk by Wendsler Nosie," flyer, 11 May 2002.

¹⁴²⁸ North Country Cooperative Grocery, "Winona LaDuke of White Earth Land Recovery Project," flyer, 7 May 2002; Jeremy Eiden, "LaDuke: U food research troubling," *The Minnesota Daily* (University of Minnesota), 5 May 2002; Sharon Schmickle, "Minnesota Indians want 'U' rice research to stop," *Star Tribune* (Minneapolis), 21 May 2002, B3; Dan Haugen, "Minnesota Indians cite concerns about U wild rice research," *The Minnesota Daily* (University of Minnesota), 28 May 2002; White Earth Land Recovery Project, "Stop the Bio-Piracy of Our Sacred Manoomin [wild rice]: Press Conference and Rally in Solidarity," 20 Mar 2002; White Earth Land Recovery Project, "Manoomin Akiing: Wild Rice Country," brochure, n.d.; Winona LaDuke, "Wild Rice: Maps, Genes & Patents," *The Circle* (Minneapolis), Oct 2001, 12-14.

¹⁴²⁹ Minnesota Department of Health, "Eliminating Disparities in the Health Status of American Indians in Minnesota," www.health.state.mn.us/ommh/amindian.html, accessed 30 Sep 2002.

¹⁴³⁰ Metropolitan Urban Indian Affairs Council, resolution, 14 May 2002. See Nancy Shoemaker, "Urban Indians and Ethnic Choices: American Indian Organizations in Minneapolis, 1920-1950," *Western Historical Quarterly*, XIX, no. 19 (1988): 431-447.

¹⁴³¹ Department of American Indian Studies to Yudof.

concerns of Apache people in Arizona. The department pointed out that Mount Graham is, in the Apache peoples' "epistemology, a conscious living presence understood as a healer, protector, and teacher. Mt. Graham to Apaches is as sacred as the Vatican is to Catholics, the Salt Lake Temple to Mormons, the Wailing Wall to Jews, and Mecca to Muslims."¹⁴³² The letter stated that the problem was not of science versus religion; rather, it was regarding "whose curiosity is being privileged" at UMN.¹⁴³³ The letter also pointed out how little UMN's decision makers, including administrators, faculty, and Regents knew not only about tribal sovereignty but also how "little understanding and even less respect [they had] for Apache Indian history and culture."¹⁴³⁴ As American Indian Studies noted, "By its actions and decisions, the University is investing in a project that brings harm to people on psychological, social, and spiritual grounds." UMN's decision, according to the authors of the letter, "has struck a very raw nerve in Indian Country."¹⁴³⁵

Opponents to UMN's efforts to join the project were successful in organizing, networking and creating coalitions with local organizations, and obtaining the support of local and national groups who opposed telescope development. Organizers from The Mount Graham Coalition, a large alliance of environmental and American Indian groups, lobbied, protested, obtained signatures on petitions, rallied, marched in parades, educated, participated in direct action, and attempted to influence Regents, UMN officials, and anyone who would listen. A local radio station, KFAI, ran several stories about Mount Graham throughout 2002, while a local cinema played the documentary film, *This Boy's Name Was Apache*.¹⁴³⁶ Activists lobbied the city council of Minneapolis, just as they had

¹⁴³² Department of American Indian Studies to Members of the Faculty Senate, 1. Especially important here is the work of Aileen Moreton-Robinson. For example, see Aileen Moreton-Robinson, "Whiteness, Epistemology and Indigenous Representation," in Aileen Moreton-Robinson, ed., *Whitening Race: Essays in Social and Cultural Criticism* (Canberra, Australia: Aboriginal Studies Press, 2004), 75-88; Aileen Moreton-Robinson, ed., *Sovereign Subjects: Indigenous Sovereignty Matters* (Crow's Nest, Australia: Allen & Unwin, 2007).

¹⁴³³ Department of American Indian Studies to Members of the Faculty Senate, 2.

¹⁴³⁴ Department of American Indian Studies to Members of the Faculty Senate, 3.

¹⁴³⁵ Department of American Indian Studies to Members of the Faculty Senate, 4.

¹⁴³⁶ See, for example, Joel T. Helfrich, Interview by Brett M. Stephan, KFAI Radio 90.3FM (Minneapolis)/106.7FM (St. Paul), Mar 2002; TC-IMC (Twin Cities Indymedia Center), "Indymedia Presents: His Name Was Apache [This Boy's Name Was Apache] & April IMC Newsreal" at the Dinkytown cinema, flyer, 16 Apr 2002. See Stéphane Goël, dir., *Le Garçon S'Appelait Apache* (This Boy's Name was Apache) (Climage and Ardèche Images Production, 1995).

with Pittsburgh and Florence, Italy, among others. Protestors carried large banners and passed out information packets and Mount Graham red squirrel stickers during the large annual May Day Parade in Minneapolis.¹⁴³⁷ As acts of resistance, protestors plastered stickers that exclaimed, “If your pecker was a small as mine, you’d need a big telescope too” and “Minnesota Off Mt. Graham,” on the doors of astronomers’ offices. They successfully painted a number of murals on panels inside the enclosed UMN pedestrian bridge that spans the Mississippi River.



Mural on University of Minnesota bridge spanning the Mississippi River, 2002.

Several major U.S. conservation organizations, including the Center for Biological Diversity, Defenders of Wildlife, Earthjustice, Endangered Species Coalition, National Audubon Society, Natural Resources Defense Council, and Sierra Club, wrote to Yudof and the President of UVA, John T. Casteen, III, in early May 2002 and urged them to not participate in the telescope project.¹⁴³⁸ Taken together, these organizations represented millions of U.S. citizens concerned about the ongoing environmental degradation on Mount Graham. On May 9, 2002, Yudof received over 70 letters from

¹⁴³⁷ See photos at The Mount Graham Coalition, www.mountgraham.org/MN/images/5-14/5-14.htm, accessed 17 May 2002.

¹⁴³⁸ Center for Biological Diversity, et. al., to John T. Casteen, III, and Mark Yudof, 6 May 2002; Mount Graham Coalition, “U.S. environmental groups ask Universities of Minnesota and Virginia not to participate in destructive Mt. Graham telescope project,” News Release, 7 May 2002.

community leaders, Regents faculty, and students that urged him to “Please respect the wishes of the Minnesota American Indian community, including the Minnesota Indian Affairs Council . . . , the UMN President’s American Indian Advisory Committee, the UMN Department of American Indian Studies, the UMN American Indian Student Cultural Center, American Indian Movement, and various Minnesota American Indian leaders.”¹⁴³⁹ Indeed, in Minnesota and elsewhere, the opposition to UMN’s investment was deep and uncompromising.



Mural on University of Minnesota bridge spanning the Mississippi River, 2002.

At a historic closed-door meeting with Yudof on May 10, 2002, Nosie and Metzger, as well as local American Indian leaders Bellecourt and Anderson, and Indian graduate student Jill Doerfler, voiced their opposition to Minnesota’s plans.¹⁴⁴⁰ They learned from Yudof that he wanted to “study” the issue more. In response, in the student-run newspaper, undergraduate Preston Selleck wrote, “This is an insult to the Apache

¹⁴³⁹ Various signatories to Mark Yudof, letter, 9 May 2002. See Joel T. Helfrich and Dwight Metzger, “Have a Heart President Yudof,” *The Minnesota Daily* (University of Minnesota), 5 May 2002; Joel T. Helfrich and Dwight Metzger, “Yudof must exemplify ethical leadership,” *The Minnesota Daily* (University of Minnesota), 9 May 2002; Tom Ford, “Yudof hears both sides in debate over telescope,” *The Minnesota Daily* (University of Minnesota), 10 May 2002.

¹⁴⁴⁰ Ford, “Yudof hears both sides in debate over telescope.”

people ... and is an affront to the University's commitment to its own community."¹⁴⁴¹ Selleck, like many students in the university community, felt that the answer was clear and that this issue had been studied enough. After he left the meeting, Yudof's lawyer said that UMN was working closely with UA who, after 13 years was trying to get support from the Apaches, was offering the San Carlos Apache Tribe "programming" in an effort to keep UMN and UVA on board.¹⁴⁴² These programs were at the center of the Board of Regents' decision to join the project months later, and became a larger, more disconcerting issue to the San Carlos Apache Tribe in the years that followed. As UA professor of law Robert Williams said about UA's efforts more than a decade earlier to create programs for the Apaches, "It's unfortunate that while the university [of Arizona] has been emphasizing outreach programs ... we have the Columbus telescope."¹⁴⁴³

Unbeknownst to many organizers against the university's involvement, during the Fall and Spring semesters of the 2001-2002 academic year, the Department of Astronomy faculty was making the rounds of various influential groups and committees on campus in an attempt to sell their proposal and gain the support of the academic community. The astronomers effectively turned the ear of a number of influential parties. Perhaps the most important ally of the astronomers, other than the Institute of Technology and its academic Dean, Davis, was the Research Committee of the UMN Faculty Senate. This example shows the lengths that the astronomers were willing to go to avoid any dialogue, discussion, and debate with people who opposed their plans and questioned the scientific merits of the astrophysical development project.

The Research Committee ultimately passed three "illegal" resolutions in 2002, 2003, and 2004 regarding the Mount Graham telescope project. This committee gathered information regarding the controversy surrounding the Mount Graham telescope project almost entirely from UMN astronomers without working with or talking to other faculty, other Faculty Senate groups, such as the Social Concerns Committee, or Apache visitors

¹⁴⁴¹ Preston Selleck, "Losing sacred ground," *The Minnesota Daily* (University of Minnesota), 28 May 2002, 2.

¹⁴⁴² Dwight Metzger to Dean Zimmerman, email, 15 May 2002.

¹⁴⁴³ Kim A. McDonald, "U. of Arizona and Apaches Embroiled in Dispute Over Columbus Telescope," *The Chronicle of Higher Education*, 18 Dec 1991.

to Minnesota from Arizona.¹⁴⁴⁴ As a result, the ways in which the Research Committee conducted an unbalanced assessment of the Mount Graham telescope project were obvious, but only in hindsight. Ultimately, after the UMN joined the telescope project, the committee supported an unquestioned and flawless view of “academic freedom” that resulted, in the eyes of many faculty at Minnesota, in the various ways in which the Research Committee is perceived.

Kuhi, Chair of the Department of Astronomy at the time, was a voting member of the Research Committee when he sought its support. The number of voting members on the Research Committee during the 2001-2002 academic year was 18. Therefore, a quorum was ten, or half of 18 plus one. What no faculty member, the committee’s chair, nor the Faculty Senate liaison, Gary Engstrand, noticed, was that the committee did not have enough voting members to have a quorum in May 2002 when the committee supposedly passed its first statement of support for the Department of Astronomy and its investment in the telescope project.¹⁴⁴⁵ To this day, the Research Committee’s motion regarding the Mount Graham telescope project is null and void.¹⁴⁴⁶

The members of the Research Committee who attended the May 13, 2002, meeting where the “statement on the Mount Graham telescope project” was crafted included seven voting members (including Kuhi) and three non-voting members.¹⁴⁴⁷ Ten voting and two non-voting members missed the meeting altogether. Of the 10 academics in the room, none pointed out the lack of quorum nor the concerns regarding the conflict of interest of one of its voting members. It is important to note that since Kuhi had a

¹⁴⁴⁴ Senate Social Concerns Committee, University of Minnesota, Meeting Minutes, 27 Oct 2003.

¹⁴⁴⁵ Senate Research Committee, University of Minnesota, “Statement on the Mt. Graham Telescope Project,” Minutes, 13 May 2002, <http://www1.umn.edu/usenate/research/02-05-13.html>. See also Senate Research Committee, University of Minnesota, Meeting Minutes, 9 Feb 2004; Senate Research Committee, University of Minnesota, Meeting Minutes, 23 Feb 2004; Senate Faculty Consultative Committee, University of Minnesota, Meeting Minutes, 26 Feb 2003.

¹⁴⁴⁶ Michael Nixon to author, “UM Research Cmte votes on Oct. 20, 2003 & May 13, 2002 Not Valid,” email, 23 Feb 2004; Michael Nixon to author, emails, 25 Feb 2004. See Senate Research Committee, University of Minnesota, “6. Mt. Graham Telescope Project,” in “Excerpt of the Minutes of the Oct. 28, 2003 Meeting of the Research Committee Agenda Item,” www1.umn.edu/usenate/research/03-10-20.html.

¹⁴⁴⁷ Senate Research Committee, Minutes, 13 May 2002. Secretaries for the UMN Senate and Senate committees clarified who attended the meeting and who was able to vote. See Renee Dempsey to author, “Social Concerns Business,” email, 25 Feb 2004; Becky Hippert to author, email, 25 Feb 2004.

“direct person interest” in the outcome of the telescope project, he should have recused himself from the vote. Kuhi was perhaps the largest advocate for the UMN’s involvement on Mount Graham. Regarding the question of Kuhi voting on the Research Committee “motion” at May 13, 2002, meeting, at which the “voting” that was reported in the minutes as “unanimous,” but no tally given (there is no record of a second or who, if anyone, actually seconded that “motion”), consider that according Robert’s Rules of Order, the parliamentary authority that UMN’s committees follow, “ABSTAINING ON VOTING ON A QUESTION OF DIRECT PERSONAL INTEREST. No member should vote on a question in which he has a direct personal or pecuniary interest not common to other members of the organization.”¹⁴⁴⁸ That vote, and a subsequent Research Committee vote on October 2003, was taken after having only met with the Department of Astronomy and not the other parties involved. The Research Committee never had access or requested access to all of the testimony that the Senate Social Concerns Committee heard five months earlier.

Furthermore, the Research Committee had never taken testimony from traditional Western Apaches, conservationists, or nationally-renowned anthropologists such as Basso and Elizabeth Brandt about this research project. Members of the Research Committee should have asked why the department that was most harmed by the telescope project, as well as the other committee that passed a position paper in March 2002—two months prior to the Research Committee’s pronouncement of support for the Astronomy Department—were not invited to attend its meetings and bring their concerns forward at an earlier point in the process.

Despite these setbacks, Mount Graham was front and center in the local and national news during 2002. One reason Mount Graham received attention was that in May 2002, Stephen Jay Gould, a noted professor of zoology and geology at Harvard University, died. Although his death was a loss to the academic and environmental communities, his actions in the early 1990s against the telescope project on Mount Graham were remembered by many communities in Massachusetts and Arizona. Gould

¹⁴⁴⁸ Henry M. Robert and William J. Evans, *Robert’s Rules of Order, Newly Revised*, 10th ed. (1876; Cambridge, MA: Perseus, 2000), 394, lines 15-19. Emphasis in original.

was a strong opponent of the telescope project who helped Harvard pull out. His words, especially his 1990 essay that highlighted Mount Graham, were used by activists who hoped that the presidents of UMN and UVA would back away from this unsound project.¹⁴⁴⁹

However, the best news for the mountain and the Apache people who have fought on behalf of Mount Graham for so many years, as well as the Apache people's best lobbying tool, came on April 30, 2002, and validated the arguments of many Apache medicine people and anthropological experts. The National Parks Service, Keeper of the National Register, determined that Mount Graham was declared eligible for listing in the National Register of Historic Places in the U.S. as a Western Apache Traditional Cultural Property (TCP).¹⁴⁵⁰ According to Michael Nixon, lawyer for the Mount Graham Coalition and the Apache Survival Coalition, "The significance ... vindicates or proves what the Apaches have been saying all along to the Forest Service and the UA, and that is that Mount Graham is a historic site, and furthermore, a very special kind of historic site."¹⁴⁵¹ As noted in the determination of eligibility study (DOE), the TCP included all of

¹⁴⁴⁹ Stephen Jay Gould, "The Golden Rule: A Proper Scale for Our Environmental Crisis," *Natural History* 1990; Michele F. Forman, "The Battle for Mt. Graham: Can Squirrels Survive The Harvard-Smithsonian Observatory Plan? (Gould Slams Squirrel Report, Claiming Misrepresentation)," *The Harvard Crimson*, 29 Oct 1990, 3; *Washington Post*, Obituary, "Noted author and scientist Stephen Jay Gould dies at 60," *Star Tribune* (Minneapolis), 21 May 2002, B6; Helfrich, "Stephen Jay Gould's 'Golden Rule' Revisited."

¹⁴⁵⁰ See Act of June 8, 1906 (34 Stat., 225), "for the preservation of American Antiquities," in U.S.D.A., *The National Forest Manual. General Laws, Parts of Laws, Decisions, and Opinions Applicable to the Creation, Administration, and Protection of National Forests* (Washington: Government Printing Office, 1913), 12; Thomas F. King, *Places that Count: Traditional Cultural Properties in Cultural Resource Management* (Walnut Creek, CA: AltaMira Press, 2003). See also, National Park Service (United States Department of Interior), "Determination of Eligibility Notification," 30 Apr 2002. The following documents are not for public release: Patricia M. Spoerl, "Mt. Graham (*Dzil nchaa si'an*): A Western Apache Traditional Cultural Property Or Determination of Eligibility for the National Register of Historic Places, Mt. Graham (*Dzil nchaa si'an*)," (Safford Ranger District, Coronado National Forest, Arizona), May 2001; Patricia M. Spoerl, "Supplement to Determination of Eligibility for Mt. Graham (*Dzil nchaa si'an*) Traditional Cultural Property," 15 March 2002.

¹⁴⁵¹ Thomas Stauffer, "Historic status set for Mount Graham," *Arizona Daily Star* (Tucson), 21 May 2002; Tom Jackson King, "Feds back Apaches on Mount Graham," *Eastern Arizona Courier*, vol. 114, no. 21, 22 May 2002; "Historic status for Mount Graham may help Apache fight observatory," *Indian Country Today*, 29 May 2002, D1, D2; "Mt. Graham group applauds designation," *San Carlos Apache Moccasin* (Globe, AZ), 7 Jun 2002; Associated Press, "Mount Graham ruled eligible for historic status protections," *News from Indian Country*, vol. XVI, no. 11 (mid Jun 2002). For criticism of the DOE, see "End Run," editorial, *Arizona Star Daily* (Tucson), 22 May 2002; "Mount Graham belongs to everyone," editorial, *Eastern Arizona Courier* (Safford, AZ), 29 May 2002. For an Apache response to the editorial, see also Franklin Stanley, "repeated untruths," letter to editor, *Arizona Daily Star* (Tucson), 2 Jun 2002.

the landform of Mount Graham that is within the Coronado National Forest (approximately 4000 feet in elevation level, or basically from the desert floor all the way up to the highest peak). In other words, the entire mountain, not just the fragile refugeum at the top of the mountain, was eligible for listing. What is more, although the mountain is not officially listed—and might never be due to concerns by Apaches that too much confidential information would be disclosed in the process—the DOE is just as good as the obtaining the listing.¹⁴⁵² The DOE was a major victory for the San Carlos and White Mountain Apache Tribes.

By the end of May 2002, a change in leadership at UMN signaled an end to many of the relationships that had slowly been forged during the previous six months. Mark Yudof officially accepted the job as chancellor of the University of Texas system, ironically the same academic institution that dumped the 5 meter optical infrared mirror on Mount Graham in the mid-1980s after campus students protested against it.¹⁴⁵³ The choice to make a precipitous departure and leave the ethical responsibility to his successor caught a number of organizers and Apaches off guard. Bruininks stepped in as Interim President, but brought an autocratic style of governance that included further delegation of responsibilities to other administrators.¹⁴⁵⁴ Afterwards, Bruininks would not meet with Apaches nor anyone else who sought to have Minnesota go elsewhere for its astronomical research.¹⁴⁵⁵ Davis, the Dean of the Institute of Technology and therefore head of UMN's astronomy department, led the search committee for a new provost.

¹⁴⁵² Michael V. Nixon to Dwight Metzger, email, 7 May 2002.

¹⁴⁵³ Any Phenix, "'U' President Will Take University of Texas Job," University News Service (University of Minnesota), 31 May 2002; Brad Unangst, "U president takes job as Texas chancellor," *The Minnesota Daily* (University of Minnesota), 3 Jun 2002; Robert Witzeman to author, email, 1 Jun 2002; Dylan Thomas, "Challenges await Yudof at chancellor position in Texas," *The Minnesota Daily* (University of Minnesota), 10 Jun 2002.

¹⁴⁵⁴ Brad Unangst, "Bruininks to serve as interim president," 3 Jun 2002; Elizabeth Putnam, "Board of Regents begins search for interim president," *The Minnesota Daily* (University of Minnesota), 3 Jun 2002; Brad Unangst, "Bruininks named interim president," *The Minnesota Daily* (University of Minnesota), 10 Jun 2002. For the best glimpse of what Bruininks is like behind the scene, see Bruininks to Gardebring, et al., email, n.d. (possibly Dec 2001).

¹⁴⁵⁵ Bruininks met with Dwight Metzger and Guy Lopez in December 2001 when he was still Provost. Metzger to Witzeman, email, 16 Jun 2002.

Davis had once told organizer Metzger that “he didn’t think any Apache could tell him anything that would make him see why telescopes and Apaches could not co-exist.”¹⁴⁵⁶

Shortly after Yudof announced his move, Germany’s Max Planck Radio Astronomy Institute refused to renew their Mount Graham radio telescope contract with UA and relocated elsewhere in June 2002.¹⁴⁵⁷ After ten years of unsuccessful astronomy, they stated: “We were handicapped because the quality of the weather was not first class.... We would like to cooperate in projects with more efficient telescopes.”¹⁴⁵⁸ To many organizers and critics of UA, these comments offered direct proof that Mount Graham is a poor location for astronomy. While Bruininks’ September 2002 letter to the Board of Regents stated that the partnership in the telescope project included Germany, Italy, and U.S. institutions, it failed to mention that the Vatican was one partner while the Max Planck Institute, another, pulled out of the project in June, thus abandoning their telescope on Mount Graham.¹⁴⁵⁹

By the end of the 2002 spring semester, many organizers and Apaches were beginning to question why UMN had gone against its own advisory boards and community members, why it sidestepped the growing scientific and culture evidence against the project, especially the mountain’s listing as a TCP and Max Planck’s decision, and why it allied itself with an academic institution better known for its circumvention of U.S. law than its attempts to conduct itself in an ethical, compassionate manner toward Apaches, the mountain, and the environment. These questions remained unanswered.

¹⁴⁵⁶ Dwight Metzger to Robert Witzeman, email, 16 Jun 2002.

¹⁴⁵⁷ Robert Witzeman to author, email, 12 Jun 2002.

¹⁴⁵⁸ Ruth Rogers, “Planck institute has quit telescope,” letter to editor, *San Carlos Apache Moccasin* (Globe, AZ), 17 Jul 2002; Tom Jackson King, “Scope loses partner: Germans cut level in radiotelescope; still back LBT,” *Eastern Arizona Courier* (Safford, AZ), 26 Jun 2002, 2A; The Southwest Center for Biological Diversity, “Max Planck Withdrawal from Mt. Graham ‘very likely,’” News Release, 13 Jan 2000.

¹⁴⁵⁹ Robert Bruininks to “concerned parties,” “The Large Binocular Telescope Project,” letter, 27 Sep 2002, (http://www1.umn.edu/urelate/newsservice/newsreleases/02_10bruininksltr.html), accessed Fall 2002. Bruininks’ staff sent the same form letter to many people. For example, see also Robert H. Bruininks to author, letter, 27 Sep 2002; Robert H. Bruininks to Sandra Rambler, letter, 27 Sep 2002;

While wildfires raged in Arizona, UMN administrators and astronomers marched forward to take their place atop the mountain.¹⁴⁶⁰ Opponents to the UMN's involvement in the telescope project were especially appalled at the secret way in which a delegation of university administrators went to Arizona in late June 2002 and then silently placed Mount Graham as an action item on the Board of Regents agenda in July.¹⁴⁶¹ Although administrators later claimed that was an accident, the four UMN officials who visited Arizona—Gardebring; Sue Hancock from the University's Office of Multicultural and Academic Affairs; Linda Ellinger from the Provost's Office; and Yvonne Novak—never consulted with either the Department of American Indian Studies or UMN President's American Indian Advisory Board about its plans nor its findings and recommendations.¹⁴⁶² The delegates lacked the credentials to work with and meet with Apaches. Three of the group members knew little about native issues. By contrast, a delegation sent a few months earlier by the UVA included both anthropologists and astronomers.¹⁴⁶³ Ironically, UMN's Novak was the chair of the President's American

¹⁴⁶⁰ Mitch Tobin, "Mt. Graham in Danger: Observatory sits atop tinderbox: Wildfire threat adds new angle to old debate," *Arizona Daily Star* (Tucson), 21 Jun 2002; David Wichner, "Fire prevention blame game is complex," *Arizona Daily Star* (Tucson), 25 Jun 2002; Jim Erickson, "Mount Graham Tragedy: A Forest No More," *Arizona Daily Star* (Tucson), 1 Oct 2000.

¹⁴⁶¹ Board of Regents, University of Minnesota, Committee Agendas, 11-12 Jul 2002, <http://www1.umn.edu/regents/agendas/2002/july/text/>. The second item of business for The Finance & Operations Committee's agenda on July 11 was, "Purchase of Goods & Services: Contract with Research Corporation for Large Binocular Telescope – Review/Action – R. Pfitzenreuter," but was later removed from the agenda.

¹⁴⁶² See Sandra Gardebring's comments to Regent Anthony Baraga's questions at the Board of Regents meeting on October 10, 2002: Finance and Operations Subcommittee, Board of Regents, University of Minnesota, official Board of Regents cassette tape recording, 10 Oct 2002 (some missing comments were taken from a handheld cassette recorder held by the author; transcribed by the author). Sue Hancock retired in late 2008. The Office of Multicultural and Academic Affairs is now called the Office of Equity and Diversity.

¹⁴⁶³ Fariss Samarrai, "Provost and faculty visit Arizona," *Inside UVA Online* (University of Virginia), 26 Apr-2 May 2002, www.virginia.edu/insideuva/2002/15/telescope.html, accessed 13 Nov 2003; Eric Swensen, "UVA authorities to visit Arizona telescope facility," *Charlottesville Progress* (Charlottesville, VA), 19 Apr 2002, B1, B2; Nikki Rohrbaugh, *Cavalier Daily* (University of Virginia), 19 Apr 2002; Ellen Contini-Morava, letter to editor, *Cavalier Daily* (University of Virginia), 20 Apr 2002; Sandra Rambler, "Apache have no hidden agenda on telescope," letter to editor, *The Daily Progress* (Charlottesville, VA), 10 Jun 2002; University of Virginia, "Report of the Ad-hoc Committee to Advise the Provost on the Mount Graham Telescope Project, Sept. 12, 2002," *Inside UVA Online*, http://www.virginia.edu/insideuva/2002/28/adhoc_rept.html, accessed 13 Jan 2009; University of Virginia, "large binocular telescope LBT group offers compromise," *Inside UVA Online*, 11-24 Oct 2002, www.virginia.edu/insideuva/2002/28/lbt_group.html, accessed 21 Nov 2003. See also, Wendler

Indian Advisory Board, but none of her board members were told that she was heading to Arizona. In fact, many of them wondered who paid for her trip to Arizona, why they were not told about her trip, and what she learned while in Arizona. Most importantly, they wondered why she went at all. After all, the American Indian Advisory Board, which Novak chaired at the time, had recommended that UMN not buy into the project. Gardebring used Novak's Indian presence to legitimize the delegation's trip to Arizona and to support her recommendation to the Board of Regents.¹⁴⁶⁴

The officials who visited Arizona spent three days meeting with UA, but only three hours on June 27 meeting with traditional San Carlos Apaches. Apaches Ruth Rogers, Sandra Rambler, Kathy Kitcheyan, John Wesley, Franklin Stanley, Ramon Riley, Raleigh Thompson, Raymond Stanley, Cassadore Davis, Erwin Rope, lawyer Michael Nixon, and anthropologist Elizabeth Brandt, explained to the delegation that the mountain is sacred, that UA has run roughshod over the Apache people and the mountain, that the mountain is a traditional cultural property to the Apaches, and that Max Planck and other institutions left because of an inability to conduct first-class science on the mountain.¹⁴⁶⁵ The delegation did not even bother to visit Fort Apache Indian Reservation, likely because of the White Mountain Apache Tribe's uncompromising opposition to the telescope. UMN learned from UVA's delegation that stopping there was unnecessary. Virginia was told by the White Mountain Apache Tribe that they should go elsewhere to study the stars. When challenged on this point in October 2002, Gardebring said that there was simply "not enough time" to visit Fort Apache.¹⁴⁶⁶ In fact, the Virginia delegation was told in no uncertain terms that the White Mountain Apache Tribe would

Nosie, Sr., "Clear examples of abuse," in University Forum: "Should the University support the Mt. Graham telescope project?" *The Cavalier Daily* (University of Virginia), 14 Feb 2002. For a solid critique of UVA's role in astrophysical development on Mount Graham, see Anthony Guy Lopez, "Great Promise: American Indian nations and Virginia," originally published *UVA Online*, Dec 2008. (*UVA Online* initially printed this essay, which critiques UVA's efforts to increase American Indian enrollment, but then UVA Arts and Sciences Dean, Meredith Woo, removed the article from the website.)

¹⁴⁶⁴ See Mount Graham Coalition, "U. of Virginia Delegation hears Western Apache objections to Arizona telescope project," News Release, 17 Apr 2002; *San Carlos Apache Moccasin* (Globe, AZ), 17 Apr 2002.

¹⁴⁶⁵ See "ASC—UMN Meeting in San Carlos: Education Center 6/27/02, 3 hours 43 min. total," 2 VHS video cassettes, 27 Jun 2002. See Mount Graham Coalition, "Apache Meeting with University of Minnesota Delegation, June 27, 2002," 25 Sep 2002, 1-6.

¹⁴⁶⁶ Finance and Operations Subcommittee, official Board of Regents cassette tape recording, 10 Oct 2002.

not discuss UVA's participation on any level. During its April 2002 visits to the San Carlos and White Mountain Apache Reservations, UVA "heard first-hand the strong protests and objections of the Apache people."¹⁴⁶⁷ No official report was ever made from UMN's publicly financed expedition. While UMN's Gardebring paid lip service to investigating the issues, her actions reflected a predetermined objective of buying into the project with minimal public relations fallout.

Throughout the summer months of 2002, Apaches and environmental activists visited Minnesota. Letters, articles, editorials, and opinion columns appeared in local, national, and student newspapers regarding UMN's plans.¹⁴⁶⁸ Meanwhile, environmental activists in Arizona were trying to put out fires with the National Forest Service regarding its proposal to thin 22.7 acres of the forest around the telescopes to protect UA's investment from forest fires.¹⁴⁶⁹ And Apaches were dealing with a historical problem: racist white Arizonians.¹⁴⁷⁰ When the wildfires tore through a great amount of forest in northern Arizona in July 2002, businesses such as Denny's posted signs that stated, "Apaches will not be served here," Sonic and KFC restaurants refused service to Apaches, and white locals blamed all Apaches for the largest fire in state history that was

¹⁴⁶⁷ Mt. Graham Coalition, "U. of Virginia Delegation hears Western Apache objections to Arizona telescope project," News Release, 17 Apr 2002.

¹⁴⁶⁸ Sara Hebel, "On a Mountaintop, a Fight Between Science and Religion: Universities weigh support for a telescope project on land American Indians consider sacred," *The Chronicle of Higher Education*, 28 June 2002, A21-22.

¹⁴⁶⁹ Patricia Spoerl (Safford Ranger District, Coronado National Forest), "Proposed Fuels Reduction Activities on Mt. Graham," 27 Jun 2002; Robin Silver (Center for Biological Diversity) to George Asmus (District Ranger, Safford Ranger District), letter, 29 Jun 2002, 1-6; John M. McGee (Forest Supervisor, U.S.D.A. Forest Service, Safford Ranger District, Coronado National Forest), "Decision Memorandum: Mt. Graham International Observatory Fire Hazard/Risk Reduction," 2 Jul 2002; Bob Witzeman (Maricopa Audubon Society) to Richard Asmus (Safford Ranger District) and John M. McGee (Forest Supervisor, Coronado National Forest), letter, 22 Jul 2002; Sky Island Alliance, "Mt. Graham International Observatory Proposed Thinning Area," map, Summer 2002; Tom Jackson King, "Hull back Graham logging: Supports cutting of trees killed by fire, insects," *Eastern Arizona Courier* (Safford), vol. 114, no. 32, 7 Aug 2002, 1A, 16A; Bob Witzeman to author, emails, 28 Oct 2003, 29 Oct 2003.

¹⁴⁷⁰ O. Ricardo Pimentel, "It's only a name—but it's wrong: 'Squaw' is an offensive term to Native Americans, so why is it so hard to get rid of?" *The Arizona Republic* (Phoenix), 4 Mar 2003, B11; Stephen W. Baum, "No offense is intended," letter to editor, *The Arizona Republic* (Phoenix), 14 Mar 2003; Ola Cassadore Davis, "Arizona's bias is showing," letter to editor, *The Arizona Republic* (Phoenix), 22 Mar 2003.

started by a former White Mountain Apache firefighter who was out of work.¹⁴⁷¹

Although the UMN administration had not confirmed its support of the telescope project investment, many Apaches and their allies felt that the writing was on the wall. A form letter sent to many recipients from Bruininks' office in late September confirmed the university's intent to devise a plan that administrators felt would somehow be acceptable to the people who have fought so long and hard for the protection of Mount Graham.¹⁴⁷²

What is clear from Bruininks' letter is that lies and misrepresentations ruled. Bruininks' letter stated that the university consulted with a whole host of groups—the Department of American Indian Studies, the President's American Indian Advisory Board, and the Senate Social Concerns Committee, to name but a few. What the letter fails to note is that all of these groups asked the University not to buy into the project. In the case of the Department of American Indian Studies, it is clear that they were never “consulted.” In fact, the Department of American Indian Studies was never contacted. UMN's involvement with the telescope project goes against everything for which the Department of American Indian Studies stands.¹⁴⁷³

The letter written for Interim President Bruininks' signature imposed nothing short of a bribery program.¹⁴⁷⁴ It dismissed the deeply injured and irreconcilable

¹⁴⁷¹ See Martin Taylor (Center for Biological Diversity) to Robert Witzeman, “White racism metastatizing [sic.] in Show Low,” email, 5 Jul 2002. Comments by white Arizonans in a battle with Apaches over a historical road marker have many parallels. See “Hostile Indians' sign down; Camp Verde on warpath,” *Tucson Citizen*, 19 Sep 2003.

¹⁴⁷² Bruininks to “concerned parties,” “The Large Binocular Telescope Project.”

¹⁴⁷³ Dwight Metzger to author, email, 20 May 2002.

¹⁴⁷⁴ See Bruininks to “concerned parties,” 27 Sep 2002. See UA Indigenous Law and Policy Program, Briefing Book, “San Carlos Apache Tribal Council Presentation, April 13, 2004”; UA, University of Minnesota, and the University of Virginia, “Northern Tribes Initiative—San Carlos Outreach Program 2003, Quarterly Report—October 1, 2003,” 1-6; UA, University of Minnesota, and the University of Virginia, “The Universities of Arizona, Minnesota and Virginia Educational Outreach Plan for the San Carlos Apache Tribe and Annual Operating Budget (July 1, 2003-June 30, 2004),” [originally called the Tri-University Partnership], 1-9. See Astronomy Department, Senate Research Committee, “Information Packet from Astronomy Department, Senate Research Committee,” 9 Feb 2004; Kathleen Wesley-Kitcheyan to Leonard V. Kuhl [Kuhi], letter, 27 Oct 2003.

When the San Carlos Apache Tribe had an opportunity to review the proposals, its council rejected them immediately. See John Kamin, “San Carlos rejects UA proposal,” *Eastern Arizona Courier* (Safford, AZ), 18 April 2004, 1, 7A; Kathy Wesley-Kitcheyan, “Chairwoman's Report: Howard Suit Settled,” *San Carlos Apache Moccasin* (Globe, AZ), 21 Apr 2004; Sandra Rambler, “Traditionally Speaking” column, *The Apache Moccasin* (Globe, AZ), 28 Apr 2004; Brenda Norrell, “Apache reject money and bring honor to Mount Graham,” *Indian Country Today*, 26 May 2004, B1, B3; Dwight

relationship that the Apaches have with UA. Stated Bruininks in the letter: “In addition, the University is requesting that the UA appoint a cultural liaison—it is our hopes that that liaison would be a Native person—to facilitate access by traditional Apaches on Mount Graham for cultural and religious activities.” It is worth mentioning that the Native “cultural liaison,” a well-known professor of law selected by UA named Robert Williams, stated via email that he is the “cultural liaison, whatever that means.”¹⁴⁷⁵ Such callous indifference was hurtful to the Apache people who have too long been on the receiving end of slaps by Arizona officials.¹⁴⁷⁶

Minnesota suggested that a cultural advisory committee be established between UA and the Apaches, while the university completely disregarded the position of its own President’s American Indian Advisory Board, the Senate Social Concerns Committee, and American Indian Studies Department, as well as various environmental groups and all federally recognized tribes in the state of Minnesota. The University’s involvement with the telescope project went against everything for which those organizations stand.

UMN officials, including the presidents, provosts, faculty, and Regents, created programs as a way to justify their joining the project. UMN took its cues from UA, UVA, and the UA-funded Booz, Allen, & Hamilton report that suggested the ways UA could buy off Apache people, make outcasts of traditional Apaches who did not agree with the astrophysical development, and offer economic inducements that were not to be publically linked with Mount Graham, if UA wanted to stay on the mountain.¹⁴⁷⁷ In fact, Jan Morlock of UMN’s Office of University Relations was well versed in the Booz-Allen strategy and indicated that UMN was looking to find a way that the Apaches can

Metzger and Joel T. Helfrich, “U ignores spiritual aspects of telescope,” *The Minnesota Daily*, 7 May 2004, 11.

¹⁴⁷⁵ Robert Williams to anonymous, email, n.d. (possibly 2004).

¹⁴⁷⁶ Winona LaDuke, lecture, Southwest American Indian Law Association regional symposium, University of Arizona, 25 Mar 2005; Dwight Metzger to author, “Winona LaDuke Blasts UA ‘Apache Summit,’” email, 27 Mar 2005.

¹⁴⁷⁷ Booz-Allen & Hamilton, Inc., final report, “University of Arizona: Mount Graham Observatory Review Issues,” Tucson, Arizona, 23 Oct 1991, 1-42; University of Virginia, “Report of the Ad-hoc Committee to Advise the Provost on the Mount Graham Telescope Project”; University of Virginia, “large binocular telescope LBT group offers compromise.”

accommodate UMN's being on the mountain.¹⁴⁷⁸ UA continued to turn to former San Carlos Tribal Chairman Harrison Talgo to portray to UMN and UVA that Apaches were divided regarding Mount Graham and that the opponents' claims were not valid.¹⁴⁷⁹ While in office during the early 1990s, Talgo opposed astrophysical development on Mount Graham. He later became a crew foreman for telescope construction and consultant for the telescopes, and changed his stance regarding the sacredness of Mount Graham. The strategies used by UA—plant doubts, spread rumors, downplay litigation, protests, and opposition, marginalize Apaches and environmentalists, work with and promote Apaches who agreed with astrophysical development, and offer money and programs to Apaches—were also employed by UMN.¹⁴⁸⁰ All of the plans, programs, and economic incentives that UA, UMN, and UVA established were created without Apache input and consent, and were eventually rejected by the San Carlos Apache Tribal Council as bribes.¹⁴⁸¹

When a traditional Apache woman named Rambler came to Minnesota in September 2002 to respond to the plan, crafted in secret negotiations between the Universities of Arizona, Minnesota, and Virginia, she was denied a meeting with acting president Bruininks. The person whom she did meet, Gardebring, was given official tribal letters condemning UMN's plan as a buy-off.¹⁴⁸² These letters were promised to be

¹⁴⁷⁸ Dwight Metzger to author, email 20 May 2002.

¹⁴⁷⁹ Harrison Talgo, letter to editor, *Tip Magazine* (Berlin, Germany), no. 20, Nov 1995; Bernice Harney, letter to editor, *Tip Magazine* (Berlin, Germany), no. 22, 1995; Harrison Talgo, "Apache Tribe did not oppose Mount Graham telescope," letter to editor, *Canton Repository*, 10 Feb 1996; Gretchen Sutton, "Apache Tribe opinion splits on telescope," *The Lantern* (Ohio State University), 14 Nov 1996; David Lore, "New tribal council may swing telescope support: OSU dean keeping focus on election," *The Columbus Dispatch*, 1 Dec 1996; Gretchen Sutton, "Telescope project blurred by sacred land," *The Lantern* (Ohio State University), 10 Feb 1997; Harrison Talgo, "Apaches divided on Mt. Graham issue," *The Lantern* (Ohio State University), 14 Feb 1997; David Hodges, "Harrison Talgo finds offense with quotes attributed to myself," *The Lantern* (Ohio State University), 7 Mar 1997; Gretchen Sutton, "Opponents to Ohio State's involvement in a controversial telescope," *The Lantern* (Ohio State University), 30 Apr 1997; Steve Lipsher, "Arizona's Star Wars: Business, not science, was at the heart of a battle to build an observatory near Tucson," *The Denver Post*, 18 May 1997. Talgo wrote to the Minnesota Indian Affairs Council in January 2002.

¹⁴⁸⁰ See Tamotsu Shibutani, *Improvised News: The Sociological Study of Rumor* (Indianapolis: Irvington Publishers, 1966).

¹⁴⁸¹ See Robert E. Howard (Vice-Chairman, San Carlos Apache Tribe) to author, email, 6 Feb 2004.

¹⁴⁸² See Sandra Rambler to Robert H. Bruininks, letter, 26 Sep 2002, as well as a packet of letters from San Carlos Tribal Council members Robert Olivar and Shirley Titla.

delivered to the President, and yet twenty minutes later, Gardebring announced to the media a recommendation to move forward with the investment.¹⁴⁸³ When organizer Metzger commented to the press that night, “To withhold that information when I asked her (at the meeting) was at the very least deceptive, but at the very worst lying,” Gardebring called him on his cell phone and claimed ignorance.¹⁴⁸⁴

In the days leading up to UMN’s announcement and in preparation for the Regents meeting in October, a flurry of emails raced between UMN’s point person, Gardebring, and other administrators. In a last minute email that Gardebring wrote to Kuhi the day before UMN announced it would join the project, she stated, “The issue is whether there are alternatives to the Mt. Graham site—some of the Regents are skeptical of the information we have provided them on this issue. I have given all of them the information that you gave me, but it has not fully satisfied them.”¹⁴⁸⁵ In a lengthy email responding to Gardebring’s questions, Kuhi explained how time on telescopes was allocated, mentioned the time available on various national and international private and government-funded telescopes, made arguments for larger telescopes, specifically the large binocular telescope on Mount Graham, and insisted that UMN establish a “first-rate, not second-rate” astronomy program. He alluded to a meeting the following day with President Bruininks that he hoped to attend.¹⁴⁸⁶ By the time Rambler met with the vice president, the meeting with Bruininks, Gardebring, and Institute of Technology representatives had sealed the fate of the project and cemented in place UMN’s decision to join the project.

Meanwhile, the opponents of the telescope project continued to put pressure on various parties involved with the university’s impending decision. A day after the

¹⁴⁸³ Brad Unangst, “U official to recommend buying time at telescope,” *The Minnesota Daily* (University of Minnesota), 25 Sep 2002, 1, 15; Mary Jane Smetanka, “‘U’ backs telescope project: An Arizona project’s scientific value outweighs protesters’ arguments, a University of Minnesota official has concluded,” *Star Tribune* (Minneapolis), 25 Sep 2002, B1, B3; “Morass on the Mountain,” editorial, *The Minnesota Daily* (University of Minnesota), 26 Sep 2002, 6; Brad Unangst, “Bruininks to recommend contract with Ariz. telescope,” *The Minnesota Daily* (University of Minnesota), 30 Sep 2002; Brad Unangst, “U of M president to recommend contract with Ariz. telescope,” *The Native American Press/Ojibwe News*, 4 Oct 2002, 1, 3.

¹⁴⁸⁴ Unangst, “Telescope project spurs protest outside KSTP.”

¹⁴⁸⁵ Sandra Gardebring to Len Kuhi, email, 24 Sep 2002.

¹⁴⁸⁶ Len Kuhi to Sandra Gardebring, “Re: Docket materials for the LBT matter,” email, 24 Sep 2002.

university made its official announcement and under cover of darkness in the early morning, several protestors scaled a tall KSTP broadcast tower outside of Hubbard Broadcasting in St. Paul to unfurl a “60-foot bright yellow vinyl banner that read, ‘U [of] M/Hubbard: Mount Graham is Sacred: No \$ For Desecration.’”¹⁴⁸⁷ Their actions were followed later that day by protests from a local American Indian high school. Former UMN American Indian Student Association President Carolyn Anderson said, “I’m ashamed that I’m a part of a university that is supporting this telescope project that does not have any respect for native traditions and beliefs.”¹⁴⁸⁸ All of these actions corresponded with U.S. House of Representatives hearings on the protection of sacred land, including Mount Graham, and a California bill to protect sacred sites.¹⁴⁸⁹ Another potential telescope partner, UVA, joined the project, despite unanimous opposition from the official state of Virginia Council of Indians, an organization that represents the eight Indian tribes in the state.¹⁴⁹⁰ Meanwhile, in Minneapolis, the world’s largest student-produced and student-managed newspaper, *The Minnesota Daily*, wrote editorials that requested UMN drop the large binocular telescope project.¹⁴⁹¹ The editors of the paper

¹⁴⁸⁷ Unangst, “Telescope project spurs protest outside KSTP”; A photograph of the banner is at: Unangst, “U of M president to recommend contract with Ariz. Telescope.”

¹⁴⁸⁸ Unangst, “Telescope project spurs protest outside KSTP,” 5.

¹⁴⁸⁹ Lee Davidson, “Tribes seek upgrade in land protection: Martin’s Cove sale’s foes fear a precedent,” <http://deseretnews.com/dn/view/0,1249,405009665,00.html?>, accessed 7 Jun 2002; Unangst, “Telescope project spurs protest outside KSTP”; “American Indians push for California bill to preserve sacred sites,” *The Circle* (Minneapolis), Oct 2002, 4; Ryan Pearson, Associated Press, “Tribes aim to form plan to guard sacred lands,” *The Arizona Republic* (Phoenix), 13 Dec 2002, A33; Sacred Place Protection Program, Association on American Indian Affairs, “Consultation Protocols for Protecting Native American Sacred Places,” preliminary draft, Rockville, MD, 28 Oct 2003, 1-37.

¹⁴⁹⁰ Virginia Council on Indians, State of Virginia, resolution, 21 May 2002; Bill Baskerville, Associated Press, “Va. Indians protest telescope project: Letter is sent to U.Va. Chief,” *Times Dispatch*, 27 Jun 2002; Sandra Rambler, “Traditionally Speaking,” *San Carlos Apache Moccasin* (Globe, AZ), 17 Jul 2002. See also, Eric Swensen, “Apache leaders oppose UVa telescope project in Ariz.,” *The Daily Progress* (Charlottesville, VA), 27 Jan 2002. For pro-telescope viewpoints from Virginia, see Savikoff, “Unjustly magnified problems”; Managan, “Protect telescope project from politics”; Susan L. Turley, “Critics’ view of telescope,” letter to editor, *Charlottesville Daily Progress*, 27 May 2002. For more regarding on-campus hate crimes at UVA, see Daren Briscoe and Evan Thomas, “Hate on Campus: The University of Virginia rallies against racism,” *Newsweek*, 28 Nov 2005, 41.

¹⁴⁹¹ “University should withdraw Mount Graham support,” 6; “Morass on the mountain,” 6; “Telescope: U’s position dicey,” editorial, *The Minnesota Daily* (University of Minnesota), 21 Apr 2004, 16.

wrote, “In going forward, the University would be aligning itself with a contentious project that has come to symbolize the desecration of a native culture.”¹⁴⁹²



U of M/Hubbard: Mount Graham is Sacred: No \$ For Desecration

Michael O’Keefe, a friend of Bellecourt and a UMN Regent, stepped down from the Board of Regents just days before the Regents’ vote. Citing a conflict of interest, he

¹⁴⁹² “Morass on the mountain,” 6.

vacated a post he had held since 1996.¹⁴⁹³ His departure was another large step backwards to the opposition, given his willingness to speak with activists, his familiarity with the Mount Graham issue after having attended the Apache presentation to the state's Indian Affairs Council meeting, and his important role as chair of the Regents' Finance Committee—the first stop for the UMN before the entire Board of Regents would vote for the telescopes.¹⁴⁹⁴ He was the only Regent who would correspond and communicate with Apaches and environmentalists who hoped to have the Board of Regents hear their concerns.



Stickers distributed on UMN's campus.

During the beginning of the Fall Semester in 2002, opposition to the U's involvement in the telescope project took center stage on campus. At an event titled

¹⁴⁹³ Brad Unangst, "U regent resigns citing possible conflict of interest," *The Minnesota Daily* (University of Minnesota), 9 Oct 2002

¹⁴⁹⁴ Michael O'Keefe to author, emails, 8 May 2002; Dwight Metzger to author, "may board of regents' meeting," email, 20 Mar 2002.

“Spirituality, Healing, and the Struggle to Protect Mount Graham,” local American Indians took the stage with Apaches Thompson and Cassadore Davis to discuss the dangers of UMN’s plans to join the astrophysical development on Mount Graham.¹⁴⁹⁵ *The Minnesota Daily* printed at least three full-page advertisements against the telescopes.¹⁴⁹⁶ After nearly a year of protests and a week before the university made its decision, native leaders from Minnesota, working with environmental activists, erected a number of tipis outside of the university’s Board of Regents headquarters. They lit a sacred fire, held daily prayers, and welcomed a delegation of 11 Western Apache Indians, including Mountain Spirit dancers, Miss White Mountain Apache Tribal Queen, and a holy man, as well as Apaches Nosie and Rambler.¹⁴⁹⁷ Michael Nixon, lawyer for The Mount Graham Coalition and the Apache Survival Coalition, William “Sky” Crosby, Witzeman, Metzger, and other allies arrived in Minneapolis to join the fight and help with the rallies, communications, and organizing. On Wednesday, October 9, 2002, a day before the Board’s decision, anthropologist Brandt, a noted linguist from Arizona State University and an outspoken critic of the telescope project, arrived on campus to offer a lecture on Apache history and culture, and to answer questions regarding UA’s actions.¹⁴⁹⁸ Her talk was one of a series of events scheduled to protest the interim president’s recommendation to enter into a contract with UA.

The following day, October 10, 2002, the UMN Board of Regents was witness to activism on a level that it had not encountered since UMN proposed changes to its tenure

¹⁴⁹⁵ “Spirituality, Healing, and the Struggle to Protect Mount Graham,” flyer, 10 Sep 2002.

¹⁴⁹⁶ “People are speaking out against the Mount Graham telescopes,” *The Minnesota Daily* (University of Minnesota), 6 Sep 2002, 5; “Protect Mount Graham! Sacred Apache Mountain – priceless cradle of evolution,” *The Minnesota Daily* (University of Minnesota), 10 Sep 2002, 16; “Divide and Conquer,” *The Minnesota Daily* (University of Minnesota), 18 Sep 2002, 20.

¹⁴⁹⁷ “Mountain Spirit Dance an Act of Protest,” *St. Paul Pioneer Press*, 9 Oct 2002; Locke, “To the Point: Telescope Project: where religion, science collide.” For more on the role of beauty pageants in Indian country, see: Ingo W. Schröder, “Miss White Mountain Apache Tribal Queen and local modernity in the Native American Southwest,” *Zeitschrift für Ethnologie*, 127, no. 2 (2002), 187-202.

¹⁴⁹⁸ Elizabeth “Betsy” Brandt, public lecture, “The Struggle for Mount Graham: Ethics and Religion vs. Science,” 9 Oct 2002. See also Elizabeth A. Brandt, “The Fight for *dzil ncha si’an*, Mount Graham: Apaches and Astrophysical Development in Arizona,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), 19, no. 4 (Winter 1996), 50-57.

code in 1996-1997.¹⁴⁹⁹ During a standing-room-only Finance and Operations Committee meeting of the UMN Board of Regents, Provost Maziar read President Bruininks's letter to the Regents. It is notable that this format, as far as the Regents are concerned, is an acceptable way to present a proposal to the Board of Regents. Yet this arrangement quashes alternative viewpoints and any dialogue that should occur. The people who filled the Regents' meeting room certainly remembered Regent H. Bryan Neel's comments to the Apache elders, dancers, and medicine people in the room: "I want to be sure that we have some school programs, tours, and other education approaches which you've heard about today. I'm absolutely confident that once all of you are engaged in the process in one way or another, you'll develop an interest in it and come to the realization that exploration of the heavens in the framework of a God, is part of our life blood, all of us." Continued Neel, "it may be a jump of faith to realize that we are all going to be beneficiaries of the discoveries that are made with this telescope, and I hope that even though you feel bad about it and you feel that maybe you've been shortchanged, that you will keep just a crack open in your mind and watch it and go there and visit it and see what it all means. You'll be fascinated, I think, and *your people are going to like it*. It's just a major change, and those are hard to cope with." After a great amount of laughter from the audience, Neel said, "Major change is hard to cope with."¹⁵⁰⁰

On the tail end of Neel's words, Sister Rita McDonald of the Sisters of St. Joseph of Carondelet in St. Paul, who had turned 80 years old that day and was in the audience, stood to address Regent Neel. While the chair of the committee, Regent Anthony Baraga, gavelled, McDonald said to Regent Neel, "My dear man ... it's real hard to sit back here and hear you ... say, 'you know, you'll be okay....'" While Baraga gavelled, McDonald attempted to get her points across to the Regents: "I feel that we have a right to speak our hearts. I know that I cannot be quiet." Her actions were enough to sway Baraga to change the direction of the meeting. In fact, no public comment would have been allowed during

¹⁴⁹⁹ George R. Spangler, "Rookery Blues Too? An open letter to the university community, by G. Spangler, on the occasion of a proposed revision to the tenure code, September, 1996," www.fw.umn.edu/Biochr/GRS_home/Essays/AcadFree.html, accessed 5 Mar 2004.

¹⁵⁰⁰ Finance and Operations Subcommittee, official Board of Regents cassette tape recording, 10 Oct 2002. Emphasis added.

the committee meeting if Baraga had not broken the rules, the day before the entire Board of Regents voted to approve the project. Baraga's actions in response to public outcry allowed four minutes for the Apaches to speak. It was enough time to convince him to reverse his position, printed that morning in the student newspaper ("I'm leaning to vote with the university.") and personally vote to reject the telescope contract.¹⁵⁰¹ After San Carlos Apaches Rambler and Nosie conveyed an easy to understand message—that to Apache people, religion should never be compromised and that they have no other mountain to turn to—the audience cheered. Baraga cried as he stated his opposition to the project.¹⁵⁰² Only five Regents heard testimony on Thursday. They split the vote 3-2 to tentatively approve the project.¹⁵⁰³ Nosie said, "This will be a black eye for the school if they enter into it."¹⁵⁰⁴ The next day's vote of the entire Board of Regents to move forward was secured without public input and with any chance for discussion quashed.

Because of concerns raised during the committee meeting, UMN secured a letter that same day from UA President Peter Likins to appease the Regents. Despite UA's assurances to work with Apaches and support "the access of traditional Apaches to Mount Graham for religious purposes"—an issue addressed by both Apaches Rambler and Nosie who stated that "access" was a non-issue—some of the Regents still did not agree with UMN's plans.¹⁵⁰⁵ Regent Lakeesha Ransom found her own way to voice her opposition: the UN Commission on Human Rights. "[T]he United Nations Commission on Human Rights offered an opinion, and they're opposed to the telescope project. And I have a difficult time coming up against that organization," stated Ransom.¹⁵⁰⁶ On Friday,

¹⁵⁰¹ Brad Unangst, "Regents to vote on capital budget, telescope contract," *The Minnesota Daily* (University of Minnesota), 10 Oct 2002.

¹⁵⁰² Mary Jane Smetanka, "Regents guarded on telescope vote: After listening to tribal members, the committee wants the host school to set up a grievance procedure," *Star Tribune* (Minneapolis), 11 Oct 2002.

¹⁵⁰³ Smetanka, "Regents guarded on telescope vote"; Kristina Torres, "U panel votes to buy into telescope: Full Board of Regents likely to concur today," *St. Paul Pioneer Press*, 11 Oct 2002; Brad Unangst, "Key panel recommends telescope contract," *The Minnesota Daily* (University of Minnesota), 11 Oct 2002.

¹⁵⁰⁴ Unangst, "Key panel recommends telescope contract."

¹⁵⁰⁵ Peter Likins to Robert H. Bruininks, "Re: Mount Graham International Observatory," letter, 10 Oct 2002; Brad Unangst, "Telescope deal approved amid angry protests," *The Minnesota Daily* (University of Minnesota), 14 Oct 2002.

¹⁵⁰⁶ Finance and Operations Subcommittee, official Board of Regents cassette tape recording, 10 Oct 2002. Amor, "Special Rapporteur Report." See "Section II.C. Situation for Native Americans." Also see,

Regent Baraga told the other Regents that they should listen to their hearts and make ethical choices. Nearly in tears, Baraga told the others that he could not support the telescopes. Stated Baraga, “If it’s not right, it’s not right. I can’t personally support this.”¹⁵⁰⁷ In one quick vote, UMN Regents showed clearly how they treat American Indians, what they think about the environment, and where they stand with regards to the U.S. law.

The Regents in the meeting who supported the project did so by stating that they were only doing so on the “condition” that UA and its Research Corporation “establish a binding, independent and fair grievance procedure” for the Apaches.¹⁵⁰⁸ The “mitigation agreement” was made between UMN and UA, not between UMN and the San Carlos and White Mountain Apache Tribes. And the agreements and acknowledgements made by UA President Likins in his letter were made in secret, at the last minute on October 10, just hours before the entire board voted to join the project.¹⁵⁰⁹ Likins never disclosed to UMN that at the time of the deliberations, Apache people were still actively lobbying UA to have the telescopes removed from Mount Graham, that environmental activists had destroyed UA power line equipment to the observatory and had protested at UA’s Mirror Lab, and that lawsuits were still making their way through the courts.¹⁵¹⁰ Apaches and

Associated Press, “Report calls for protection of sacred sites”; “Big Mountain elders address UN rep”; Shaffer, “Envoy hears from tribes on persecution”; Associated Press, “U.S. must do more to protect Indian culture, U.N. visitor says”; Associated Press, “U.N.: Protect Indian Sites in U.S.”; Zapata, “Statement at Working Group on Draft Declaration on behalf of Mount Graham”; Davis, “Statement and Petition to the United Nations To Protect the Indian Sacred Site”; Jake, “Statements from Dineh and Hopi Resistors”; Watchman, address to the United Nations Human Rights Commission Fifty-seventh Session; Barbadoro, declaration. See also, U.S. Human Rights Network CERD Working Group on Indigenous Peoples, “Response to the Periodic Report of the United States to the United Nations Committee on the Elimination of Racial Discrimination.”

¹⁵⁰⁷ Board of Regents, University of Minnesota, official Board of Regents cassette tape recording, 11 Oct 2002 (transcribed by Bob Witzeman).

¹⁵⁰⁸ See Unangst, “Key panel recommends telescope contract”; Joel T. Helfrich to Faculty Consultative Committee, University Senate, University of Minnesota, “Board of Regents’ testimony regarding a ‘binding, independent, fair grievance procedure,’” 21 Oct 2004.

¹⁵⁰⁹ Patricia Albers to author, email, 23 Oct 2003.

¹⁵¹⁰ Mount Graham Coalition, *Traditional Apache Visit the University of Arizona, 19 Feb 2002* (also titled, *Traditional Apache meet with University of Arizona President Likins*), video, 19 Feb 2002; Arek Sarkissian II, “Mount Graham protesters storm Administration building,” *Arizona Daily Wildcat* (University of Arizona), 20 Feb 2002; William Crosby to Dwight Metzger, “Final corrected Likins’ statements” (Transcript of UA President Peter Likins’ statements to Western Apaches, 19 Feb 2002), email, 29 Apr 2002; Evelyn Horne and Roger Beatty, “Mount Graham Desecration Continues: Judge

environmentalists did their best during those hours to bend the ear of any Regents who were willing to listen. UMN made concessions that the Apaches did not ask for, showing yet again that UMN was not listening to them. As reporter Unangst wrote, “To clarify the Apache position regarding the offers intended to help appease the American Indians, opponents drafted a letter to the board. The letter, presented Friday, stated that the observatories’ metal foundation rods ‘are like pins in the skull of our creator. . . . This is killing us. Our culture is being destroyed.’”¹⁵¹¹ The concerns of the opponents who were present at the Board of Regents meeting fell on deaf ears. Regent Berman’s request for a process for Apaches to bring forth problems to UA and UMN never materialized. Many Apaches who were at the meetings, felt that the Regents who voted in favor of the telescopes had “no hearts.”¹⁵¹² To sit in front of elders and spiritual leaders who were crying and vote in favor of a project that goes against human rights, cultural rights, and the environment, was “despicable,” in their opinion. As one observer put it, “It took a lot of gall to do that.”¹⁵¹³ The Regents should have met with the Apaches, but individual Regents closed doors to Apache requests.

Rules Against Apaches,” *Earth First! Journal*, Litha 2001; “Sabateurs Hit Powerline Construction Site,” *Earth First! Journal*, Litha 2001; Roger Featherstone, “Anti-Columbus Day Protest Disrupted by Police Violence: Indictment Served to University [of Arizona] to Stop Mt. Graham Desecration,” *Earth First! Journal*, Samhain (Nov-Dec) 2001; Dwight Metzger, “The Fight to Protect Mt. Graham Moves North,” *Earth First! Journal*, Ecostar (Mar-Apr) 2002, 16; Dolores Jordan, “Dear SFB,” letter to editor, *Earth First? Journal*, May-June 2002; David Tytell, “Sharing Mauna Kea: Understanding the Deep-Seated Conflict Between Two Passionate Groups Who Equally Cherish the Same Mountaintop” and “History Repeated: Sharing Mount Graham,” *Sky & Telescope*, Aug 2001, 40-48, 46. In October 2001, nearly 30 protesters were arrested for storming UA’s Mirror Lab.

¹⁵¹¹ Unangst, “Telescope deal approved amid angry protests.”

¹⁵¹² Finance and Operations Subcommittee, official Board of Regents cassette tape recording, 10 Oct 2002.

¹⁵¹³ Michael Nixon, Sandra Rambler, and Wendsler Nosie to author, personal communications, 11 Oct 2002.



“He’s pretty good at it. He’s had a lot of practice with my people.”

Regent Neel, a medical doctor who worked in Rochester, Minnesota, at the Mayo Clinic, the same medical practice that took the bones and bodies of Dakota men and used them for science, before repatriating the remains during the 1990s, made some of the most inappropriate comments about Apaches who had worked so hard to protect Mount Graham. In a letter to environmentalist Witzeman after the Board of Regents made its decision, Neel used the language from his speech during the October 10 Regents’ committee meeting to argue for UMN’s involvement with UA. He specifically noted the potential benefits of the telescope and the programs offered by UMN:

It would seem to me that the Apaches in the area, particularly the young schoolchildren will have a splendid opportunity to observe the research that is being done with the LBT. It will take some time, but I am sure that the young people will embrace their families and they will be

excited about a new view of the magnitude of the universe. It seems like a very natural thing to me.

I am confident that there will be school programs, tours, employment, and other such educational approaches to embrace the local population, including the Apache population. I am absolutely confident that once they are engaged in the project, even though the reservation is some 30 miles away, in one way or another, they will develop interest in it and come to the realization that the exploration of the heavens—in the framework of a god—is part of our lifeblood.¹⁵¹⁴

In response to Neel's letter, but especially his statements spoken at the UMN Regents' meeting, environmentalist Witzeman, a retired anesthesiologist, wrote, "I don't have adjectives to describe how patronizing and culturally insulting and demeaning this Mayo Clinic ear surgeon's (Neel's) ... comments are. It made me ashamed of my medical profession."¹⁵¹⁵

The faculty and staff from UMN's Department of American Indian Studies eventually commented on the statements made by UMN officials: "some of the remarks of the University's central administrators and Regents have been interpreted and construed by the Apaches and the local Minnesota Indian community as culturally insensitive and arrogant. When, for example, the Vice-President of External Affairs states, as reported in the *Star Tribune* that the university is moving ahead with the telescope project because it supports 'research and intellectual curiosity,' we must ask whose curiosity is being privileged here?" The authors pointed out: "When a regent tells the Apaches, as reported in the *St. Paul Pioneer Press*, that they too can 'learn about the heavens' if only they allow themselves to participate in the university's astrophysical endeavors, the implication [that the Apache view is 'invalid' or 'primitive'] is condescending and disrespectful." The authors of the letter asked, "What does this suggest or imply about the University's impression of the ways Apaches reach an understanding of the universe?"¹⁵¹⁶

¹⁵¹⁴ H. Bryan Neel to Robert A. Witzeman, letter, 15 Oct 2002. Neel based his letter on similar comments that are found in the transcripts from the Board of Regents meeting, 10 Oct 2002. See Finance and Operations Subcommittee, official Board of Regents cassette tape recording, 10 Oct 2002.

¹⁵¹⁵ Robert Witzeman to author, email, 29 Nov 2002.

¹⁵¹⁶ Department of American Indian Studies to Members of the Faculty Senate, 2. Emphasis in original.

Only after the final vote did it become clear that the Regents had suppressed alternative voices from its student delegates. Ann Cieslak, Corporate Secretary for the Regents, forbid the student representatives to the Board of Regents from speaking about Mount Graham or obtaining a last minute vote delay on October 11. This gag order led the students to submit a tactful, diplomatic letter stating,

After sitting through the Finance and Operations Committee meeting, reading all the related supporting docket materials, and talking to parties on both sides of the Mount Graham issue, the Student Representatives to the Board of Regents would like to raise our concerns surrounding the University's involvement in this project. It was made clear to us yesterday [October 10, 2002] that the Mount Graham Telescope issue has not had an adequate amount of discussion to warrant our approval at this time. The information provided to us from both sides of the issue is conflicting, making the factual details cloudy at best. The political and academic components of this issue have been thoroughly thought out, but there seems to be a lack of resolve concerning the ethical implications of this project. Due to the conflicting nature of provided information and the strong underlying ethical issues, the Student Representatives recommend that the Board table this issue to address these concerns.¹⁵¹⁷

Anxious to avoid further embarrassment to UMN by allowing the overwhelmingly critical public debate to continue, the Regents' censored the only voice of the student body and showed the actual value they place on representing the university community.¹⁵¹⁸ "Regarding the Mount Graham issue, [student delegate Allison] Rhody said the representatives asked for an exception to speak before the full board on Friday, but were denied. Board officials said the issue needed closure and that the body needed to move forward," according to student journalist Brad Unangst. Continued Unangst, "The representatives wanted the board to hold off a vote on the issue until some of the conflicting information presented in Thursday's committee meeting about the project could be addressed."¹⁵¹⁹ It became clear in the months that followed that there were many

¹⁵¹⁷ See "Regents must be able to work well together," editorial, *The Minnesota Daily* (University of Minnesota), 3 Feb 2003, p. 6.

¹⁵¹⁸ Nick Busse, "University squanders student, taxpayer money," *The Minnesota Daily* (University of Minnesota), 6 Oct 2003.

¹⁵¹⁹ Brad Unangst, "Students on Board of Regents decry limitations," *The Minnesota Daily* (University of Minnesota), 22 Oct 2002, 6. For erroneous comments on the process that contradict the actions that the student representatives took less than two years earlier, see Jake Elo, "Telescope controversy avoidable," letter to editor, *The Minnesota Daily* (University of Minnesota), 22 Apr 2004, 18;

moments when UMN violated the state's "sunshine" open meeting law and silenced dissent within the university.¹⁵²⁰ Clearly the student representatives were the only group to have read the materials regarding Mount Graham that were sent to the Board of Regents. Most importantly, they were the only people, other than Regents Ransom and Baraga, who seemed saddened and concerned by the university's actions and its apparent lack of ethics.

During brief discussions at the meeting before the final vote, several Regents made false or uncritical statements about Mount Graham, UMN, and the opposition groups that showed their concern was more about their allegiance to the university than about making ethical decisions of concern to the university community or its relations. Regent Robert Bergland stated that he had read through all of the materials related to Mount Graham, a statement made unlikely by the fact that the packet of materials was huge and was handed to each Regent when they arrived at the meeting. He then concluded his comments by stating, "My mind is at rest [regarding this matter]."¹⁵²¹ At the time, Regent David Metzen ran the Thomas Irvine Dodge Nature Center, whose mission was to inspire "members of our community ... to become responsible stewards of our environment," and should therefore have been more open to environmental concerns raised in countless letters and documents forwarded to the Regents. In future correspondence with telescope opponents, Metzen stated that the "Board's decision ... is final."¹⁵²²

The project was flawed from the beginning, as UMN scientists would soon realize, and it will always be flawed. Despite promises from UA that the large binocular telescope would be operational in 2003, UMN had to wait years before the telescope would see "first light." By the time UMN joined the Mount Graham International

¹⁵²⁰ "Regents must be able to work well together"; Brad Unangst, "Regents: law deters president search inquiries," *The Minnesota Daily* (University of Minnesota), 15 Jul 2002; "Regents must obey state and obey law," editorial, *The Minnesota Daily* (University of Minnesota), 11 Nov 2002, 6; Molly Moker, "Court rules against U regents: U must release candidate names to five media outlets," *The Minnesota Daily* (University of Minnesota), 21 Jul 2004, 1, 5.

¹⁵²¹ Kristina Torres, "50 protest U's stake in telescope: American Indians say project is on sacred ground," *St. Paul Pioneer Press*, 12 October 2002.

¹⁵²² David R. Metzen to Raleigh Thompson, letter, 22 Sep 2003. See also Thompson to Metzen, 10 Aug 2003.

Observatory in 2002, the previously named “Columbus telescope” was supposed to have been online for exactly one decade.¹⁵²³ “The 7-2 vote marked a departure from the regents’ ‘of one mind’ voting pattern,” according to student reporter Unangst. Within one month of this decision, Bruininks, who had withdrawn his name from the UMN presidential search on October 10, was installed as the successor to former president Yudof and the 25th president of UMN.¹⁵²⁴

After the full Board voted to join the project, there were yells of “Shame,” “Shame on you,” and “How do you sleep at night?” from several members of the audience.¹⁵²⁵ Longtime Indian activist Bellecourt and lawyer Nixon walked out. The anger of their message was clear: Shame on President Bruininks, VP Gardebring, and Provost Maziar, and Regents Maureen Reed, Bergland, Frank Berman, Dallas Bohnsack, Jean Keffler (voted on Thursday), Richard McNamara, Metzen, and Neel. Many of the American Indians and other telescope opponents exclaimed that these were less-than-“honorable” Regents. Apache Rambler approached the horseshoe of power where the Regents sat and yelled, “You might as well arrest me!”¹⁵²⁶ Another member of the audience asked, “How do you sleep at night?” Regents Chairwoman Maureen Reed seemed to anticipate this response and quickly called for a recess. Rambler then called out, “You people have no conscience. How can you turn your backs on us?”¹⁵²⁷ As the Regents filed out, a number of people remained to protest and occupy the space. Apaches and their allies voiced their concerns to each other and any Minnesota administrators that stayed in the room.

In the days following the telescope decision, a number of university community members sent letters to UMN administrators and wrote articles and letters for the local

¹⁵²³ Torres, “50 protest U’s stake in telescope.”

¹⁵²⁴ Brad Unangst, “Bruininks withdraws name from candidate list,” *The Minnesota Daily* (University of Minnesota), 10 Oct 2002; Paul Sand, “Bruininks named president; regents approve ’04-’05 budget,” *The Minnesota Daily* (University of Minnesota), 11 Nov 2002, 1, 5.

¹⁵²⁵ Mary Jane Smetanka, “‘U’ regents approve telescope project: ‘Shame on you’ protestors shout after split vote,” *Star Tribune*, 12 Oct 2002; Unangst, “Telescope deal approved amid angry protests”; Sara Hebel, “Universities of Minnesota and Virginia Decide to Join Controversial Telescope Project,” *The Chronicle of Higher Education*, 14 Oct 2002.

¹⁵²⁶ Torres, “50 protest U’s stake in telescope.”

¹⁵²⁷ Unangst, “Telescope deal approved amid angry protests.”

newspapers.¹⁵²⁸ The protests that begin in late 2001 on the Minneapolis campus heated up again at various points during meetings of the University Faculty Senate, Board of Regents, and other university groups during the years 2003, 2004, and 2005. The real powerbrokers of UMN, the Faculty Consultative Committee, exerted immense amounts of control over UMN faculty and University Senate.¹⁵²⁹ After a divestment campaign, a great amount of new protests and publicity, and several new resolutions from the White Mountain Apache Tribe, the National Congress of American Indians, and academic departments, including Bruininks' own department in UMN's College of Education and Human Development, the issue of UMN's involvement in the Mount Graham astrophysical development project eventually took a back seat to new concerns and problems.¹⁵³⁰ UMN would eventually show in 2003 and 2004 exactly how little it cared

¹⁵²⁸ Stephen Feinstein, "Telescope contract," letter to editor, 14 Oct 2002, 6; Kim Jackson, "Telescope contract," *The Minnesota Daily*, 15 October 2002, 6; Joel Helfrich, "University participation fails native peoples," *The Minnesota Daily* (University of Minnesota), 21 October 2002, 9; Joel T. Helfrich, "University gains president, loses ethics," *The Minnesota Daily* (University of Minnesota), 11 Nov 2002, 7. See also, Dan Haugen, "Astronomers see a clearer future with Arizona telescope," *The Minnesota Daily* (University of Minnesota), 23 Oct 2002.

¹⁵²⁹ See Faculty Consultative Committee, University of Minnesota, Meeting Minutes, 30 Oct 2003; Faculty Consultative Committee, Meeting Minutes, 6 Nov 2003; Judith Martin (Chair, Faculty Consultative Committee) to Margaret Kuchenreuther (Chair, Senate Social Concerns Committee), email, 18 Feb 2004.

¹⁵³⁰ Joel Helfrich, "University should divest from telescope project," *The Minnesota Daily* (University of Minnesota), 7 Oct 2003; Joel Helfrich, "Telescope project pits one U arm against another," *The Minnesota Daily* (University of Minnesota), 21 Oct 2003, 5; Rod Coronado, "'This is Cultural Genocide at its Worst'—Environmental Activist Rod Coronado on UofA's Plans for Construction on Apache Sacred Ground," Interview by Amy Goodman, *Democracy Now!*, 14 Oct 2003, www.democracynow.org/article.pl?sid=03/10/14/1723203, accessed 25 Oct 2003; Stephen B. Boyd (Professor of Religion, Wake Forest University) to Members of the University Senate, letter, 29 Oct 2003; Concurrent Meeting of the University Senate, Faculty Senate, and Twin Cities Campus Assembly, University of Minnesota (with the campuses of Duluth, Crookston, and Morris via phone), meeting, 30 Oct 2003, transcribed by author, 11 Jan 2004; White Mountain Apache Tribe, Resolution No. 12-2003-296, 17 Dec 2003; Diversity Committee, College of Education and Human Development, University of Minnesota, "Statement of Support for the Faculty Senate Social Concerns Committee Regarding the Mount Graham Telescope Project," 3 Feb 2004, <http://intranet.education.umn.edu/diversity/mtgraham.asp>; Rachel Hiwet-Herzog, "FW: CEHD Diversity Committee Statement of Support," email, 9 Feb 2004; Bob Witzeman to author, "RE: College of Education and Human Dev. Statement..." email, 20 Feb 2004; Michael Nixon to author, email, 20 Feb 2004; Rachel Hiwet-Herzog to author, email, 25 Feb 2004; Mt. Graham Coalition, "Apache Tribe asks universities to 'cease and desist' from injurious Mt. Graham telescope project," News Release, 25 Feb 2004; "Telescope: U's position dicey"; Kari Petrie and Geoff Ziezulewicz, "Telescope is an opportunity and a controversy: U officials are anxious for sky time at Mount Graham," *The Minnesota Daily* (University of Minnesota), 21 Apr 2004, 1, 10, 12; Geoff Ziezulewicz, "A mirror with a view: Mount Graham's telescope is the first of a new generation," *The Minnesota Daily* (University of Minnesota), 21 Apr 2004, 10; Kari Petrie, "Telescope sits high as cultural divide runs deep: Apache Tribe members

about listening to alternative viewpoints and debating the issue, as well as how little it considered the health of Mount Graham or the well-being of Apaches who struggled and lobbied so hard for the mountain's protection.¹⁵³¹ At a national astronomy conference in Minneapolis in June 2005, nearly three years after UMN joined the telescope project, UMN astronomer Robert Gehrz stated that "every mountain is sacred to some native group" and then compared Apaches to "fundamentalists" and the "Taliban." When activist Metzger attempted to correct him by stating, "You mean traditionalists," Gehrz replied, "These are the same people who won't ever let their women take their *burkas*

consider the Mount Graham site holy," *The Minnesota Daily* (University of Minnesota), 21 Apr 2004, 11, 12; Geoff Ziezulewicz, "All sides put value on environment," Mount Graham Special Report, *The Minnesota Daily* (University of Minnesota), 22 Apr 2004, 1A, 12A; Kari Petrie, "Mountain is part of Apache spirituality," Mount Graham Special Report, *The Minnesota Daily*, 22 Apr 2004, 10A, 12A; Kari Petrie, "Activist teaches Apaches their traditional culture," Mount Graham Special Report, *The Minnesota Daily*, 22 Apr 2004, 10A, 12A; Geoff Ziezulewicz, "Vatican team sees a creator in the creation," Mount Graham Special Report, *The Minnesota Daily* (University of Minnesota), 22 Apr 2004, 11A; Geoff Ziezulewicz, "In the woods, another U facility," Mount Graham Special Report, *The Minnesota Daily* (University of Minnesota), 22 Apr 2004, 11A; Melissa Buffalo, "Don't focus on negative, irrelevant Apache issues," letter to editor, *The Minnesota Daily* (University of Minnesota), 26 Apr 2004, 9A; Patrick J. McNamara, "Resolution Regarding the Contract Between the University of Minnesota and the Research Corporation," Submitted to Senate Agenda, University Senate, University of Minnesota, 29 Apr 2004; Kari Petrie, "Apache Supporters criticize telescope," *The Minnesota Daily* (University of Minnesota), 6 May 2004, 5A; Metzger and Helfrich, "U ignores spiritual aspects of telescope," 11; Joel T. Helfrich, Sraddha P. Helfrich, and Alan Roy, to Board of Regents, letter, 14 May 2004; Patrick J. McNamara to Avelino Mills-Nevoa (UMN Vice President for Multicultural and Academic Affairs), email, 15 Sep 2004; Avelino Mills-Nevoa to Patrick McNamara, email, 16 Sep 2004; Avelino Mills-Nevoa to Robert Bruininks, et. al., "Mt. Graham Audit," email, 27 Sep 2004; "You Can't use a Telescope with Your Head Up Your Ass," flyer, n.d.; Kari Petrie, "Mount Graham: Observatory to be dedicated today: The University partially owns the Large Binocular Telescope in Arizona," *The Minnesota Daily* (University of Minnesota), 15 Oct 2004, 1, 3; Michael Nixon, "University should divest from observatory: Mount Graham is a historical Apache traditional cultural property and sacred site," *The Minnesota Daily* (University of Minnesota), 25 Oct 2004, 9A. One of the last comments about Mount Graham in the Minnesota press was: Joel Helfrich, Dwight Metzger, and Michael Nixon, "Native Tribes Struggle to Reclaim Sacred Sites," *Pulse of the Twin Cities*, <http://pulsetc.com/article.php?sid=1865>, 1 June 2005.

¹⁵³¹ See Feinstein, "Telescope Contract"; John Schaus, "Questioning Mount Graham coverage," *The Minnesota Daily* (University of Minnesota), 3 May 2004, 6A; Martin to Kuchenreuther, 18 Feb 2004; Margaret Kuchenreuther to Patricia Albers and author, email, 19 Feb 2004; Patricia Albers to author, emails, 19 Feb 2004; Bob Witzeman to author, emails, 20 Feb 2004; Carol Chomsky to Patrick McNamara, email, 20 Feb 2004; Patrick McNamara to author, emails, 11 Nov 2003, 20 Feb 2004; Michael Nixon to author, email, 22 Feb 2004.

off.”¹⁵³² UMN officials, astronomers, and personnel displayed outright prevarication and did everything in their power to silence public deliberation over the issue.¹⁵³³

UMN joined and stayed with the project despite ongoing protests and problems with the microwave/radio/telecom tower on Mount Graham, a controversial proposed tree thinning around the telescopes by 200 feet, pending lawsuits regarding the power lines, Max Planck’s decision to abandon its telescope on Mount Graham, the historic status for Mount Graham as a Traditional Cultural Property of the Western Apache people, and a heap of bad press and publicity.¹⁵³⁴ UMN administrators and astronomers provided the following disinformation: the telescope was built; all lawsuits were settled; the Apaches were in favor of the telescopes; the “Tribe” (a reference to the San Carlos Apache Tribe) once opposed the project, but was by 2002 in favor; all parties were consulted. UMN joined a project that was still years away from completion and whose parts had not been shipped to the mountain.¹⁵³⁵ “Please review the ‘opt-out’ clause in the UM[N] contract with Research Corporation, which allows for UM[N] to divest from the Mt. Graham observatory without penalty if the Large Binocular Telescope is not operational by June 30, 2005,” wrote White Mountain Apache Tribal Chairman Dallas Massey, Sr., in a letter to UMN Regent Metzen, who was by 2005 the chair of the Board of Regents. “The LBT remains incomplete and chronically behind schedule. This, we believe, . . . is a further indication of its decrepit foundations,” Massey pointed out.¹⁵³⁶ Although UMN officials declared that the large binocular telescope would be operational by 2004, the truth is that

¹⁵³² Robert Gehrz to Dwight Metzger and author, personal communication, 1 Jun 2005, American Astronomical Society (AAS) 206th Meeting, Minneapolis, 29 May-2 Jun 2005.

¹⁵³³ Lawrence Rudnick to University Senate, University of Minnesota, email, 23 Oct 2003; Margaret A. Kuchenreuther to author, email, 24 Oct 2003; Patrick J. McNamara to author, email, 24 Oct 2003; Angela Delmedico, “U Senate reviews disputed Mount Graham participation,” *The Minnesota Daily* (University of Minnesota), 31 Oct 2003; Len Kuhi to Angela Delmedico, email, 31 Oct 2003; Angela Delmedico to Len Kuhi, email, 2 Nov 2003; Angela Delmedico to author, email, 3 Nov 2003; Patricia Albers to author, email, 7 Nov 2003; Margaret Kuchenreuther (Chair, Senate Social Concerns Committee) to Members of the University Senate, “RE: Ruling of the Senate Parliamentary regarding continued Senate discussion of the Mt. Graham telescope project,” letter, 25 Feb 2004; Patricia Albers to author, emails, 19 Feb 2004.

¹⁵³⁴ Dallas Massey, Sr. (Tribal Chairman, White Mountain Apache Tribe) to James Garrison (State Historic Preservation Officer, Arizona), letter, 30 2004.

¹⁵³⁵ Aimee Staten, “Scope base rolls up,” *Eastern Arizona Courier* (Stafford, AZ), 8 Jun 2002.

¹⁵³⁶ Dallas Massey, Sr. (Tribal Chairman, White Mountain Apache Tribe) to David Metzen (Chair, UMN Board of Regents), letter, 8 June 2005.

only one of the telescope's two mirrors was online in October 2005. In fact, it took until March 2008, five and a half years after UMN joined the project and nearly 20 years since UA and its research partners obtained its Congressional exemption, for the telescope to work at full power.¹⁵³⁷

UMN also stayed with the project, in spite of the fact that by late 2003, the Department of Astronomy was still “over \$2 million” short of its Hubbard gift match requirement and UMN was in the midst of a budget crisis.¹⁵³⁸ UMN ultimately showed its uncritical support of one academic department (astronomy) and nearly complete disregard for another department's research and successes (American Indian Studies).¹⁵³⁹ “Scientists should be able to do what they do without fetters and ethics as long as it is legal. So the university goes ahead, even if the legality of the whole thing is problematic, circumventing existing federal laws including those that govern historic places and religious freedoms,” stated Patricia Albers, the chair of American Indian Studies at UMN, a year after UMN joined the project. Continued Albers, “Also, the argument that we need to protect central [administration] from any embarrassment misses the point—that all along the bureaucracy has been protecting its own interests at all costs.”¹⁵⁴⁰

Conclusion

Minnesotans hold a place in their hearts for the North Star. According to state of Minnesota publications, “L’Etoile du Nord” or “The Star of North” is the state motto and is written on the state seal, while its nickname is the “North Star State.” The star has provided direction to state officials since the state's inception in 1858. The state seal is, with few changes, the original territorial seal that obviously predates the state. Both seals include an Indian on horse, a settler plowing a field near the Mississippi River, and a sunset. The state flag also highlights the symbolic importance of the North Star to

¹⁵³⁷ Dan Sorenson, “Mt. Graham's powerful new scope leaves all others in the cosmic dust,” *Arizona Daily Star* (Tucson), 6 Mar 2008; Anne Ryman, “World's strongest telescope at full power in Arizona,” *The Arizona Republic* (Phoenix), 6 Mar 2008.

¹⁵³⁸ Department of Astronomy, University of Minnesota, *Minnesota Astronomy Review: A Newsletter for our Friends and Alumni*, vol. 18 (Fall 2003/2004), www.astro.umn.edu/news/vol18.pdf, 7. See AFSCME Local 3800, “There is a Distribution Crisis at the U of M Not a Budge Crisis!” flyer, Fall 2003.

¹⁵³⁹ Patricia Albers to author, email, 10 Feb 2004.

¹⁵⁴⁰ Patricia Albers to author, email, 12 Nov 2003.

Minnesotans: the largest of the 19 stars, centered at the top of the state flag, is the North Star.¹⁵⁴¹ The North Star also plays an important role at UMN. Part of UMN's "Hail! Minnesota" tune emphasizes the importance of the North Star: "Thou [University of Minnesota] shalt be their Northern Star."¹⁵⁴² In other words, the academy should act as the beacon of light for those who are lost. To drive home that message and the importance of the stars, one quadrant of the university's crest has a telescope.

However, because the North Star is ever-changing and because UMN is following a star whose focal point has always shifted, it acts as a metaphor for the Minnesota's inability to do any "real" science. "While astronomy may now have access to one of the best telescopes in the world, it will not be able to use it with any peace of mind. Continued moral discontent, political confrontation, court battle, and possibly even violence will cloud and haunt this issue for many decades to come," wrote Albers in an email to a UMN astronomer. Queried Albers, "Is technological superiority worth the cost of being perpetually thrust into a moral, political, and legal maelstrom?"¹⁵⁴³ Because it added the university's name to the telescope project on Mount Graham, many Indian activists like Anderson think that the university cannot heal its cancerous spiritual leg. Many indigenous peoples have long known that the North Star point has shifted. Such understanding displays the profound knowledge that indigenous peoples have about the stars and the universe. To obtain the knowledge that comes to indigenous peoples staying at least 26,000 years in at least one place is both powerful and amazing. It displays just how much indigenous peoples know and how long they have remained in one place to be able to witness the earth make one complete rotation or more on its axis.

Because UMN followed a false star, many Apaches and environmental activists have begun to feel as if Minnesota's conscience is clouded dark. The North Star, although the names change, is more often not true north than it is. Just as the earth's axis is

¹⁵⁴¹ "State Symbols," Minnesota State Government Series, Minnesota House of Representatives Public Information Services, 7/24/08, www.house.leg.state.mn.us/hinfo/govser/GOVSER2.pdf

¹⁵⁴² Although "Hail! Minnesota" was created at UMN, a different version of the song was adopted by the Minnesota State Legislature in 1945. See <http://www.music.umn.edu/marchingband/history/hailminn.html>.

¹⁵⁴³ Patricia Albers to Lawrence Rudnick, email, 21 Apr 2004.

currently off by one degree, UMN, in its quest for money, notoriety, research, and rankings, missed the mark in its decision to join the telescope project. Indeed, UMN's involvement clouded the proper role of an academic institution and highlighted the serious problems at UMN and elsewhere in higher education. The example of UMN joining the astrophysical development on Mount Graham provides another case study, like that of UA and the Vatican, of historical resemblances at work: land grant equals appropriation—then and now—of native lands; whites benefitting at the expense of others; pseudo-science prevailing and the privileging of European knowledge; and the extension of divide and conquer strategies from the nineteenth century to the present.

UMN is a place in serious need of real leaders, both in the president's office in Morrill Hall and in the Board of Regents headquarters in the McNamara Alumni Center. The members of the University Senate, which included faculty from every college and school on every UMN campus—indeed, the entire university—would have been held in high regard by various Tribes throughout the U.S. if it had approved the resolution against the telescopes, sent it to the Board of Regents, and urged the Board to allow for public comment, dialogue, debate, and discussion. The members of the University Senate should also have been required to become informed about the longstanding controversy surrounding Mount Graham. Indeed, most faculty and staff who did a little reading about the subject eventually argued against the university's involvement.

The money and reputation that the Mount Graham International Observatory supposedly brought to UMN came at a cost. University faculty should have remembered that the word “prestige” derives from the Latin *praestigium*, which means a delusion or illusion.¹⁵⁴⁴ In that sense, it would not have been difficult or farfetched for UMN to have made a different decision. Some activists recalled that in another instance, UMN spent money in 2003 to send students to a conference on riot protocol in New Hampshire because UMN students had rioted after national collegiate hockey championship on April 6, 2002.¹⁵⁴⁵ What if the university had sent students to Mount Graham to investigate what

¹⁵⁴⁴ Joel Helfrich, “Telescope project pits one U arm against another,” 5.

¹⁵⁴⁵ Burl Gilyard, “Reading the Riot Act,” *Minnesota Magazine* (University of Minnesota), Sep-Oct 2003. See also, Amy Hackbarth, “Students charged in hockey melee,” *The Minnesota Daily* (University of

is a more complex issue? Perhaps the students could have joined other faculty and staff who had already decided that Minnesota's involvement in the telescope project was a bad idea.

Approval of this project made a mockery of the recommendations made at the time by various University, local, state, and national groups. The university effectively sidestepped advice from UMN Faculty Senate's Social Concerns Committee; UMN American Indian Advisory Board; the Metro Urban Indian Affairs Council (which represents the largest urban Indian population in the country); the Minnesota Indian Affairs Council (which represents all eleven federally-recognized Tribes in Minnesota); the world's largest student-run newspaper, *The Minnesota Daily*; the world's largest environmental organizations; countless other groups and individuals; and most importantly the sovereign nations of the San Carlos and White Mountain Apache Tribes. UMN administrators, astronomers, and Regents ignored the thorough investigations and recommendations of its own advisory boards in order to advance the careers of an elite few within the astronomy department. In the process, UMN's actions brought attention to the Indian protests against the local Highway 55 reroute in Minneapolis through sacred lands, Dakota Indians fighting against planned development on Pilot Knob near the airport, and university researchers who had patented essential medicines and mapped the genome and threatened to patent the state's grain, wild rice, a sacred food to the Anishinaabeg.¹⁵⁴⁶

All of the university's efforts to join the project were made against the wishes of what ought to be an equally important interest at UMN: the Department of American Indian Studies—the first of its kind in the U.S. After the Department of American Indian

Minnesota), 1 Jul 2002; Amy Hackbarth, "Students charged with hockey riot vandalism," *The Minnesota Daily* (University of Minnesota), 8 Jul 2002; Paul Sand, "Regents take up student riot policy," *The Minnesota Daily* (University of Minnesota), 9 May 2003.

¹⁵⁴⁶ May Losure, *Our Way or the Highway: Inside the Minnehaha Free State* (Minneapolis: University of Minnesota Press, 2002); Freedom, *The Story of the People at Taku Wakan Tipi and the Reroute of Highway 55 or the Minnehaha Free State* (self-published, 2004); "Pilot Knob EAW Comment?—Please send your comments now," email, 22 Oct 2003; North Country Co-op, "Winona LaDuke of White Earth Land Recovery Project"; White Earth Land Recovery Project, "Stop the Bio-Piracy of Our Sacred Manoomin [wild rice]"; Winona LaDuke, *Recovering the Sacred: The Power of Naming and Claiming* (Cambridge, MA: South End Press, 2005).

Studies, the Senate Social Concerns Committee, and the University President's American Indian Advisory Board, among others, suggested in 2002 that UMN wring its hands of the telescope project, those important university groups stepped back, assuming that their comments and suggestions would be taken seriously and honored by Yudof and Bruininks, Maziar, Gardebring, Kuhi, and members of the Board of Regents. The Department of American Indian Studies and other groups also assumed that they would be contacted again if university officials were still considering joining the project. American Indian Studies said it best in a letter signed by a number of faculty and graduate students: "We were not even given the courtesy of meeting with Central Administration officials, and we were never given the opportunity to bring our case before any deliberative body of the University."¹⁵⁴⁷ UMN's efforts to marginalize the voices of its own faculty, various groups, and native communities fit nicely with the colonial legacy that UA and its research partners began decades earlier.

UMN also effectively avoided discussion of at least six San Carlos Apache and White Mountain Apache Tribal Council resolutions over the previous two decades that had opposed the project. Several resolutions declared the project "a display of profound disrespect for a cherished feature of our original homeland as well as a serious violation of Apache Traditional Religious beliefs."¹⁵⁴⁸ Yet UA and its partners, including UMN, continued to claim on their websites that the Apaches remain neutral on this issue. The U.N. High Commission on Human Rights cited the Mount Graham observatory as a prime example of religious intolerance by government in the U.S. In the past few years, especially, Americans have become more aware of intolerance that grows all over the world. But UMN decided to be a negative example. Its actions acted as an ugly reminder of intolerance in the U.S., as exemplified by this project.

Despite UA unsuccessfully begging for partners to complete funding on their national and international controversy for more than 20 years, scores of U.S. universities have carefully reviewed, studied, and rejected the project. Reasons included bad science, bad economics, bad viewing weather, very bad visibility, and an egregious environmental

¹⁵⁴⁷ Department of American Indian Studies to Members of the Faculty Senate, 4.

¹⁵⁴⁸ San Carlos Apache Tribe, Resolution JN-01-04.

and cultural affront that would bring shame and dishonor to any university participating. The large binocular telescope on Mount Graham was, at the time UMN joined and for several years afterward, an empty observatory building waiting for parts. Many administrators and Regents did not realize that just because there are telescope structures present on the mountain does not make it right or morally defensible for UMN to join. UA had not been respectful, forthright, or honest with the Apaches. Their website lies about their interactions with the Apaches and the fact that UA illegally clear-cut several acres of forest to make room for the large binocular telescope that Minnesota says that it now backs. Many Apaches and their allies could not see how Minnesota's administration thought that it was justified to join in this activity.

The U.S. Fish and Wildlife Service stated that the project would destroy ten percent of the "best" habitat of the endangered Mount Graham red squirrel and its "cradle of evolution" boreal forest. UA says that if they are ever able to obtain funding partners to complete their project, they will build four more telescopes. This means more pain and suffering to the Apache, as well as destruction of a total of 22 percent of that critical boreal forest cradle of evolution. This is another reason why it was crucial that UMN stay out of this project. It will enable UA to continue its train of injustices involved with building the telescopes on Mount Graham.

UA lawyers declared in court that even if the project "was going to kill every squirrel, nothing could be done about it."¹⁵⁴⁹ UA spent millions of dollars to sneak a rider through Congress in 1988 without any hearings or public debate.¹⁵⁵⁰ UA lawyers argued in court that their rider maneuver exempts them from all U.S. Native American cultural and religious protection laws, as well as all U.S. environmental laws.¹⁵⁵¹ Obviously these actions reinforce colonialism in the present. UMN decided to engage in the silly process

¹⁵⁴⁹ Sam Negri, "Judge OKs 4-month work ban on Mount Graham telescopes: Biologists will restudy fate of red squirrels," *The Arizona Republic* (Phoenix), 27 Mar 1990.

¹⁵⁵⁰ "Astronomers, Biologists Clash Over Observatory Plans," *The Washington Post*, 8 Mar 1990, A8; Charles Bowden, "How the University [of Arizona] Knocked Off Mount Graham," *City Magazine* (Tucson), 1 Jan 1989, 28-36.

¹⁵⁵¹ Jim Erickson, "Federal panel hears scope arguments," *Arizona Daily Star* (Tucson), 14 Dec 1990; "Mount Graham: Delegation should clarify what its intent really was," editorial, *The Arizona Daily Star* (Tucson), 18 Dec 1990.

of using similar weak legal arguments to skirt around serious issues like cultural protection, honoring human rights, respecting the environment, and standing up for religious freedom. Even in supposedly liberal academia, colonialism persists.

UMN cared more about its North Star than about American Indians, the environment, or ethics. The University's efforts to map the genomic structure of wild rice, marginalize the work of Native peoples, disregard the input and wishes of Indians in Minnesota, and join the Mount Graham telescope project all point toward an academic institution's collective racist ideology. Many faculty and staff fear that other groups of people may be similarly marginalized by this administration. It was hoped that, in the words of LaDuke, "the University of Minnesota will bring ethics into its relationships with indigenous people and others in the new millennium."¹⁵⁵² The actions and words of many administrators, astronomers, and Regents involved with the telescope project point toward a not so distant past in which the university participated in and encouraged pseudoscience, eugenics, and racism.¹⁵⁵³

The key point is that all of the programs that UMN promised have never and will never materialize. All of the costly programs have never come to fruition. They were empty promises and bribes made by President Bruininks, Provost Maziar (now at Notre Dame), Vice President Gardebring (now at Cal Poly), Dean Davis (stepped down), Professor Kuhi (retired), Regent Berman (no longer serving), and Regent Neel (no longer serving), among others. As is often the case in the history of the struggle for Mount Graham, the departure of administrators whose universities joined the project drove home a longstanding reality for the Apache people: Apaches were left to practice their religion and culture despite the actions of people who affected their lives before retiring or moving on to positions elsewhere. What is amazing is to consider that what UMN did in 2002 is no different than what the Booz-Allen-Hamilton study suggested in the 1990s: offer tribal incentives, create or take advantage of tribal divisions, and make outliers of those who do not agree with your policies. Alternatively, take the moral high road and

¹⁵⁵² Winona LaDuke, "Wild Rice, Ethics, and Captain Hook," *The Circle* (Minneapolis), Jun 2004, 16. Reprinted as "Wild Rice and Ethics," *Cultural Survival Quarterly*, vol. 28, no. 3 (Fall 2004).

¹⁵⁵³ Soderstrom, "Weeds in Linnaeus's Garden."

leave the mountain.¹⁵⁵⁴ For the mountain, its people, and its animals, Minnesota followed the UA's playbook and did the former.

In the wake of UMN's decision, opponents of the positions and actions of both UA and UMN began to imagine if the Apache voices had been embraced all along; if advisory committees' recommendations were honored; if the astronomers had to admit that there are non-destructive alternatives for their research; if Apache representatives were granted a meeting with President Bruininks; if the UMN community truly respected dialogue, discussion, and debate; and if the Regents were to have voted with full and unbiased information. The rumbling of the foundation of lies on which this telescope is built was felt strongly, and not just from the two hundred plus supporters that gathered inside and outside of the Regents' headquarters in October 2002. A deep tremor shook the power structure of the University of Minnesota and threatened to override the course of history.

¹⁵⁵⁴ Booz-Allen & Hamilton, Inc., "University of Arizona: Mount Graham Observatory Review Issues."

What is true is that if you are deluded and sentimental about your past, you are more likely to be deluded and sentimental about your present.¹⁵⁵⁵

—David Rubenstein

It is not the future, but the past that separates us.¹⁵⁵⁶

—Mary Doria Russell, *Children of God*

The past is never dead. In fact, it's not even past.¹⁵⁵⁷

—William Faulkner, *Requiem for a Nun*

Don't reproduce imperialist amnesia. Don't let the public forget.¹⁵⁵⁸

—Vijay Prashad

Survival is a form of resistance.¹⁵⁵⁹

—Gerda Lerner

¹⁵⁵⁵ David Rubenstein, "Doomed to repeat it," *Star Tribune* (Minneapolis), 27 Sep 2004, A8.

¹⁵⁵⁶ Maria Doria Russell, *Children of God* (1998; New York: Fawcett Books, 1999), 38.

¹⁵⁵⁷ William Faulkner, *William Faulkner: Novels, 1942-1954* (New York: Library of America, 1994), 535.

¹⁵⁵⁸ Vijay Prashad, "Grieve Locally, Bomb Globally," lecture, Radical History Conference, University of Minnesota, 29 Mar 2002.

¹⁵⁵⁹ Gerda Lerner, "Survival is a Form of Resistance," in *Black Women in White America: A Documentary History* (New York: Vintage Books, 1992), 287.

CONCLUSION: RETURN THE SACRED

Quite possibly the longest running war in human history is by various North American tribes who struggle to assert their land-based connections and religious rights against various corporate interests, academic institutions, governments, and mainstream religious organizations. As one opponent to astrophysical development on Mount Graham stated in a letter to Pope John Paul II, after describing some of the actions by Christian nations since 1492: “Reminding United States citizens of these early times of land development by” white European nations and their “methods of ‘civilizing’ the Native American is not needlessly dredging up the past. It is only a reminder of the roots of a 500 year struggle the Native Americans have been fighting in order to maintain even the most fundamental of human rights—the freedom of religion.”¹⁵⁶⁰ At the root of the struggle for religious and spiritual freedom is an effort to protect and maintain sacred places.

Throughout this dissertation, I attempted to argue that, rather than seeking to expand knowledge or improve the human condition, the University of Arizona and its research partners pursued prestige and high national rankings for their institutions. UA and its partners used questionable means to appropriate land and resources from Native Americans and permanently altered a unique ecosystem. UA’s actions replicated earlier efforts—including those of the Spanish in the 1600s and the United States government in the 1800s—to colonize Mount Graham and exploit its indigenous residents and the mountain’s resources. Unfortunately, UA and its research partners showed that the recent struggle for Mount Graham concerns the disentanglement of sovereignty and the ever-mutating forms of colonialism that still unfold in the present.

As American Indian author N. Scott Momaday once stated, “where there is the sacred there is sacrilege, the theft of the sacred. To steal the sacred is to rob us of our very selves, our reason for being, our being itself. And sacrilege is a sin of which we are

¹⁵⁶⁰ Kristy L. Lindgren to Pope John Paul II, letter, 18 May 1992, 1.

capable. Look around you.”¹⁵⁶¹ But it is possible to see change and actively advocate for change. According to Lakota scholar Vine Deloria, Jr.,

At the bottom of everything, I ... believe, is a religious view of the world that seeks to locate our species within the fabric of life that constitutes the natural world, the land and all its various forms of life. As long as Indians exist there will be conflict between the tribes and any group that carelessly despoils the land and the life it supports. At the deepest philosophical level our universe must have as a structure a set of relationships in which all entities participate. Within the physical world this universal structure can best be understood as a recognition of the sacredness of places.

... It will take a continuing protest from an increasingly large chorus to reprogram the psychology of American society so that we will not irreversibly destroy the land we live on. ... [W]e have the potential to ... come to some deep religious realizations of the role of sacred places in human life.¹⁵⁶²

In her critique of Manifest Destiny and other mindsets of the colonizer, American Indian writer Winona LaDuke once put it this way: “A society based on conquest cannot be sustained.”¹⁵⁶³ Many native and non-native peoples have been working for some time to change the behavior of the colonizer, advocate for religious freedom, protect sacred sites, and restore their land base.

Even some of the politicians who have been responsible for the ways in which the history of Mount Graham has played out during the last 30 years understand the inseparable links between Indigenous communities and land. “Clearly past federal efforts have not been adequate to protect Indian people and their lands,” Arizona Senator John McCain once stated. He added, “We need to protect the well being of the Indian people and the tribes most valuable tangible asset—their lands.” Land connections provide health and wellness to native peoples. As McCain warned in 1992, “I believe further direction and focus on Indian environmental problems is necessary unless we want to wake up 20 years from now and find that these problems pose an even greater risk to the

¹⁵⁶¹ N. Scott Momaday, “Sacred Places,” *The Man of Words: Essays, Stories, Passages* (New York: St. Martin’s Griffin, 1998), 116.

¹⁵⁶² Vine Deloria, Jr., *God is Red: A Native View of Religion* 2nd ed. (1972; Golden, CO: Fulcrum Publishing, 1992), 1-2.

¹⁵⁶³ Winona LaDuke, “A Society Based on Conquest Cannot Be Sustained,” in Al Gedicks, *The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations* (Cambridge, MA: South End Press, 1993), ix-xv, esp. xi-xii.

health of [native] people on and off the reservation.”¹⁵⁶⁴ White Euroamericans and American Indians are seeing threats to their health because of environmental degradation, pollution, limited species diversity, and an eroding interconnectedness of species. The role of native religion in working to find solutions to these problems is almost always overlooked or missed, even by people who are religious.

An academic dean and professor of biochemistry and molecular biology at UMN named Victor Bloomfield once asked his colleagues on the Senate Research Committee why the views of Western Apaches whom he called “the traditionalists” should trump the work of science. Queried Bloomfield, “What is the reason to privilege the traditionalist religious position?”¹⁵⁶⁵ The question showed the extent to which Bloomfield, like other members of that governing body, were misled. The event that he asked about has not happened yet. In fact, the science of astronomy had “won” over the interests of the biological sciences, ecological rules, Apache beliefs, numerous tribal resolutions, the needs of the environment, the laws of the U.S. that are supposed to protect religious freedom, culture, human rights, and the environment, the views of church groups and everyone who spoke up against the project over the years—internationally, nationally, and locally in the state of Minnesota and at UMN. At what point have the Western Apache concerns, coupled with the concerns of various environmental groups, trumped the work and research of science?¹⁵⁶⁶

Academics like Bloomfield are always saying that there is a “process” to every decision that is made.¹⁵⁶⁷ Often the process is flawed, skewed, or created by and for the power-holders of any given university. It is often not a fair process—right down to who gets money from the university and the federal government. In many cases, science gets

¹⁵⁶⁴ “McCain bill supports Indian environment,” *San Carlos Apache Moccasin* (Globe, AZ), 14 Jul 1992.

¹⁵⁶⁵ Faculty Senate Research Committee meeting, University of Minnesota, Meeting Minutes, 9 Feb 2004; Renee Dempsey to Senate Social Concerns Committee, “FW: Research Committee 2/9/04,” email, 25 Feb 2004.

¹⁵⁶⁶ Faculty Senate Research Committee meeting, University of Minnesota, 23 Feb 2004. See also Faculty Consultative Committee, University of Minnesota, “Excerpt from the DRAFT minutes,” 19 Feb 2004. This document discussed stem cell research, academic freedom, and proposed revisions to UMN’s “Statement on University Research.”

¹⁵⁶⁷ Joel T. Helfrich to Renee Dempsey and Senate Social Concerns Committee, University of Minnesota, “Re: 2/23/04 Social Concerns Meeting Reminder & Agenda,” email, 23 Feb 2004.

money even when it appears that it is not, as seen by federal funding increases for the National Science Foundation (NSF) and the National Institute of Health in 2004. Congress gave more money than NSF requested. Meanwhile the National Endowment for the Humanities got more money allocated to in the 2004 budget, but most of that increase is going to a skewed, nationalistic view of teaching history. In the case of Western Apaches struggling to protect their sacred, ancestral homelands, any existing processes, particularly the application of law, have never worked in their favor, nor in support of the environment, the mountain, or environmentalist allies.

In March 1995, San Carlos Apaches invited members of the Racial Justice Working Group of the National Council of Churches of Christ in the U.S.A. to the reservation to listen to Apaches explain the significance of Mount Graham to their religion, their culture, and their original, traditional spiritual homeland. After meeting and forming what in some cases have become lasting bonds with Apaches, the 45-member delegation passed a resolution asking that the entire mountain, currently a national forest, be returned to the Apache people for their use and control.¹⁵⁶⁸ This somewhat radical idea has numerous precedents in U.S. history and should be realistically considered if the Western Apache people are to maintain balance and order in their world and truly be able to freely express their rights to sovereignty, religion, and justice. Trying to right a longstanding wrong is not about revenge; rather, it is about justice.

For Western Apaches who use and revere the mountain, there is no other like it, nor is it replaceable. "The simple-but-essential truth is that the long-term health of Apache people and our cultures depend in a very real way on the physical and visual

¹⁵⁶⁸ Giovanni B. A. M. Panza, "The Impaling of Apache Holy Ground: No Conflict Resolution on Mt. Graham" (master's thesis, Prescott College, Arizona, 1997), 26. See The Racial Justice Working Group, National Council of Churches, "To Stop the Desecration and Destruction of Dzil Nchaa Si' An (Mt. Graham)," resolution, 27 Mar 1995; National Council of Churches of Christ in the USA, "Press Conference Today: 1PM Eastern Arizona College, Thatcher, AZ in the Aravaipa Room, Activities Center Building," Press Release, 27 Mar 1995; The Racial Justice Working Group, National Council of Churches, "Racial Justice Working Group stands in solidarity with Apache people," *San Carlos Apache Moccasin* (Globe, AZ), 4 Apr 1995; Apaches for Cultural Preservation, "Racial Justice Working Group of the National Council of Churches issues resolution requesting removal of all telescopes from Mt. Graham," *San Carlos Apache Moccasin* (Globe, AZ), 11 Apr 1995; Andrea Lee Smith, *Sacred Sites, Sacred Rites* (American Indian Community House and the National Council of the Churches of Christ in the USA, 1998), 1-62; Suzan Abrahams, "The League of Indigenous Sovereign Nations," *Cultural Survival Quarterly*, vol. 22, no. 4, (31 Jan 1999).

integrity of our ancestral landscapes and on the advent, within non-Indian society, of greater respect for our ways,” wrote Ramon Riley, the Cultural Resources Director for the White Mountain Apache Tribe, to Ohio State University president Gordon Gee in 1997.¹⁵⁶⁹ The health of the forest and the mountain is also essential to the non-human species that live on and in Mount Graham, especially the critically endangered Mount Graham red squirrel who, like the Apache people, also have no other mountain which can sustain them. The simple truth is that any hope of survival for the species rests on the removal of the telescopes from the mountain. The Apaches agree.

Among many activists and opponents to the astrophysical development on Mount Graham, lawyer Michael Nixon has noted that the “Mt. Graham project permit is revocable under its terms” with the federal government. In an email, Nixon cited a newspaper article that stated, “Free Permit Can Be Revoked by Sec. of Agriculture ‘in the public interest.’ U.S. Financial Liability Limited to Maximum of \$10,000 by Permit Terms.” The reality is that UA’s Board of Regents paid nothing to acquire a special use permit that can be “unilaterally revoked if it is determined to be ‘in the public interest’” as a condition of the permit. The U.S. government would pay a maximum sum of \$10,000 for the removal of the telescopes. For years, the White Mountain Apache Tribe has been requesting that the Forest Service take this action.¹⁵⁷⁰ Many activists are quick to point out that just as the London Bridge was relocated from London, England, to Lake Havasu City, Arizona, the three telescopes can be removed from Mount Graham and rebuilt elsewhere. Obviously this will cause some discomfort for the astronomers, but they will regain use of their telescopes and the Apaches will be able to continue reconnecting to one of their most sacred mountains.

As activist Giovanni Panza wrote in 1997,

¹⁵⁶⁹ Ramon Riley to Gordon Gee (President, Ohio State University), letter, 8 Jan 1997.

¹⁵⁷⁰ Michael V. Nixon to lists.gardencity.net, email posting, 29 Jul 1999, <http://lists.gardencity.net/pipermail/acra-1/1999-July/005623.html>, accessed 13 Nov 2003. See White Mountain Apache Tribe, resolution, 15 Jul 1999; White Mountain Apache Tribe, Resolution No. 12-2003-296, 17 Dec 2003; Mount Graham Coalition, “Another Apache Tribe Urges U.S. To Protect Mt. Graham Sacred Land,” News Advisory, 29 Aug 1999, www.yvwiiusdinvoohii.net/News99/0899/MTG990829protect.htm, accessed 13 Nov 2003.

Resolution does not have to be fair to both the parties [astronomers/Jesuits and Apaches/environmentalists]. Before conflict resolution can be fair it has to be just. In this case a win-win conflict resolution strategy would be equal to asking a robber to share his booty. In many situations it is better if one side wins over the other. If the ultimate value is not fairness but truth, there will be losers and winners.¹⁵⁷¹

That the Apaches have been able to limit the astrophysical development on Mount Graham suggests less that they have been the winners; rather, according to Jack Trope of the Association on American Indian Affairs, it “is a tribute to the strength of their beliefs and the tenacity of the Apache and their supporters in the face of great obstacles.”¹⁵⁷² Still, as Tex Hall, the president of the National Congress of American Indians, complained in 2002, “Our sacred places are not held in high regard by the federal government.” It is time to change that. In her most recent work, LaDuke calls on Americans to “recover the sacred.”¹⁵⁷³ The return of Mount Graham to the Western Apache people would be a significant olive branch and a positive step in the right direction.¹⁵⁷⁴ It would also go a long way toward achieving justice, peace, healing, and reconciliation between Western Apache communities and the dominant white society.¹⁵⁷⁵

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For over eight years (2001-present) I have placed myself, perhaps problematically, within my research project by actively participating rather than passively observing the phenomena I am studying. Through my roles as a doctoral student, a columnist, and a community leader, I have acted as an advocate, organizer, speaker, researcher, and

¹⁵⁷¹ Panza, “The Impaling of Apache Holy Ground,” 42.

¹⁵⁷² Jack F. Trope, “Existing Federal Law and the Protection of Sacred Sites: Possibilities and Limitations,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), 19, no. 4 (Winter 1996).

¹⁵⁷³ Winona LaDuke, *Recovering the Sacred: The Power of Naming and Claiming* (Cambridge, MA: South End Press, 2005).

¹⁵⁷⁴ Lee Davidson, “Tribes seek upgrade in land protection: Martin’s Cove sale’s foes fear a precedent,” <http://deseretnews.com/dn/view/0,1249,405009665,00.html?>, accessed 7 Jun 2002

¹⁵⁷⁵ See the excellent article by Edward C. Valandra, “Decolonizing ‘Truth’: Restoring More than Justice,” in Wanda D. McCaslin, ed., *Justice as Healing: Indigenous Ways—Writings on Community Peacemaking and Restorative Justice from the Native Law Centre* (St. Paul, MN: Living Justice Press, 2005), 29-53, as well as numerous books on restorative justice, reconciliation, and peacemaking.

writer.¹⁵⁷⁶ I have taken seriously the recommendations of preeminent scholars of Apache history and culture—Keith Basso, Elizabeth Brandt, Charles Kaut, and John Welch—as well as Vine Deloria Jr., who have argued that research without practical application, has little meaning for indigenous communities.¹⁵⁷⁷ I have simultaneously maintained a healthy skepticism that questions the myth of objectivity, especially while working with human communities.

But it is the words of Keith Basso that initially hooked me into this project and enabled me to understand what greater issues were occurring in the struggle for Mount Graham. In the mid-1990s, during the filming of the Swiss documentary, *Le Garçon S'Appelait Apache* (This Boy's Name was Apache), Basso offered the following insight:

The telescope project is unacceptable to Apaches because they view it as an act of blatant desecration. Much of the religious symbolism is derived from what we would call “natural form.” But it’s interesting to note that in the language there is no term that could be translated “nature.” The “nature/non-nature” distinction that seems to be part of a lot of Western philosophy is simply not present in this culture. To suppose that the mountain for traditional Apache is identical with its physical dimensions—its physical substance—is to miss the point entirely. The mountain has an inner form and an outer form, and beyond the outer form a set of properties that, for lack of a better term, we can refer to as “spiritual.” I know things about the mountain which I have no intention of revealing. I can say this much: that the recent concern for Mount Graham has as much to do with the fact that the telescopes are perched right on top of the mountain, and that they are in proximity to certain holy objects and substance, as anything else.¹⁵⁷⁸

The concept of the mountain as a being into and of itself, with inner form and outer form spiritual properties, caught my attention. I concluded, perhaps inaccurately, that the mountain’s inner form is what gives it life. It is a living entity in itself that must be afforded the reverence and respect that other life deserves. The physical, outer form, is what we can see and physically appreciate. Looking at the wide-seated green mountain in a sea of brown arid desert in itself is moving. Then there are all the properties that

¹⁵⁷⁶ See Melissa Nelson, “Toward A Post-colonial Ecology: Native Americans & Environmental Restoration” (Ph.D. diss., University of California, Davis, 2000).

¹⁵⁷⁷ Numerous personal communications with Keith Basso, Elizabeth Brandt, Charles Kaut, and John Welch, 2002-2010. Also see Vine Deloria Jr., “Where is the Indian Community?,” Lecture, University of Minnesota, 5 October 2000.

¹⁵⁷⁸ Stéphane Goël, dir., *Le Garçon S'Appelait Apache (This Boy's Name was Apache)* (Climage and Ardèche Images Production, 1995).

emanate even further out that give this mountain its great power and connection to the Apache. Because there is no deeper word in English, scholars have called this the spiritual connection. It is because of all of these three properties that the mountain is of great significance to the Apache people. It is easy to see why this mountain has been an important and irreplaceable part of their cultural identity and practices since, as they would put it, “time immemorial.”

I soon realized that few examples I have come across so accurately, to a layman, display the connections between Western Apache health, culture, and the environment, as Mount Graham. Indeed, culture defines how a people relate to the environment and the practices they use to maintain health and well-being. It defines attitudes toward the environment, attitudes toward health practices, and even more interestingly the role of nature and the environment in the process of health and well-being on an individual and community basis. I looked specifically at the Western Apache people who have struggled to protect the physical elements in their environment, like Mount Graham, that form a basis of their spiritual traditions and a basis of their health through spiritual practices and through healing plants that are part of their culture. I looked at the historic struggle they have been fighting to protect this mountain, which is a center of their physical environment that the culture relates to but also the center of cultural and community vitality.

What I also realized I knew but never previously noticed, is that there is more to health than the physical body. There are several other levels on which humans exist that must be engaged in order for the delicate balance of health to be maintained. Mount Graham engages the people on various different levels and essential thread in this balance, holding the culture together, securing identity, and creating health. The people have a relationship with this mountain as a living being. Many Apache people refer to it as a family member. An assault on the mountain by people who have no such relationship with it and who justify it by saying “Show me what’s so important and sacred about the mountain” and then proceed to deface it is like someone unknown coming up to your mother and slashing her face and having no remorse because they did not have a loving

relationship with her and could not see how you could. The insight into the mountain's sacredness comes out of relationship, not just sight or sound or the five physical senses. One must go beyond these mere senses and dig into their higher sensibilities—respect, humility, kindness. This is why the university authorities—and white leaders of genocide before them—have been able to engage in such acts of brash disrespect and arrogance. They first do not have a relationship with the mountain because their culture does allow it. Additionally, they have the arrogance to assume that other people have the same lack of relationship that they do.

I came to a conclusion—one which is not supported by all environmental protection organizations, residents near the mountain, or some Apaches—that my project was not just in documenting a history and making arguments regarding that history. As it became clear to me that the power has never and will never rest with the Mount Graham red squirrel, who stands in some circles as an actor for the Western Apache people, I realized that my work has a larger role to play. There is no post-colonial reality for the squirrel, just as there is no post-colonial history for the Western Apache people—or most Indigenous communities within the Americas for that matter. On October 11, 2002, as the University of Minnesota joined the telescope project on Mount Graham, Amnesty International proclaimed that indigenous peoples in the Americas are “Second-class citizens in the lands of their ancestors.” Amnesty International added that “Basic rights of indigenous communities, including the right to land and to cultural identity—in the use of language, education and the administration of justice—are systematically violated in a variety of countries.”¹⁵⁷⁹ Clearly the United States is one of those countries. The presence of colonialism in modern-day America became even clearer in 2002 when the University of Arizona approached the Forest Service about building the additional four telescopes to which they are allotted, pending studies that display that the squirrel

¹⁵⁷⁹ Amnesty International, Press Release, “Americas: Indigenous Peoples—Second-Class citizens in the lands of their ancestors,” <http://web.amnesty.org/library/print/ENGAMR010062002>, accessed 16 Nov 2003, or <http://asiapacific.amnesty.org/library/Index/ENGAMR010062002?open&of=ENG-399>.

population is recovering.¹⁵⁸⁰ They did not let their intentions be known to either the Apaches or the environmental protection organizations who are stakeholders regarding this place of spiritual and ecological significance. My history is an attempt to play a role in that process, in public policy, especially if UA approaches Congress for a third exemption to all environmental, cultural, religious freedom, and human rights laws.

Historian Douglas Brinkley once stated, about the era in which President Roosevelt created so many of the nation's parks and forests, including the Mount Graham Forest Reserve, that the "subject of land use—the question of what to do with the West—was the big issue between the end of the Civil War and the start of World War I."¹⁵⁸¹ I would argue that that question, a debate actually, continues to today. But it does not mean that we have to deal with twenty-first-century issues from the perspective of the late nineteenth and early twentieth century, nor through the eyes of Theodore Roosevelt. The animals, plants, and environment generally, and certainly Mount Graham and the Western Apaches specifically, deserve better treatment. San Carlos Apache Doreen Nosie, who survived from kidney failure and delivered a child in the process, once told German astronomers who were interested in joining the project, "I believed in my culture, when the best specialists in Arizona couldn't help me. I'm here and my child is here. You people are trying to take [Mount Graham] away from us. This mountain is our yard, we'll take care of it. We believe in ourselves."¹⁵⁸² It is time that the U.S. government and the citizens of the state of Arizona believe in the Western Apaches. They can "take care" of the mountain. Mount Graham, the mountain that was once a part of Western Apache traditional homeland, once a part of the original Apache reservation created during the 1870s, and became a center of the struggle for control of the Southwest during the nineteenth century, should be returned to the people who have known the mountain since time immemorial, the same people who look to *dzil nchaa si'an*, the

¹⁵⁸⁰ George Asmus (District Ranger, Safford Ranger District, U.S.D.A. Forest Service) to Robert Witzeman (Maricopa Audubon Society), letter, 1 May 2002; Arthur Rothstein, Associated Press, "Telescope feud never quits: Mount Graham observatory a legal battle," *Arizona Republic* (Phoenix), 9 Jun 2001.

¹⁵⁸¹ Edward Morris, "Teddy's crusade: Historian captures TR's role as environmental warrior," *Bookpage*, Aug 2009, 7.

¹⁵⁸² "German astronomers meet with Apache Survival Coalition," *San Carlos Apache Moccasin* (Globe, AZ), 29 Aug 1995.

home of the *gaan*, “the mountain spirits who give the Apache guidance, direction, knowledge and healing.”¹⁵⁸³ There are a number of examples throughout U.S. history when public lands were returned to Indian tribes for their use and management.

In two notable instances, both during the Nixon presidency, sacred lands were returned to native communities. In December 1970, Congress restored 48,000 acres, including Taos Blue Lake, to Taos Pueblo.¹⁵⁸⁴ On May 20, 1972, Nixon issued Executive Order 11670, which provided for the “Return of Certain Lands to the Yakima Indian Reservation.” Nixon’s action returned part of Mount Adams, which climbs to a height of 12276 feet, to the Yakima Tribe, thus ending at least four decades of attempted tribal recovery. At Taos Blue Lake, Mount Adams, and elsewhere, Indian tribes welcomed the return of these places to their control.¹⁵⁸⁵ According to historian Linda Parker, “Although the Yakima considered Mt. Adams to have special religious significance, they did not urge its restoration on the basis of its sacred nature.”¹⁵⁸⁶ It has been nearly 40 years since a campaign to return sacred ground was successful.¹⁵⁸⁷

The case of Taos Blue Lake has many parallels to Mount Graham. “In 1906, the sacred Blue Lake was appropriated from New Mexico’s Taos Pueblo for Carson National Forest. But the lake was the old village’s holiest shrine; for more than fifty years the Indians maintained a peaceful campaign to recover it,” according to anthropologist Peter Nabokov.¹⁵⁸⁸ “Modern Native American activism in defense of sacred sites and the quest for religious freedom owes its inspiration to the long but ultimately successful battle of

¹⁵⁸³ Karen M. Strom, “Mt. Graham and the University of Arizona Astronomers,” (n.d., probably early 1995), 7, <http://www.hanksville.org/voyage/misc/MtGraham.html>.

¹⁵⁸⁴ See Jack Page, “Sacred Ground: Landscapes as Living Spirit,” *Native Peoples* 20 no. 3 (May/June 2007), 26-32.

¹⁵⁸⁵ Linda S. Parker, *Native American Estate: The Struggle over Indian and Hawaiian Lands* (Honolulu: University of Hawai’i Press, 1996), 139-147, esp. 141.

¹⁵⁸⁶ Parker, *Native American Estate*, 147.

¹⁵⁸⁷ See Frank Waters, *The Man Who Killed the Deer* (Flagstaff, AZ: Northland Press, 1965); Severino Martinez, *The Taos Blue Lake Area ... an appeal from Taos Pueblo*, n.d., in Morris Edward Opler Papers, Carl L. Koch Library, Cornell University.

¹⁵⁸⁸ Peter Nabokov, *Native American Testimony: A Chronicle of Indian-White Relations from Prophecy to the Present, 1492-2000* (New York: Penguin Books, 1999), 1-2. See also, Alice Feldman, “Othering Knowledge and Unknowing Law: Colonialist Legacies, Indigenous Pedagogies, and Social Transformation” (PhD diss., Arizona State University, 1998), 6; David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000), 187.

the Toas Pueblo people of New Mexico to regain their sacred Blue Lake,” anthropologist Alfonso Ortiz once pointed out. Wrote Ortiz, “The return of Blue Lake and the 48,000-acre tract in which it is set is of unique historical significance because it marked the first time that the federal government returned a significant parcel of land to its original owner in the name of indigenous religious freedom.”¹⁵⁸⁹

The U.S. government should also take a cue from earlier examples of sacred land in national forests repatriated to Indian tribes. In 1911, for example, the U.S. government returned the Baboquivari peaks to the “Papago” (Tohono O’odham) Indian Reservation. Although the Baboquivari Forest Reserve was established on November 7, 1906, “President Taft later decided the Government should not proclaim any forest reserves on Indian reservations. He forthwith ordered the return of the Baboquivaris to the Papago Reservation.”¹⁵⁹⁰ Congress thus returned “the Papago’s sacred peak to Indian control.”¹⁵⁹¹ Eventually U.S. government-supported scientists placed telescopes on Kitt Peak, one of the two peaks near their sacred Baboquivari Peak. The problem of the telescopes on Kitt Peak would later be a source of friction between the federal government, astronomers, and the Tohono O’Odham people.¹⁵⁹²

In 1985, the U.S. government returned the sacred Zuni Salt Lake to the Zuni Tribe, but the Lake is still threatened periodically by efforts to develop a coal mine nearby.¹⁵⁹³ The Hawaiian Island of Kaho’olawe was used for bombing practice and the testing of bombs and munitions by the U.S. military from 1941 to 1990, at which time

¹⁵⁸⁹ Alfonso Ortiz, “American Indian Religious Freedom: First People and the First Amendment,” *Cultural Survival Quarterly* (Special Issue guest editor: Alfonso Ortiz), vol. 19, no. 4 (Winter 1996).

¹⁵⁹⁰ Charles R. Ames, “A History of the Forest Service,” *The Smoke Signal*, vol. 16 (Tucson: The Tucson Corral of the Westerners, Fall 1967), 123.

¹⁵⁹¹ Larry S. Allen, “Livestock and the Coronado National Forest,” *Rangelands*, vol. 11, no. 1 (Feb 1989), 15.

¹⁵⁹² Anne Minard, “O’odham sue to halt scope construction on Kitt Peak,” *Arizona Daily Star* (Tucson), 24 Mar 2005; Joel Helfrich, Dwight Metzger, and Michael Nixon, “Native Tribes Struggle to Reclaim Sacred Sites,” *Pulse of the Twin Cities*, <http://pulsetc.com/article.php?sid=1865>, 1 June 2005; Tom Beal, “Changes on way for S. Ariz. observatory [Kitt Peak],” *Arizona Daily Star* (Tucson), 13 Mar 2010, http://www.azstarnet.com/news/local/education/college/article_ab119cdb-c70e-5e90-90e3-e32fb8915c87.html, accessed 13 Mar 2010.

¹⁵⁹³ Jeffrey St. Clair, “The Battle for Zuni Salt Lake,” in *Been Brown So Long It Looked Like Green To Me* (Monroe, ME: Common Courage Press, 2004); Sacred Land Film Project, “Zuni Salt Lake,” www.sacredland.org/zuni-salt-lake/, accessed 4 Apr 2010.

President George H.W. Bush ordered an end to live-fire training, thus beginning the conveyance of the island to the state of Hawai'i. Eventually the Hawai'i state legislature established the Kaho'olawe Island Reserve. Native Hawaiians have begun the restoration of the island culturally and ecologically.¹⁵⁹⁴ In January 2000, the U.S. government returned 84,000 acres of federal lands taken just before the nation's entry into World War I, to the Northern Ute Tribe in Utah. This was one of the largest returns of federal lands to native people in U.S. history.¹⁵⁹⁵ In 2003, the Mole Lake Band of Sokaogon Ojibwes and the Forest County Potawatomi Community purchased the Crandon Mine and the mining company that operated the mine to protect the land.

American Indian history is too complex to write about in one article or to put into a sound bite for the nightly news. Yet all Euroamericans should be making an effort to understand more about the history and culture of the first Americans. U.S. national forests, like national parks, were often created as the result of forced dispossession and Indian removal.¹⁵⁹⁶ These places should be returned to the original inhabitants of North America. Doing so would assist tribal efforts to reclaim their traditions, more so than bribery programs of supposed efforts to provide educational assistance and experiences, or infrastructure development and job creation, has done for the Western Apaches during the past two decades.¹⁵⁹⁷

Conservationists struggle between protecting nature, like U.S. national forests, while at the same time considering returning native lands (Taos Blue Lake and Mount Adams, for example). Returning Mount Graham to the Western Apaches will aid not only

¹⁵⁹⁴ See the excellent article by Mansel G. Blackford, "Environmental Justice, Native Rights, Tourism, and Opposition to Military Control: The Case of Kaho'olawe," *The Journal of American History*, September 2004, 544-571.

¹⁵⁹⁵ Associated Press, "Indians get back land in deal to clean up Cold War waste site," *Star Tribune* (Minneapolis), 15 Jan 2000, A6; CNN, "U.S. land transfer to Utah tribe would be largest in 100 years," 14 Jan 2000.

¹⁵⁹⁶ Nancy Langston, *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (Seattle: University of Washington Press, 1995); Mark David Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (New York: Oxford University Press, 2000).

¹⁵⁹⁷ Booz-Allen & Hamilton, Inc., final report, "University of Arizona: Mount Graham Observatory Review Issues," Tucson, Arizona, 23 Oct 1991, 1-42; David Hoye, "Mountain of Trouble: UofA president opens dialogue, but Apaches say he can't hear," *The Phoenix Gazette*, 11 Dec 1991; Peter La Chapelle, "San Carlos tribal council supports survival coalition," *Arizona Daily Wildcat* (University of Arizona), 11 Dec 1991.

tribal ethnobotanists and Apache people but also environmentalists and biologists. Let Apaches hire Apaches and biologists to work on the mountain; create timetables for the removal of the telescopes, Bible camp, and summer homes; and participate in the strengthening of the various Western Apache tribes and their sovereignty—all efforts environmentalists would support. The examples of Boboquivari Peak, Taos Blue Lake, Mount Adams, Zuni Salt Lake, and Kaho'olawe show that such an idea can work.

There are a number of ways that the mountain could be returned to the Western Apaches. Western Apache people have clearly demonstrated the sacred connections and historical use of the mountain to have the mountain returned. Regardless, it is stolen land in the first place—taken not through any treaty negotiations, but rather through presidential proclamation. Congress could approve the return of lands for tribal management. Better still, the president could authorize through executive order the return of the lands to the San Carlos, White Mountain, Yavapai-Apache, Tonto Apache tribes. Given the precedents in this regard and given that the mountain was originally removed from reservation lands and turned into a federal forest, both actions by executive order, a presidential proclamation would be the most fitting action that the U.S. government could take regarding sacred Mount Graham and the Western Apache people. Pending an executive order, the government could engage the tribes in the maintenance of the landform of Mount Graham through the 1994 amendments to the Indian Self-Determination and Education Assistance Act that require the government to consider proposals from tribes “seeking to manage federal lands with ‘special historical, cultural, or geographic significance.’”¹⁵⁹⁸

More than any strategy, the time is long overdue for the U.S. president to sign a new executive order—one that does not take away land like so many of the nineteenth and early twentieth century proclamations, that does not create forest reserves, that does not deal with Indian religion and spirituality, and that does not deal with environmental justice. What the Western Apache tribes, possibly in collaboration with the Zuni Tribe, want, is a return, by executive order, of their sacred Mount Graham. The Apaches can

¹⁵⁹⁸ Julia M. Klein, “Whose Home on the Range?: Conservationists oppose Interior plan to let tribes manage federal land,” *Preservationist*, Nov/Dec 2003, 9-10.

then decide how long the lease for the telescopes should continue; whom they would like to have manage the forest, its history, sacred characteristics, and creatures; what times of the year will be closed off to visitors; and if any part of the mountain should be declared a Wilderness Area or a cultural area. Western Apaches would also have the option to return the name of Mount Graham to *dzil nchaa si'an*, just as names of locations in India, once mispronounced or renamed by the British, were returned to their “original” names during the last decade. That Mount Graham sits within a forest named after the Spanish colonizer, Francisco Vasquez de Coronado, is reason enough to at least change the name and get the mountain out of that particular national forest system. Few people involved in the Mount Graham struggle feel upset that efforts to rename the forest for the politician who sold out, Mo Udall, have failed.¹⁵⁹⁹ Certainly the insult of UA’s astrophysical development proposal, initially called the “Columbus Project,” remains. The colonizers of the fifteenth and sixteenth centuries have teamed up with present day colonizers such as universities and research institutions. But through presidential proclamation, the land could be restored to its original caretakers, the Western Apache people. The telescopes, as well as the roads and power lines to the summit could be removed. The summer homes on the mountain and the bible camp on its summit could also be removed. The future of Mount Graham and all of the species and supernaturals that inhabit that place should be placed in the hands of the Western Apache people. The examples are there. It will merely take a courageous effort to make it happen.

WWGD—What Would Geronimo Do?

Short of full-scale rebellion, we can imagine that Geronimo, one of the last holdouts against U.S. military campaigns during the so-called Indian Wars, who eventually surrendered in 1886, would be fighting for the rights of indigenous peoples everywhere and confronting the U.S. colonial past and present. In early 2009, the San Carlos Apache Tribe initiated an effort to “Inaugurate the Healing of the Past and Honor the Future.” In

¹⁵⁹⁹ See legislation by Morris “Mo” Udall’s relatives and Senator John McCain to rename the Coronado National Forest in honor of Morris K. Udall, one of the politicians who allowed UA to obtain a foothold on Mount Graham: “To redesignate the Coronado National Forest in honor of Morris K. Udall, a former member of the House of Representatives,” S.549, 106th Congress, 1st Session, In the Senate of the United States, March 4, 1999, 1-2.

a press release, the San Carlos Apache Tribe stated, “There is no need to convince anyone that the historical infiltration from the outside has impacted our way of life as well as our beliefs. We have become divided and have drifted away from our roots, our culture and our religious customs.” The tribal council’s statement was not only about the “historical remembrance of Geronimo’s passing nearly 100 years ago” but also about the “historical infiltration” about which in part Geronimo sought to halt.¹⁶⁰⁰ It was during Geronimo’s lifetime that reservation boundaries were established and then changed multiple times, the Camp Grant massacre occurred, and Mount Graham was taken by executive order and then turned into a national forest.¹⁶⁰¹

With regards to the sacred and ecologically unique Mount Graham, Geronimo would be calling for the federal government to return the entire mountain to the Western Apaches. He would call upon indigenous peoples everywhere to join him in this effort. Indeed, the time has come to give back, as the federal government has done on other occasions with other Indigenous peoples, Mount Graham to the Western Apaches. In fact, such a bold move would go a long way toward assisting with the health and healing of all Apaches to begin. Such actions are probable only if President Barack Obama would do as Nixon did and return a traditional cultural property to an American Indian tribe. If he stands by his words from the election year 2008, that he “supports legal protections for sacred places and cultural traditions,” anything is possible.¹⁶⁰²

Perhaps the U.S. government, and the University of Arizona and its research partners, should take its cue from efforts in Australia and elsewhere to get at truth and reconciliation. At the closing ceremonies of the 2000 Olympics in Sydney, Australia, the

¹⁶⁰⁰ San Carlos Apache Tribe, press release, “Apaches Inaugurate the Healing of the Past and Honor the Future,” n.d. (early Feb 2009).

¹⁶⁰¹ U.S. Grant, Executive Order, 9 Nov 1871; U. S. Grant, Executive Order, 14 Dec 1872; U. S. Grant, Executive Order, 5 Aug 1873; U. S. Grant, Executive Order, 21 Jul 1874; U. S. Grant, Executive Order, 27 Apr 1876; R. B. Hayes, Executive Order, 31 Mar 1877; U.S. Congress, Federal Statute, 30 Stat. 64, 7 June 1897; T. Roosevelt, Executive Order, 22 Dec 1902; T. Roosevelt, Executive Order, 22 Jul 1902. See especially <http://www.brown.edu/Research/Aravaipa/>, but also Chip Colwell-Chanthaphonh, *Massacre at Camp Grant: Forgetting and Remembering Apache History* (Tucson: University of Arizona Press, 2007); Karl Jacoby, *Shadows at Dawn: A Borderlands Massacre and the Violence of History* (New York: The Penguin Press, 2008); Ian Record, *Big Sycamore Stands Alone: The Western Apaches, Aravaipa, and the Struggle for Place* (Norman: University of Oklahoma Press, 2008).

¹⁶⁰² “Barack Obama’s Principles for Stronger Tribal Communities,” BarackObama.com.

music group Midnight Oil performed their 1988 hit song, “Beds are Burning,” before a worldwide audience. All band members wore black. On each of their shirts was printed the word “Sorry.” This political song is about giving native lands back to the Pintupi, a desert dwelling aboriginal people who were originally encouraged to leave and then were forcibly removed from their homes by the Australian government during the twentieth century until as late as the 1960s. In the late 1980s, at approximately the same time that the University of Arizona and its allies were lobbying for a Congressional exemption of all cultural and environmental laws, Midnight Oil stated,

The time has come to say “fair’s fair,”
To pay the rent, now, to pay our share,
The time has come, a fact’s a fact,
It belongs to them, we’re gonna give it back.¹⁶⁰³

¹⁶⁰³ Midnight Oil, “Beds are Burning,” *Diesel and Dust* (Columbia Records, 1987).

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