Moving Pictures, Empty Words: Cinema as Developmental Interface in the Chinese Reconstruction, 1932-1952

A DISSERTATION
SUBMITTED TO THE FACULTY OF
UNIVERSITY OF MINNESOTA
BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

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June, 2017

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Acknowledgements

This project unfolded across the period of nearly four years, and has benefitted from the support, advice and generosity of multitudes, both dear friends and strangers. The debts I have accrued are infinite, and my gratitude goes beyond those I have named here.

First of all, I would like to thank my dissertation committee, without whom none of this would have been possible. It is only through the unwavering support of my advisors Cesare Casarino and Jason McGrath that I have been able to take this project from its ill-formed nascence to completion, and I am immensely thankful for their generosity and patience. Tom Pepper, John Mowitt and Shaden Tageldin have all modeled for me, at one point or another, how to think, write and do scholarship. I have learned immeasurably from discussing my project with them.

Beyond my dissertation committee, a number of teachers I have studied with at the University of Minnesota have been formative for my intellectual growth, without whom this project would not have been conceived. I would like to thank Rembert Hüser, Bruce Braun, and Timothy Brennan.

This project has had a large number of interlocutors whose ideas have been indispensable to my work. To list only those with whom I've had the pleasure of meeting personally, I would like to thank Weihong Bao, Alice Lovejoy, Hadi Garabaghi, Verena Mund, Dong Xinyu, Ling Kang, Jean Ma, Yiman Wang, Kathy Morrow, Elizabeth Emrich, Cui Zi'en, Song Hwee-lim, Alexander Sedzielarz and Mia Liu, with whom I've had unforgettable and formative conversations on research topics of shared interest.

My first foray into the topic of educational cinema took place at the Permanent Seminar on the History of Film Theories in East Asia meeting at the University of Michigan. I would also like to thank the co-presenters and audience members at the panels I have presented on at the Society of Cinema and Media Studies, the Film & History, the American Comparative Literature Association and Association of Asian Studies meetings for their thought-provoking questions and comments.

My colleagues Akshya Saxena, Michelle Baroody, Brendan McGillicuddy, Adair Rounthwaite, Vanessa Cambier and Darwin Tsen have offered me measureless support in reading drafts in varying states of completion, discussing ideas and carrying me past my many bouts of writer's block. I would also like to thank my colleagues Andrea Gyenge, Niels Niessen, Courtney Gildersleeve, Chelsea Reynolds, and Shana Ye for being part of my graduate school community, offering me their encouragement and intellectual company.

A project based on historical materials depends much on the aid of institutions and those who work for them. During my research trips overseas and in the U.S., I received generous help from the archivists and professionals at the China Film Archive, the

CCTV-Scientific and Educational Programming division, the CCTV Documentary and Newsreel division, the Shanghai Municipal Archive, the Chongqing Municipal Archive, the Nanjing Municipal Archive, the Beijing Film Academy, the Rockefeller Foundation Archives, the United Board of Christian Higher Education in Asia Archives at the Yale Divinity School, the University of Minnesota Archives, as well as a large number of libraries in various parts of the world. I would like to thank Yao Chen of the University of Minnesota East Asian collection for patiently working with me to find pertinent materials. I would also like to thank Sun Jiansan, for guiding me to the archive of his father's work, as well as Chen Gang for offering his assistance in helping me access archival materials.

My extensive research trips would not have been possible without the support of the Social Science Research Council Mellon-International Dissertation Research Fellowship, the Harold Leonard Memorial Fellowship in Film Study, and the Thesis Research Travel Grant. In addition, the Community of Scholars Program Diversity Teaching Fellowship provided me with support during the first year of developing my project while in Duluth.

Minneapolis would have been too cold if it weren't for Jess, Kate, Peter, Kris, Jenean, and Jamie. Thanks to Amber, Dana, Rachel, and Sarah for being family, to my family for their love and for being the bearers of untold histories.

Abstract

Moving Pictures, Empty Words: Cinema as Developmental Interface in the Chinese Reconstruction, 1932-1952 is a genealogical study of the relationship between instructional technologies and uneven development. It focuses on the work of the Chinese educational film movement, which unfolded as a mélange of governmental and non-governmental initiatives over the course of the 1930s and 1940s. As I argue, educational cinema presented Chinese interlocutors with a "developmental interface," that is, an equivocal material and metaphorical framework for negotiating the technical, economic, and cultural asymmetries produced by modern imperialism and capital accumulation. Challenging unidirectional conceptions of media instrumentality, which are often based on flattening notions of the state and medium specificity, the project approaches the educational film as an interface, defined as a surface connecting heterogeneously structured realities, defined by distributions of workability and unworkability. Inserted at the rough edges between Confucian traditions of popular uplift, modern models of pedagogical discipline, and the international circulation of communication technologies, *jiaoyu dianying*/"educational cinema" comprised a particularly unworkable interface, caught between the dispersive temporalities of acute developmental unevenness, on the one hand, and the path-determining technological and institutional forms that defined international modes of media governance, on the other. As an interface for developmental desires, educational cinema united teachers, politicians, filmmakers, and engineers under a common framework, promising them a direct line to masses otherwise dispersed by social fragmentation, illiteracy, poor roads, dialect differences,

and an intensifying rural-urban divide. As a global aesthetic and technical reality, it subjected its users to a new, and no less unequal, milieu of international technology exchanges, expert knowledges, and mass-mediated visibility. Drawing on interdisciplinary methods of institutional history alongside the close reading of films, reports, diagrams, and teaching guides generated by Chinese instructional bodies, I show how cinema participated in the metamorphoses of institutional power, literary authority, temporality, and affective texture that defined Chinese Republican-era cultural crisis.

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Note on Translation and Abbreviation

All translations into English from Chinese are the author's own unless otherwise indicated in footnotes. For the Chinese names of places and persons, I use modern Mandarin pinyin for transliteration, unless such places and persons are widely known in English by other conventions (for example, Chiang Kai-shek, as opposed to Jiang Jieshi). Often, the institutions named in this study will have Chinese as well as English names that are not direct translations. In these circumstances, I use the English name on first mention with the Chinese transliteration in parentheses, for example The Star Motion Picture Company (Mingxing). I subsequently use the Chinese title, which tends to be better known in the scholarly literature. For readability, I write Chinese book, film, and periodical titles in their English translation, with the transliteration of the original title appearing in the notes. Abbreviations of organization names are based on their English translation.

Excluding the names of persons and places, I accompany the first appearance of terms, expressions, and titles left in the original Chinese with Chinese characters. Subsequent references to the same expression will be in *pinyin*, unaccompanied by characters. To refrain from breaking the flow of the text, however, I do not include full Chinese titles for films that I mention briefly in list form, unless the aim is for the informed reader to recognize the titles at hand. Full bilingual titles for the films in question can be found in the filmography at the end.

I cite oft-used anthologies fully in the first reference in every chapter, but will subsequently refer to them in abbreviations, for example *Zhongguo wusheng dianying* as *ZGWSDY.* The first reference will clarify the abbreviation used.

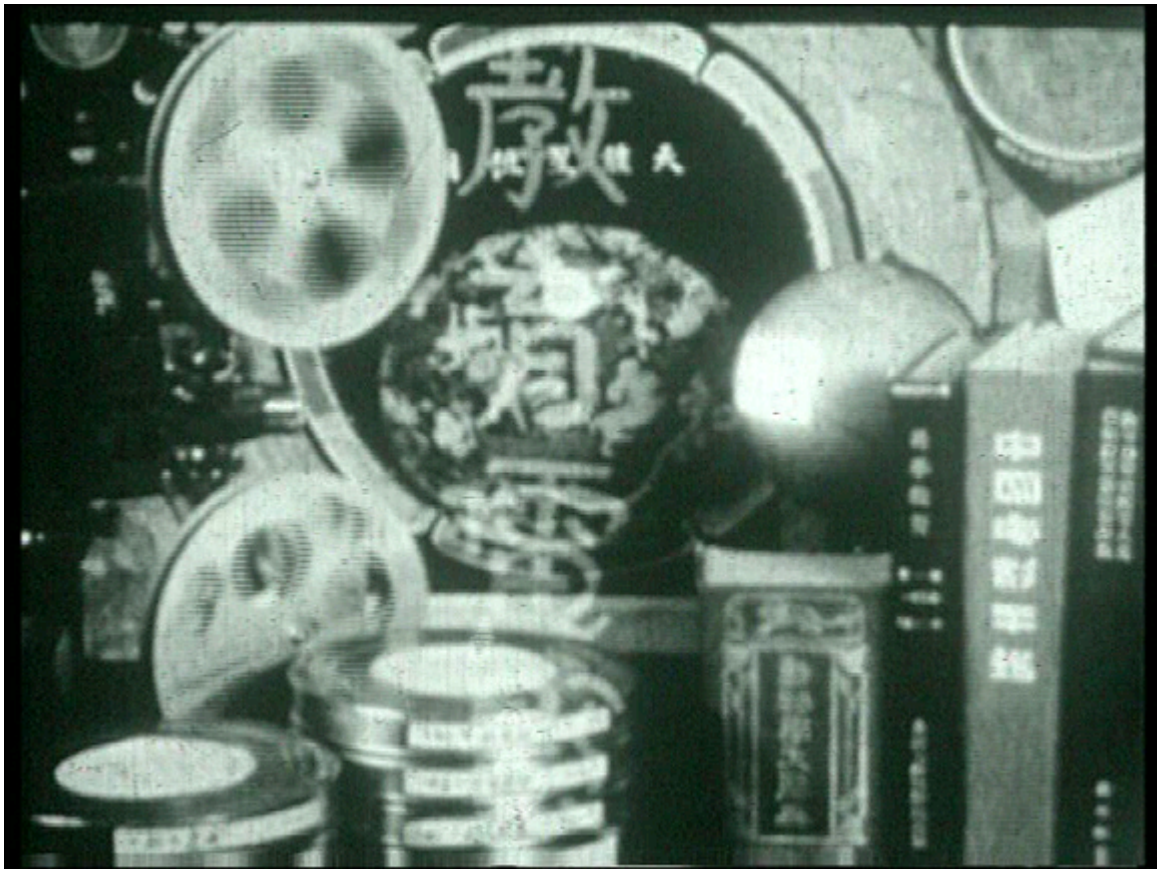

Figure 0-0 The Title Sequence of an Educational Film

Introduction: Interface and Uneven Development

We are presented almost with a still life: objects arranged carefully on a horizontal surface. On the right, a stack of books, whose titles include *The China Film Yearbook* and *The Dictionary of Scientific Terms.* On the left, symmetrically displayed, a stack of film reels; above them stands a 16mm film projector, running, projecting a small rectangle of light on a classroom globe that is nestled among the books. The globe, too, is spinning. In the background, barely discernible, there appears to be a circular diagram consisting of what could be a celestial, earthly, or microscopic formation. On the overall image is superimposed a title that reads "Educational Cinema," which gains in brightness as the shot continues.

Such was the title image found at the opening of a number of films produced by the University of Nanking (Jinling University) Department of Educational Cinematography, which released roughly one hundred titles on topics such as industry, geography, natural science, agriculture, defense, and civic training between 1935 and 1948. Mirroring the rhetoric of the display tables found at exhibits on educational technology, the shot offers a telling picture of the role cinema played in Chinese instructional practices during the Republican era (1911-1949). Placed on a table alongside books, diagrams, and a globe, the cinematic apparatus is no longer the symbol of a questionable entertainment culture catering to treaty port urbanites, but a venerable tool for teaching. The film reels offer the prospective teacher and student troves of knowledge equivalent to the entries in the dictionary or the articles in the *China Film Yearbook.* Like the books, the globe, and the diagram, the projector sits there on the table, without beholder or operator, a neutral object, to be actualized only in use. Unlike the

others, however, it emits an internal light—a film—proceeding to teach as if on its own accord. In the words of Sun Mingjing, who would become the head of Jinling's Audio-visual Department in the 1940s, the cinematographic apparatus, powered by electricity, supplies a "living education" as opposed to the "stiff" words on the page.[1]

Projecting a rectangle of light on the globe, cinema promised a form of automated enlightenment, yet the visual metaphor in the title shot is interrupted by the uncomfortable physics of its own display. Placed on the table alongside the books, the projector can but project a miniscule square onto the globe's moving surface. The intensity of the light in this rectangle compared to the rest of the still life results in its overexposure, preventing us from seeing what may have been spooled into the reels. A cut thus separates the two perspectives from which one can approach this metacinematic tableau, that of the viewer, who looks out at the large rectangle of the title shot itself, and the observers at the scene—the film crew—able to adjust their eyes and see the film unfolding in the smaller rectangle. The desire to show the apparatus as a metaphor of progress in educational technology would appear to have undercut its use.

This dissertation studies the role played by cinema in Chinese instructional practices during the mid-twentieth century. Focusing on the years between 1932 and 1952 (a periodization I will discuss below), I examine the history of the Chinese educational film movement, a term that designates the mélange of governmental and private initiatives that sought to place motion pictures at the center of nation-state pedagogy. Linked to the authority of international models, the educational film movement popularized "educational cinematography" or *jiaoyu dianying* (教育电影) as a

[1] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," *Dianying yu boyin* 3.7-8 (1945), 25.

circulating mode of institutional media practice.[2] This dissertation tracks the efforts of filmmakers, government officials and educators to adapt "educational cinematography" (or educational cinema for short) to the circumstances of China as a space of semi-colonial modernity. As I argue, educational cinema did not arrive in China fully armed, but acquired its consistency in synergy and friction with existing institutions and practices. As a term that suffered from metaphorical promiscuity and a wealth of metonymical cognates, educational cinematography interfaced a range of social practices, including Confucian traditions of popular uplift, the modern school, Western models of adult education, the commercial film industry, and global networks of communication technologies. The educational film was not just one thing, but an organizing term that connected commercial feature films with non-fiction shorts, tethering together the commercial film industry, the state, and educational bodies. As I argue, it offered its interlocutors what I term a "developmental interface," defined as a material and metaphorical framework enabling users to negotiate the technical, economic, and cultural asymmetries produced by modern imperialism and capital accumulation, whether in imagination or fact.

Interfaces, however, comprise both mediums and thresholds. As surfaces that bridge heterogeneous systems, they both connect and divide, connect because they divide. As an interface for developmental aspirations, educational cinema brought teachers, politicians, filmmakers, and engineers under a common framework, promising them a direct line to masses otherwise dispersed by social fragmentation, illiteracy, poor roads, dialect differences, and an intensifying rural-urban divide. It authorized the dream that

[2] I render *jiaoyu dianying* as "educational cinematography" here in order to highlight the international nomenclature from which it was translated.

one day "scholars and illiterates can freely converse and great leaders can communicate with street peddlers and servants"—to quote one practitioner.[3] On the other hand, such dreams had an opaque side, dependent on the labyrinthine conditions defined by the asymmetries of global technical networks. Contingent on the renewed availability of projectors, films, transportation, electricity, screening architectures, and trained labor, educational cinema subjected nation-state pedagogy to new forms of developmental unevenness, inextricable from the mid-twentieth century milieu of international technology exchange, expertise, and mass-mediated visibility.

I base my conclusions on extensive research in archival, print, and audiovisual collections in China and the U.S., focusing on recently discovered instructional films produced by Jinling University (The University of Nanking), commercial fiction films "of educational significance," and a wide range of sources documenting the production, distribution, and use of cinema within educational spaces. I approach these materials, on the one hand, as documents for an institutional history of educational cinema in China, bracketed by the founding of the National Educational Cinematographic Society of China (NECS) in 1932 and the Chinese Communist Party (CCP) restructuring of the school system and film industry in 1952. On the other, I interpret the documents as texts that, on a formal level, illuminate the crises of authority and linguistic power faced by Chinese elites in a period defined by radical shifts in the relationship between writing and speech. Shorn of the authority originally invested by the command of literary Chinese diction, and compelled to go beyond the spatial enclosures of formal schooling, mass educators looked to cinema for its logistical function. Primarily using silent films with lecture

[3] Sun Mingjing, "Zhongguo wenhua dageming zhong de yi ge xiao shiyan," *Yingyin* 7.8 (1948), 91.

accompaniments, educators sought in cinema the referents for what they feared to be "empty words." The same technological solutions, however, subjected teaching to new determinants such as electrical infrastructure, celluloid availability, and international visual idioms. By means of close analysis of films and exhibition practices, I show how the frictions between contrasting pedagogical modes manifested disjunctures between writing, speech, and the cinematic image.

A 1932 visit to China by the League of Nations' International Educational Cinematographic Institute (IECI) representative Baron Alessandro von Sardi opens my historical brackets. Although Chinese commentators had long discussed cinematography in educational terms, it was not until Sardi's visit that the formal phraseology of *jiaoyu dianying* (educational cinematography), a term that, as I show, generated many cognates, achieved widespread circulation. The National Educational Cinematographic Society, founded in response to Sardi's visit, soon became recognized as the China-branch of the IECI and coordinated activities between filmmakers, pedagogues, and the government. Similarly, while cinema's educative function did not disappear during the first seventeen years of CCP rule, but was arguably heightened, the dismantling in 1952 of the Jinling University Audiovisual Department, the flagship of Chinese educational film production, spelled the end to "educational cinematography" as an institutional entity, defined by a specific coordination of technologies, actors, and networks. In the aftermath of the CCP victory in 1949, "educational cinematography" was replaced by a generalized educative imperative in studio films and the "scientific and educational film" (*kexue jiaoyu dianying* 科学教育电影), which produced instructional shorts.

For the purposes of my analysis, ebbs and breaks in institutional and terminological continuity are important, since in them one finds the shifting concretions of a volatile technical-cultural assemblage. Over the course of the period I cover in my study, educational cinema was also known as "cinematographic education" (*dianying jiaoyu* 电影教育), "electrified education" (*dianhua jiaoyu* 电化教育), "audiovisual education" (*shiting jiaoyu* 视听教育) and "sight and sound education" (*yingyin jiaoyu* 影音教育). While pointing to similar practices, each of these terms linked motion pictures to different metaphorical and metonymical constellations, implying sometimes slight and sometimes significant shifts in its object's definition. Language is part of the assemblage of educational technology, and my work seeks to register the degree to which educational cinema acquired its consistency through what Lydia Liu calls "translingual practice," or the "crossing of analytical categories over language boundaries."[4] Situated in a volatile node of the global translation network, Chinese educational film practitioners grounded themselves on international precedents: they translated, copied, borrowed, mistranslated, repurposed, and misquoted. As with all translingual practice, something of the original is degraded while something else is invented. Sometimes it is indeed impossible to tell the difference between degradation and creation. Compared to literature, translations in technical fields are less forgiving of linguistic indeterminacy. In them, ambiguity will often render a discourse unworkable. When words do not cohere in a more-or-less precise way, their objects dissipate into blurs of connotation and metaphoricity (as I discuss in Chapter 3). Basic English promoter and New Critic Ivor Armstrong Richards once

[4] Lydia Liu, *Translingual Practice: Literature, National Culture, and Translated Modernity—China, 1900-1937* (Stanford: Stanford University Press, 1995), 7.

lamented "the peculiar fluidity, opportunism, and irresponsibility of the Chinese attitude to meanings," citing, among other things, the degree to which many translation choices of scientific terminology into Chinese were made for literary flourish rather than systematicity.[5] Such observations cannot be refuted with an appeal to cultural relativism, since they have as their object not "culture" as such but the specific textuality of scientific, technical, and institutional systems. They may speak, rather, to the linguistic and cognitive path dependencies encoded into modern science, technology and institutional forms as they are adapted to new contexts, whether under the guise of colonial administration or anti-imperialist self-strengthening.

The question of uneven development hence looms large in my analyses. As I elaborate later, I take the term not only to refer to the large-scale asymmetrical distribution of wealth and industrial capacity across the world, but also to far smaller scales where unevenness becomes visible in the friction between institutions and technologies or slippages between words and what they mean. Chinese practitioners of educational cinema were well attuned to the frictions and slippages of developmental unevenness, and in fact developed a vocabulary to speak about them. As I show in Chapter 1, the idea that cinema could serve as a remedy for the risk of the educator engaging in "empty talk" (*kongkou shuo baihua* 空口说白话) was emblematic of a deep-seated developmental anxiety, the fear that the speech of educated intellectuals, full of Western lexicography and newly forged grammatical patterns, would fail to command authority or even comprehension among the masses. The rift between elites and masses, a

[5] Ivor Armstrong Richards, *Basic in Teaching: East and West* (London: Keegan, Paul, Trench, Trubner and co., 1935), 33.

well-known *topos* of modern Chinese studies, is in this dissertation given a technological and logistical valence. As I argue, educational cinema offered elites a way to short-circuit the prevailing socio-cultural problems of language reform, literacy education, and literary reform by shifting the locus of enunciation onto the audiovisual aid. "Empty talk" is saved by cinema's "real impressions," yet the latter had a tendency to question who is even speaking by dispersing enunciation into uneven global networks. In the first three years after the founding of NECS, this unevenness manifested itself in educators' dependence on the feature film industry, which worked with its own set of globally circulating narrative idioms, appearing incompatible with the agenda of rigorous instruction (Chapter 1). Even after the Chinese production of dedicated instructional material kicked off in 1935, Eastman Kodak and later United States Information Service (USIS) titles remained the majority of the educator's film supply, complicating pedagogical designs with alien agendas encoded in visual rhetoric. Here, although my project's geographical parameters remain those of Chinese "national" cinema, the nation appears not as an essential unity but as a node constituted by its relationship to an international network. Uncritical appeals to the expansiveness of the transnational against the narrowness of the nation inscribe contemporary neoliberal agendas into academic method. This study will be unabashedly about nation building, but conceiving the latter as a shape-shifting dream envisioned on the surface of border-crossing interfaces. An attention to interface, as I will detail in the next section, promises to shift the question of uneven development from the sociological, political, and economic register into the pores of language and representation as texture. As I show in my analysis of Chinese-produced industrial education films in Chapter 2 and geography and scenery films in Chapter 4,

domestic production did not obviate the problems of uneven enunciation but shifted their locus from the lecture hall into signifying textures of the films themselves. These uneven signifying textures were, in turn, compounded by the imaginative and logistical problems surrounding the distribution and exhibition of the educational film.

A close reading of the films, monographs, teaching guides, technical manuals, theoretical essays, and screening reports of Chinese educational film practitioners is, in a certain sense, like listening to a radio signal at the edges of the band, where signal and noise become indistinct. Who is in fact talking here? Is it the Chinese educational practitioners, with developmentalist and nationalist aspirations? Or is it in fact the imperialists, who have coded their perspective and voice into a technology that is being used to combat them? The answer, of course, will be equivocal. One does not hide the fact that early Chinese educational film practitioners were groping in the dark, their discourse marked by clumsy diction, unattributed translations and mistranslations, unstable terminology, deference to Western models, reprinted falsehoods, as well as the more general unavailability of equipment, steadfast political interference, elitist attitudes, and above all precarious finances. From one perspective, these efforts reveal themselves as degraded pirate copies of already problematic Western practices of media governance. At the same time, one cannot deny that in this enunciative poverty, this inability to get things done with words and otherwise, there is invention, or better, the imprints of a "life" caught between uneven registers of time and space. Whereas a teleological approach would read this enunciative poverty as the birth pangs of a "period of early development," as indeed Chinese language histories approaching this material have, here

I will leave this gesture undone.[6] Instead, my approach is archaeological in the Foucauldian sense, insofar as in analyzing the statements of Chinese educational cinema—that is, its films, proclamations, guides, and diagram—I aim not to fill up their enunciative poverty with meaning, but "restore [the] statements to their pure dispersion."[7] "The function of enunciative analysis is not to awaken texts from their present sleep, by reciting the marks still legible on their surface, to rediscover the flash of their birth," writes Foucault, "on the contrary, its function is to follow them through their sleep, or rather to take up the related themes of sleep, oblivion, and lost origin, and to discover what mode of existence may characterize statements, independently of their enunciation, in the density of time in which they are preserved, in which they are reactivated, and used, in which they are also—but this was not their original destiny—forgotten, and possibly even destroyed."[8] To restore statements to their pure dispersion means thus not "interpreting" them as fragments that the critic or historian must restore to their original locus of enunciation, but registering in one's writing about them the specific fragmentation and rarity that comprises their displacement in time and space. Discourse is, here, already bound with what it cannot enunciate, a "density of time" that both preserves and disperses. To further elaborate what this means for my specific project, I will proceed to introduce "interface" as a guiding methodological concept.

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[6] Peng Jiaoxue, *Minguo shiqi jiaoyu dianying fazhan jianshi* (Beijing: Zhongguo chuanmei daxue chuban she, 2008), kindle electronic text.
[7] Foucault, Michel. *The Archaeology of Knowledge and the Discourse on Language*, trans. A.M. Sheridan-Smith (New York: Pantheon, 1972), 121.
[8] Foucault, 123

Interface

The engineer James Thompson coined the term "interface" in 1869, defining it as the dividing surface between two insoluble fluids.[9] The term subsequently emerged into common usage by way of cybernetics, which evoked it to describe what both connects and divides humans from machine systems, or the surface at which "flesh meets metal."[10] The control panel of a hydroelectric plant, the keyboard on a computer, and the steering wheel of a car are interfaces because they allow human users to operate machines designed with vastly different spatial and temporal registers in mind. The user does not need to understand a computer as an object of technical engineering in order to operate its keyboard. She needs merely to know the alphabet and the placement of its keys. Here, one system—alphanumeric habit—is made to communicate with another without being mediated by "understanding" in the traditional, illocutionary sense. The mediation is rather determined by a machinic transposition of one form of organization onto another, an "allegory" in which two incommensurable systems are brought together by a structurally organized surface. As such, interfaces divide at the same time as they connect. When something becomes an interface, observes Alexander Galloway, "one significant material is understood as distinct from another significant material. In other words, an interface is not a thing, an interface is always an effect. It is always a process or a translation."[11]

I describe educational cinema as a developmental interface in order to highlight the degree to which it functioned, like a computer keyboard or a truck steering wheel, as

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[9] Brandon Hookway, *Interface* (Cambridge MA: Massachusetts Institute of Technology Press, 2014), 59
[10] Alexander Galloway, *The Interface Effect* (Cambridge UK: Polity Press, 2012), 30.
[11] Galloway, 33.

an instrument by which users—here considered in the multiple—accessed differently structured systems. Through cinema, for example, educators believed themselves to be able to garner the "sympathy" (*tongqing* 同情) of the masses (see Chapter 1), something that they did not believe they could elicit by means of existing pedagogical practices. To read educational cinema as interface is thus to attend to the surface separating cinema and education as distinct yet intertwined modern practices. At the same time, it is to read this relation not as one thing, where educators "used" cinema to do this or that, but as a multiplicity of control panels that work on many scales, in technical configurations, institutional arrangements, language, and in the everyday interactions between people and media forms. Moreover, such interfaces work in a bidirectional manner, enabling users to do certain things while creating new demands on their institutions, practices, and habits of cognition.

I recognize the degree to which such an analytical frame may appear counterintuitive, since it transports a term normally used to describe contemporary modes of participatory media to an audio-visual format more often known for its unidirectional mode of address. For a significant tradition within film studies, the spectator passively absorbs what has been encoded on screen, whether it is information, ideology, or the invocation to think critically. In this media story, it is only with the avant-garde, the film critic, and the advent of the videocassette recorder that audiences are offered the possibility of participating in the production of meaning. I have two responses to this objection. First, as I outline in the next two sections, recent scholarship in film historiography has shown the degree to which the model of passive spectatorship sidelines the role played by reception—mediated by things such as exhibition space and

paracinematic media—in constituting cinema as a veritable public sphere.[12] Moreover, centering the dark room and immobilized spectator of the commercial move theater, it ignores widespread participatory and institutional uses of cinema, for example intermedial classroom exercises where students are asked to use a film they have seen to answer discussion questions or fill out a chart. Second, I suggest that the question of participation in film studies has inordinately been focused on audience research, leaving aside the most prominent "users" of cinema, such as exhibitors, governments, educators, and the like.[13] While cautionary tales about the control of motion pictures by governments abound, few studies have asked what it means for a state institution to "use" cinema as a tool or a weapon. As a product of a complex process that involves artistic, technical, ideational, and physical labor, cinema has many control surfaces. State institutions, for example, have employed a variety of methods to gain control of cinema, including printed criticism, vague directives from top officials, the review of scripts, the awarding and censure of artists, the confiscation of prints, the mass criticism of negative examples, and the installation of political cadres in production departments, just to name a few commonly known examples.[14] Each method highlights a cinematic interface, since each places the complex and volatile system known as "cinema" in contact with other

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[12] For example, Miriam Hansen, *Babel and Babylon: Spectatorship in American Silent Film* (Cambridge MA: Harvard University Press, 1991).

[13] Recent studies, such as Zhuoyi Wang's remarkable *Revolutionary Cycles in Chinese Cinema, 1951-1979* (New York: Palgrave McMillian, 2014), have begun to reverse this trend, pushed in part by the demanding nature of the material itself. In this book, Wang examines cinema during the Mao-era as a participatory interface on which filmmakers, critics, and party cadres staked their lives and political careers.

[14] In the case of Chinese cinema, see Paul Clark, *Chinese Cinema: Culture and Politics since 1949* (Cambridge and New York: Cambridge University Press, 1987), Wang Zhuoyi (op. cit.), and Yomi Braester, "The Political Campaign as Genre: Ideology and Iconography in the Seventeen Years Period," *Modern Language Quarterly* 69.1 (2008), 119-140.

complex and volatile systems. While studies of the interaction between the state and cinema have tended to tell stories of the state's "interference" and the film artist's "resistance," the interface concept enables me to understand the state and cinema as mutually constitutive entities, given consistency precisely by the push and pull of the control surfaces that comprise their separating boundary.[15] The relationship is in no way symmetrical but it is not unidirectional, because perfect control can only take place with the destruction of its object.[16]

Hence, as Galloway argues, "unworkability" is an essential feature of interfaces, since in order for an interface to function as a medium for action or perception; it must also establish a frame or threshold. Older interfaces such as windows, doors, and arches provide paradigmatic examples of such distributions of connecting and dividing, transparency and opacity: a window frames a passage for light and air on the condition that it also assumes the wall around it to bar the passage of humans and animals. An interface is said to "work" when one forgets its distributive function, for example when one takes a window for its transparency alone without thinking much about its size, where it is placed, what it allows or does not allow. Meanwhile, an interface is said not to work when the framing function is continuously present, as in the case, for example, of the small windows of a prison cell, designed to heighten the function of the surrounding walls. As this example shows, however, "working" and "not working" are in the eye of

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[15] Clark's pioneering study on Chinese cinema after 1949, for example, describes it as a struggle between Party cadres and artists fighting for autonomy. See Clark (op cit.)

[16] This, of course, takes us beyond the usual semantic consistency of the word "control," which assumes its own imperfection. William Burroughs describes it as a matter of maintaining the upper hand in equilibrium with what one controls. See Gilles Deleuze "Postscript on Control Societies," in *Negotiations, 1972-1990*, trans. Martin Joughin (New York: Columbia University Press, 1995), 178. What I describe in this dissertation can be read as a genealogical fragment on control societies.

the beholder. For the corrections officer and prison warden, the windows work. For those who are trapped within the prison, they do not.[17]

Inspired no doubt by Martin Heidegger's insight that a tool appears as an object only when it breaks, Galloway argues that interfaces are comprised by a dialogue between the workable and the unworkable, what he alternatively terms "intraface," or "an interface internal to the interface."[18] My study of educational cinema as a developmental interface also studies it as "intraface," where the obstacles facing developmental aspirations manifest themselves on the surface of the interface itself. Taking educational cinema as intraface means attending to its intertwinings between transparency and opacity, usefulness and uselessness. As in the opening shot I describe above, cinema is at one moment a projected image glowing with the promise of another world, and at another, a dumb object, composed of such and such amount of plastic, aluminum, steel, labor, and electricity. Yet, as the opening shot shows, the very thingness of cinema also avails itself to a different form of educational optimism, one based on the spectacle of technology itself. This promise, however, remains distinct from the promise on the projected screen, although interconnected, and in between the two there is interface.

The final point I want to make in this methodological-theoretical discourse concerns what Galloway calls the "interface effect," namely, why in more ultimate terms "interface" appears to us, today, as an epistemological category by which things once known by the terms art, language, media, and technology come to acquire a different

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[17] Bolter and Grusin describe this as "immediacy" and "hypermediacy." In their analysis, however, they do not show how the two are necessary preconditions for each other since their theory of remediation tends to assume McLuhan's container theory of media (that the content of media is other media) that Galloway has shown to be unworkable. See Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge MA: MIT Press, 2002).
[18] Galloway, 40.

consistency.[19] It goes without saying that such a "turn" to interface is linked to the historicity of the present, where screens, keyboards, dials, knobs, mice, joysticks, movement sensors, trigger assemblies, and the like dominate how humans move, act, see, hear, touch and think. Does reading educational cinema in China from 1932 to 1952 as "interface" subject the past, and indeed a cultural context that understood its objects according to different terms, to a presentist common sense? Is it not anachronism to the highest degree as well as an act of cultural domestication? Such interfacings of the past and the present are as concerning as they are unavoidable. To picture the past as the past knew it, or others as others know themselves, is not only impossible, but also an irredeemably presentist endeavor (in both its temporal and relational sense). By lending other space-times their aura of absolute uniqueness one succeeds in shutting the display case, so to speak, on them, thus foreclosing any questions they may have to pose to the present. As semi-transparent interfaces, however, display cases too both foreclose and enable, and here one encounters all the problems faced by the curator, the museum architect, and the architectural engineer. Without display cases, temperature control systems, state archives, and self-serving scholars (either working for socialist states or liberal-democratic institutions), other space-times would rot. This project on developmental interface is also a project on the "intraface" of contemporary film and media studies, third world development studies, and area studies, although the latter ultimately do not comprise my object. In using "interface" in its presentist sense to describe what my Chinese interlocutors in the Republican era would have variably called

[19] "Interfaces themselves are effects, in that they bring about transformations in material states. But at the same time interfaces are themselves the effects of other things, and thus tell the story of the larger forces that engender them." Galloway, vii.

a "tool," a "weapon," an "art," or a "living education" (*huo de jiaoyu* 活的教育), I set out to map the indeterminate relations between past and present, the innumerable and tangled lines of force that connect and divide mid-twentieth century Chinese educational film and the Anglophone academe.[20] It should be noted, however, that the word "interface" will come up rarely in the body of the dissertation, where instead, I take up the figures used by my historical interlocutors, which will serve to de-frame the necessary frame I am establishing in the introduction. This does not subtract, however, from the fact that the concepts, histories, and embodied common sense specific to the North American present permeate my analysis. There is no right way to balance presentess and pastness, domestication and foreignization. There is only the hope that in the process of close-reading—and here this will mean the close attention, both literary and tactile, to the texture of films, technologies, and discourses—one will be able to generate a genealogical fragment capable of registering, and perhaps even momentarily inhabiting, the troubling imprint of a common sense different from the one that we mis-recognize to be our own.[21] I will now take the time to lay out a few of the contemporary discourses that give my project consistency.

Cinema and Developmental Unevenness

As I note above, developmental unevenness calls to be understood in two senses: first, as a specific geographical distribution of technological, cultural, and economic

[20] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," 25.
[21] "I am no doubt not the only one who writes in order to have no face," says Foucault. Foucault, 17.

power associated with the histories of modern colonization and imperialism; second, as a more general principle by which differing sectors within a given society develop at different speeds, and hence inhabit different temporalities. In the many contentious conversations about the term that have occurred since Marx coined it in the *Grundrisse,* either one or the other sense comes out on top.[22] Louis Althusser*,* for example, raises unevenness to a universal law, which "does not concern imperialism alone…but absolutely 'everything in this world'" thus inhabiting the essence of contradiction as such.[23] Echoing others, Neil Smith has highlighted the dangers of such universalism, insisting instead on the geographical and economic specificity of unevenness under capitalism.[24] I will not have the space here to revisit these conversations except to observe that the question they occasion is thoroughly epistemological, concerning at bottom the irreversible effect of capitalism on the shaping of conceptual categories. If we may say that unevenness—that is, the differential speeds of different social sectors—is universal, it is only became capitalist deterritorialization has given us the thought of social multiplicity, indeed of "society" (*Gesellschaft*) as multiplicity to begin with. Conversely, if we are to say it is historical, from what perspective may we describe that history?

The "spatial turn" in humanistic and social scientific research in the recent three decades is part of this historicity. In it, the emergence of scale and geography as

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[22] Marx appears to be using the word in the second sense, insofar as he raises it when discussing why form in art appears to develop slower than political economy. Karl Marx, *Grundrisse,* Trans. Martin Nicolaus (New York: Penguin, 1973), Marxists.org, https://www.marxists.org/archive/marx/works/1857/grundrisse/ch01.htm (Accessed 20 May, 2017).
[23] Louis Althusser, *For Marx,* trans. Ben Brewster (London: New Left Books, 1977), 200.
[24] Niel Smith, "On the Necessity of Uneven Development," *International Journal of Urban and Regional Research* (1986), 88-104.

methodological problems has enabled a reframing of the locus of analysis away from the nation and its development, but toward decentralized networks that are in principle transnational. In film and media studies, this has meant the emergence of the "transnational" as a category of analysis, which displaces the national cinema paradigm which had once dominated discussions of cinemas outside Hollywood.[25] Much of this research has, however, has staked its contribution on a naturalized concept of space, where "transnational" assumes the pre-existence of national borders, across which films, capital and skilled workers flow. It is imperative, Smith suggests, to instead understand space as a process, and hence the *product* of historical forces, within which, I should add, representations of space play a decisive part. To return to film studies, this would involve recognizing not only the way in which films, equipment, expertise, and capital travel across global, national, or international boundaries but also how their movement is constitutive of these categories.

This dissertation is "transnational" to the extent that I follow films, equipment, models, and expertise across national borders. These films, equipment, models, and expert knowledges in turn embed their users in pictures of national and international space. These pictures are, in turn, dissonant with each other and internally. In Chapter 1, I analyze how the unregulated transnational circulation of fiction and nonfiction films in and out of China's treaty ports comprised a staging ground for the national cinematic imagination, where the dissonance between screen images and what elites saw to be national needs gave rise to impassioned appeals for domestic production. Meanwhile, in

[25] In the case of Chinese cinemas, for example, volumes such as Sheldon Lu ed., *Transnational Chinese Cinemas: Identity, Nation, Gender* (Honolulu: University of Hawaii Press, 1997), and Yingjin Zhang, *Cinema, Space, and Polylocality in a Globalizing China* (Honolulu: Hawaii University Press, 2010).

Chapter 4, I argue that Chinese geographic and scenery films took part in a struggle with U.S. and Japanese travel films over the rights to landscape. In both chapters, cinema's spatial characteristics comprise *problems* for educators, filmmakers and politicians, spatiotemporal knots where they could no longer continue to think and act in the way that they were accustomed to thinking and acting.

In this arena, Matthew Johnson's work on the relationship between international film culture and considerations of Chinese state sovereignty has been germinal for my thinking. In his doctoral dissertation, Johnson traces the development of state cinema practices in China since 1895, arguing that the common sense among elites tending toward the institutions of centralized control did not belong to any particular regime, but was the result of structural characteristics of twentieth-century state-building in the semi-colonial periphery. On the one hand, Chinese elites interpreted the unrestrained circulation of foreign visualizations of China, often degrading to China and Chinese, in films of the first half of the twentieth century as a form of imperial encirclement and sovereignty violation.[26] On the other, they sought out media governance models from the same international sphere, and thus built institutions that subjected cinema to the epistemological *a prioris* of modern statecraft. Borrowing James C. Scott's formulation "seeing like a state," Johnson demonstrates the degree to which policy planners and intellectual elites engaged cinema through frames such as propaganda, *Kultur* (*bunka/ wenhua/*文化), public opinion, and national identity, thus reducing "cinema" to

[26] Matthew D. Johnson, "'Journey to the Seat of War': The International Exhibition of China in Early Cinema," *Journal of Chinese Cinemas* 3.2 (2009), 110. The concept is fully developed in Matthew Johnson, "International Wartime Origins of the Propaganda State: The Motion Picture in China, 1897-1955" (Doctoral Dissertation University of San Diego, 2008).

manageable categories.[27] Like the proliferating railroad and telegraph networks owned by international interests, the movies, as Andrew Jones argues, "presented themselves to Chinese viewers not as an ineffably and unalterably foreign form, but as a technical apparatus, a system of distribution and exhibition, a mode of spectatorship, and a set of cultural products dominated by foreign financial and ideological interests."[28] As such, cinema also rendered itself available to modes of statecraft that, like state monopolies on rail and telegraph, sought to curtail its volatility and transform it into a public utility.

Johnson's dissertation, published so far in articles fragmented across journals and book volumes, remains the only English-language study to deal substantially with my archive, including in its purview the work of the NECS, Jinling University, and the Jiangsu Mass Education Center in Zhenjiang, put alongside other organs such as the Central Propaganda Ministry and the filmmaker Luo Jingyu, who made newsreels for the Nationalist Party (Guomindang) founder Sun Yat-sen in the 1920s.[29] In his breadth, however, Johnson subsumes educational film within a broader propaganda function, which although prescient does not account for its specificity at the intersection of governmental and non-governmental organizations. Similarly, James Scott's "seeing like a state" formula, which aggregates state vision into a homogenous and flattening gaze, does not account for the heterogeneity of state institutions, an essential feature of the

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[27] Johnson, 23-4.

[28] Andrew Jones, *Yellow Music: Media Culture and Colonial Modernity in the Chinese Jazz Age* (Durham: Duke University Press, 2001), 12.

[29] See in addition to the above Johnson, "The Science Education Film: Cinematizing Technocracy and Internationalizing Development." *Journal of Chinese Cinemas* 5.1 (2011), 31-53; Johnson, "Propaganda and Censorship in Chinese Cinema," in *Companion to Chinese Cinema,* ed. Yingjin Zhang (Malden MA: Wiley-Blackwell, 2012), 153-178; and Johnson, "Propaganda and Sovereignty in Wartime China: Morale Operations and Psychological Warfare under the Office of War Information," *Modern Asian Studies* 45.2 (2011), 303-44.

Guomindang state, in which the "theory of the unitary Party-State outpaced its institutional capacities."[30] Neither does it ask the pressing question I have illustrated above, of how cinema allowed the state to "see." By examining educational cinema as specific interface, I take a disaggregated view of the state as the *effect* of institutional modes as opposed to their organic unity, thus opening up the possibility of malfunctions, excesses, and insubordinations.[31]

Johnson's discussion of the Chinese educational cinema as tantamount to "the creation of uniform opinion as well as scientific knowledge" raises a second issue, more directly linked to uneven development.[32] It is namely the problem of the nation as an "imaginary community," in the words of Benedict Anderson.[33] Showing how bureaucratic communities and print capitalism serve as material bases for imagining national autochthony, Anderson argues that the nation constitutes itself as a space by rendering time empty and homogeneous, absorbing places and events into a simultaneous "meanwhile."[34] Arguably, Anderson's germinal study has offered one of the conditions of possibility for thinking the nation as a constituted space, by subsuming the nation-space within capitalism's "annihilation of space by time."[35] Harry Harootunian, however, finds Anderson's insistence on temporal homogeneity reductive, arguing that the latter is

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[30] William C. Kirby, "The Chinese Party-State Under Dictatorship and Democracy on the Mainland and on Taiwan," in *Realms of Freedom in Modern China,* ed. William C. Kirby (Stanford: Stanford University Press, 2003), 121.
[31] See for example Timothy Mitchell's essay on "the state effect." Mitchell, "The Limits of the State: Beyond Statist Approaches and their Critics," *The American Political Science Review* 85.1 (1991), 77-96.
[32] Johnson, 162.
[33] Benedict Anderson, *Imagined Communities* (New York and London: Verso, 1983).
[34] Anderson, 7.
[35] Karl Marx, *Grundrisse,* Trans. Martin Nicolaus (New York: Penguin, 1973), Marxists.org, https://www.marxists.org/archive/marx/works/1857/grundrisse/ch10.htm (Accessed 20 May, 2017).

too willing to "bypass instances in which a specific present animates and conjures up the past to supply it with a new configuration."[36] The problem, for Harootunian, is not only that modern projects to annihilate distance and time remain incomplete. Rather, in the course of their effort to transfigure local habits, geographical barriers and the like, they find allies in, and learn to live with, what they sought to supersede. History must, therefore, be a "history of dissonant rhythms," as Harootunian puts it, sensitive to the "complex interrelationships between spatial densities and temporal indexes…without reducing one to the other or displacing one by the other."[37]

My argument is that cinema, a medium defined perhaps most poignantly by its ability to capture the passage of time, participated in this "history of dissonant rhythms." Following Armand Mattelart, I am less interested in painting cinema as an instrument for totalization—whether ideological or aesthetic—as examining the "link tying a medium to the historical era and geographical space in which it functions."[38] Nation-building, insofar as it seeks to unite the multiple temporalities of divergent social sections in a given territory, makes use of interfaces by which to manipulate other patterns of space-time. Interfaces of this type from the European nineteenth century included the school, the prison, the factory and the hospital, which by means of their meticulous regulations of movement and time, stood as fortresses at the internal borders of disciplinary societies.[39] Seeing such institutions as the key to the secrets of the West's power, nationalisms of the

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[36] Harootunian, "Some Thoughts on Comparability and the Space-Time Problem," *boundary 2* 32.1 (2005), 47.
[37] Harootunian, 46.
[38] Armand Mattelart, *Mapping World Communication: War Progress, Culture,* trans. Susan Emanuel and James A. Cohen (Minneapolis: University of Minnesota Press, 1994), 192.
[39] Foucault, *Discipline and Punish: The Birth of the Prison,* trans. Alan Sheridan (New York: Vintage, 1995).

colonial and semi-colonial world were quick to transplant them to their own lands. With the abolishment of imperial examinations in 1905, the Chinese state followed suit, instituting a system of modern schooling cribbed from various European and U.S. models. Facing the daunting statistic of eighty-percent adult illiteracy, however, formal schooling found its supplement in adult education programs, variously known as "commoner education" (*pingmin jiaoyu* 平民教育), "popular education" (*tongsu jiaoyu* 通俗教育), "social education" (*shehui jiaoyu* 社会教育), and "mass education" (*minzhong jiaoyu* 民众教育). In chapters 1 and 3, I show how cinema became integrated into programs of mass education, which opposed the spatiotemporal enclosure of the school (where students, or *xuesheng*, would dedicate their lives to learning) to the wide expanse of rural illiteracy calling for low-cost and fast-acting solutions. Mass education students were not *xuesheng* but "instructees" (*shoujiao zhe* 受教者), who went to mass education centers when time permitted (see Chapter 1). Cinema thus became a way of troubleshooting the spatiotemporal bases of illiteracy while simultaneously hooking the illiterate peasant up to a volatile global network of image circulation and infrastructure development.

While film and cultural historians have recently integrated the spatiotemporal matrix of uneven development into their work, this research has primarily been focused on the urban. In film historiography, Miriam Hansen's concept of "vernacular modernism" has offered an indispensable heuristic for thinking the multi-valence of Hollywood cinema as it circulated around the world.[40] Challenging the structuralist

[40] See Miriam Bratu Hansen, "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism," in *Reinventing Film Studies*, ed. Christine Gledhill and Linda Williams (New York: Bloomsbury, 2000), 332-350; Hansen, "Fallen Women, Rising Stars, New Horizons: Shanghai Silent Film As Vernacular Modernism," *Film Quarterly* 54.1 (2000), 10-22; and

critique that reduces narrative integration to the self-same ideological effect, Hansen shows that reception studies enables the historian to decenter spectatorship across spatiotemporal registers. The constitutive ambiguity of vernacular modernism as a term, combining low culture with high modernism, is generative insofar as it shows how seemingly ideological efforts to cope with modern disorientation also comprise local practices of thinking the effects of modernization on the sensorium. Here, the problem of ideology is not effaced, but resituated as a form of cognitive mapping, to recall Fredric Jameson's term, where the imaginary relation to real conditions ceases to anchor a subject but becomes a surface—or interface—for navigating the world system.[41]

Taken up in Zhang Zhen's pioneering study of early Shanghai film cultures, vernacular modernism has come to determine a compelling way of defining treaty-port culture as the intersection of multiple temporalities interfaced by commercial entertainment.[42] Similarly, in Andrew Jones's study of musical and cinematic culture in Shanghai, the semi-colonial treaty port becomes a contact zone where intellectuals and the public negotiate the discordant temporalities of colonial modernity by means of varying forms of cultural praxis.[43] At its limits, however, the urban focus of such studies risks generating a new form of autochthony, one that insists that the vernaculars that

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Hansen, "Vernacular Modernism: Tracking Cinema on a Global Scale," in *World Cinemas, Transnational Perspectives,* eds. Nataša Ďuricová and Kathleen Newman (New York: Routledge, 2010), 287-314.

[41] Jameson discusses cognitive mapping as a way of reading Althusser's concept ideology as navigational tactic rather than a process of static social reproduction. Fredric Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Durham: Duke University Press, 2003), 51.

[42] Zhang Zhen, *An Amorous History of The Silver Screen: Shanghai Cinema, 1896-1937* (Chicago: University of Chicago Press, 2005). Also see Leo Ou-Fan Lee, *Shanghai Modern : The Flowering of New Urban Culture in Shanghai*, *1930-45* (Cambridge MA: Harvard University Press, 1999).

[43] Andrew F. Jones, *Yellow Music: Media Culture and Colonial Modernity in the Chinese Jazz Age* (Durham: Duke University Press, 2001).

emerge from cosmopolitan contact zones are somehow more organic than the official vernaculars promoted by intellectuals and the state. Zhang Zhen's study, for example, argues that the Shanghai urban vernacular, which she describes as an intermedial idiom that included language, architecture, and cinema, comprised a "lively cultural form" opposed to the "strictly codified artificial language" of the May Fourth *baihua* (白话) vernacular movement.[44] As I argue in Chapter 3, such assessments, while worthwhile in their iconoclasm against Mainland Chinese scholarship's canonization of May Fourth *baihua,* nonetheless obscure what is essential in the question of linguistic vitalism, namely, the interface between language, cinema, and infrastructure. It is telling, in fact, that the State and its flat official discourse become the order of the day once one takes leave of treaty-ports defined by a peculiar density of international finance capital and enters the national hinterland. If Shanghai cinema effected a mass mediated public sphere in which urbanites could negotiate the sensorial upheavals of capitalist-industrial modernization, Chinese educational film practice represented no less complex efforts to institute and troubleshoot a form of developmental modernism, founded on the imaginaries of mass tutelage, military organization, reinvented Confucian precepts, and grand infrastructural projects.

Thus logistics and infrastructure become key heuristics for reading Chinese educational cinema under conditions of uneven development. "Reconstruction" (*jianshe* 建设), a key term in the Guomindang developmental vocabulary, was built on the faith that the application of international technological standards could remake China

[44] Zhang Zhen, 125.

physically and spiritually.[45] Here, Chinese educational film shares more in common with the colonial cinemas examined by Brian Larkin and Peter Bloom than they do with the culture of transnational urbanisms. Larkin, in his study of colonial Nigeria, describes cinema and radio as infrastructural technologies, which in turn mediate other infrastructures such as bridges, dams, and railway tracks functioning as part of a rhetorical machine he terms the "colonial sublime."[46] Bloom, on the other hand, argues that French colonial film exhibition and production comprised a site for problematizing and renewing the social contract by producing a picture of "natural man" in a Rousseauean mold.[47] Colonial film production and exhibition teams produced contrived encounters between modern media and colonial populations, which defined a new kind of common sense about naïve spectators and rural film exhibition. In these cases, filmmaking and exhibition is blended with logistics: the availability of electricity, the weight of generators, the length of paved roads, etc. In chapters 3 and 4, I approach cinema as a logistical medium, examining both the rhetoric and the practice of mobile film exhibition in the Chinese hinterlands. As I argue, when defined logistically, educational film becomes nearly inseparable from the visuality of military perception. I thus draw on Paul Virilio's work on speed, cinema, and war in order to theorize the degree to which cinema's shortcut through literacy education became coterminous with its war function. As Virilio argues, cinema and war are part of the same visual problem

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[45] William C. Kirby, "Engineering China: Birth of the Developmental State, 1928-1937," *Becoming Chinese: Passages to Modernity and Beyond* (Berkeley: Berkeley University Press, 2000), 141.
[46] Brian Larkin, *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria* (Durham and London: Duke University Press, 2008).
[47] Peter Bloom, *French Colonial Documentary: Mythologies of Humanitarianism* (Minneapolis: University of Minnesota Press, 2008).

because both prioritize the instantaneity of vision over the continuity of space and habitus.[48] In both, the speed of light—vision—becomes a logistical model by which one transforms geographical and lived space, either in re-arranging a mise-en-scène on a studio set or in the construction of railroads to facilitate troop movements. What Virilio terms "dromocratic progress" is a game of one-upping one's opponent in speed. It is, in other words, war.[49] Or as Tom Nairn puts it, "uneven development is an academically polite way of saying war."[50]

Virilio's thinking offers inroads for analyzing educational cinema as a spatial practice insofar as cinema's instantaneity authorized the enthusiasm of its practitioners, drawing their rhetoric into wider and wider metaphorical circuits. In chapter 3, which analyzes the term "electrified education," I call this "infrastructure as metaphor." However, *as* metaphor, there remains a gap between statement and the logistical system that authorizes it. In the Chinese case, the wide gap that separated the enthusiasm of practitioners and what they were able to accomplish mirrored the chasm between film, audience, and lecturer. In Chapter 4, I offer an account of these gaps by reading mobile film screening guides and diagrams as "landscapes" defined less by the certainty of Renaissance perspective as the ambivalence of a beholder who is not sure whether she fits in the picture. The logistics of perception is, here, beset by incongruity, heterogeneity, and friction.

Recent scholarship on screen practices has helped me work out the specific problems of exhibition practice. In the history of film studies, exhibition space research

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[48] Virilio, *War and Cinema: The Logistics of Perception,* trans. Patrick Camillier (London: Verso, 1989).
[49] Paul Virilio, *Speed and Politics,* trans. Marc Polizzotti (Los Angeles: Semiotext(e), 2006).
[50] Nairn, quoted in Smith, 101.

played a crucial part in challenging totalizing conceptions of the cinematic apparatus, enabling a shift from Jean-Louis Baudry's identification of the movie theater with metaphysics à la Plato's cave to specific investigations into how theater architectures and non-theatrical spaces offered discrete pathways for distraction, decentering, and ambulatory possibility.[51] By defining the immobilized spectator sitting in a dark room in front of a large screen as representative of the apparatus by which cinema produces ideological effects, Baudry's approach emblematizes the tendency in film studies of the 1970's and 1980's toward unqualified claims to medium ontology, conflating the dominant commercial screening arrangements from around 1920 to 1990 in the capitalist West with *essential* characteristics of the medium and the spectatorial experience. Drawing, in a large part, on Louis Althusser's definition of ideology as an imaginary relationship to real conditions, Baudry identifies "the cinematic apparatus" with ideological closure, precluding both possibilities of imaginary excess and the instabilities that beset exhibition contexts.[52] As movements toward a clear, if sometimes unstated,

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[51] Jean-Louis Baudry, "The Apparatus: Metapsychological Approaches to the Impression of Reality in Cinema," in *Narrative, Apparatus, Ideology,* ed. Philip Rosen (New York: Columbia University Press, 1986), 299-318. See, for example, Giuliana Bruno, *Atlas of Emotion: Journeys in Art, Architecture and Film* (New York: Verso, 2002), Ariel Rogers, *Cinematic Appeals: The Experience of New Movie Technologies* (New York: Columbia University Press, 2013), the essays in Janine Marchessault and Susan Lord (eds.), *Fluid Screens, Expanded Cinema* (Toronto: University of Toronto Press, 2007), Haidee Wasson, *Museum Movies: The Museum of Modern Art and the Birth of Art Cinema* (Berkeley: University of California Press, 2005), Paula Voci, *China on Video: Smaller Screen Realities* (New York: Columbia University Press, 2013), and Charles Acland, "Curtains, Carts, and the Mobile Screen," *Screen* 50.1 (2009), 148-166.

[52] Louis Althusser, "Ideology and Ideological State Apparatuses (Notes Toward an Investigation)," *Lenin and Philosophy and Other Essays,* trans. Ben Brewster (New York: Monthly Review Press, 2001), 85-126. An extensive discussion of the relationship between Althusser and Althusserian film theory will be outside of the scope of this paper. My view on this is similar to what Joan Copjec has argued in the case of Lacan and Lacanian film theory, namely, that film theorists have tended to sideline the instability and permeability of the screen in favor of an identification of screen as mirror rather than reckon with the more radical Lacanian claim that the mirror is a screen, which enables a relationship to difference rather than trapping one within

"spatial turn" in film studies, research into non-theatrical screening spaces such as the museum, the school, the factory, and the colony, has helped undo the geographical, historical, and technological presuppositions underwriting such conflations, presuppositions still operative in a discipline that remains centered on feature-length theatrical fiction.[53]

In short, at stake in the spatiotemporal disjunctures of uneven development is also the coherence of "cinema" as an apparatus (*dispositif*), its definition as a singular technology, aesthetic, institution, or experience. Here, I situate my work within ongoing genealogies of media forms and debates on intermediality. The genealogy of media, perhaps distinct from media archaeology, seeks less to define the parameters of a single medium, but to analyze what Tom Gunning calls "media braids."[54] Here, cinema must be understood as an "event" within a constellation of multiple media, such as theater, radio, magic lanterns, print advertising and literature. Cinema becomes intelligible on account of the media to which it is linked while redefining and displacing the contours of the latter.[55]

In this field, Weihong Bao has already authored a defining contribution, in the form of her monograph *Fiery Cinema: The Emergence of An Affective Medium in China,*

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the closure of centered subjectivity. See Joan Copjec, "The Orthopsychic Subject: Film Theory and the Reception of Lacan," *October* 49 (1989), 53-71.

[53] In addition to some of the texts cited in the preceding note, Haidee Wasson and Charles Acland's introduction to their edited volume *Useful Cinemas* (Durham: Duke University Press, 2011) makes this point succinctly, as does Haidee Wasson, "Electric Homes! Automatic Movies! Efficient Entertainment!: 16mm and Cinema's Domestication in the 1920s," *Cinema Journal* 48.4 (2009), 1-21.

[54] Tom Gunning, "Moving Away from the Index: Cinema and the Impression of Reality," in *The Film Theory Reader,* ed. Marc Furstenau (New York: Routledge, 2010), 255-269.

[55] André Gaudreault and Philippe Marion, "The Cinema as a Model for the Genealogy of Media," *Convergence* 8.4 (2002), 12-8; Thomas Elsaesser, "Early Film History and Multi-Media : An Archaeology of Possible Futures?," *New Media, Old Media: A History and Theory Reader,* eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), 13-26.

1915-1945.[56] In it, Bao argues that Republican Chinese film discourse was a testing ground for thinking cinema outside of its medium specificity and determining it as expansive intermedial *dispositif* that swept print media, architecture, theatre, broadcasting, as well as the spectator herself into its embrace. As Bao shows, Chinese interlocutors conceived the human bodies and environments within which media are situated to be continuations of the media link. She has thus developed a series of concepts based on the rich archive of Republican-era media discourse, including "sympathy," which I discuss in Chapter 1, "ether," discussed in Chapter 3, and "resonance," discussed in Chapter 4. Such terms gesture toward a definition of cinema as what Bao calls an "affective medium," that is, a medium that blurs the distinction between screen and spectator, sender and receiver, the human body and the communication link, if not media and mediation itself.

Bao's thinking on affective intermediality has been essential for my own approach to the braid between technical media, their environments, and their human interlocutors. However, I am less interested in exploring the expansive contours of cinema as an affective medium as I am in mapping "education" as one of its specific, if polyvalent, interfaces. As I argue, education defined specific if mobile thresholds that divided and connected media, environments, and people. The categories of affect theory are essential to my analyses, insofar as they authorize a reading of media discourse's emotive intensities (sympathy, resonance, vibration) as constitutive rather than belonging to pre-existing categories of media and subjectivity. However, following Eugenie Brinkema, I insist that affect, no matter how embodied and volatile, must be "read" by

[56] Weihong Bao, *Fiery Cinema: The Emergence of an Affective Medium in China, 1915-1945* (Minneapolis: University of Minnesota Press, 2015).

means of its *forms,* that is, the ways in which it is actualized in specific films, institutional routines, infrastructural configurations, and rhetorical figures.[57]

I am guided here by research in the non-theatrical field concerning what Haidee Wasson and Charles Acland's call "useful cinema," defined by "film's ability to transform unlikely spaces, convey ideas, convince individuals, and produce subjects in the service of public and private aims."[58] Use comprises an important heuristic, since it brackets the question of ontology—what cinema is—while highlighting the specificity of cinema as it is *actualized* to serve the "maintenance and longevity of institutions seemingly unrelated to cinema as it does with cinema per se."[59]

Projects on useful cinema often become institutional histories. To be effective histories, however, they must attend not only to the identity and development of the institution in question, but also to how the institution's norms and protocols enable it establish a relationship to its object, which is by definition "outside" of it. Cinema comprises one such link to the outside defined by its specific but variable characteristics as a screen technology. In her own research, Wasson has emphasized the importance *portability* and *flexibility* as protocols for screen technology as it leaves the commercial movie house and enters multi-use military, domestic, and educational spaces.[60] In her pioneering study *Museum Movies: The Museum of Modern Art and the Birth of Art Cinema,* for example, Wasson argues that the 16mm gauge, while a technical measure, "was more accurately an expansive network of ideas and practices, supported by an

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[57] Eugenie Brinkema, *The Forms of the Affects* (Durham: Duke University Press, 2012).
[58] Haidee Wasson and Charles Acland, "Introduction," in *Useful Cinema*, eds. Wasson and Acland (Durham: Duke University Press, 2011), 2.
[59] Wasson and Acland, 4.
[60] Wasson, *Museum Movies,* 46.

amalgam of cameras, projectors, and film stock."[61] As my expositions in chapters 3 and 4 will show, portability protocols acquire different meanings based on the institutions in which they are actualized, and indeed meanings that may exceed what the technology actually enables.

Similarly, to analyze filmic texts in their "use," one must read them not as enclosed works with "ideal" enunciative loci (as Christian Metz has argued must be done), but interfaces in a dispersed enunciative activity.[62] Vinzenz Hediger and Patrick Vonderau make a similar argument about industrial films, asserting that they comprise "traces of the forms of social and industrial organization which they once served, and, more often than not, their intelligibility depends on the degree to which a reconstruction of these frames of organization is possible."[63]

My methodological contribution to both these bodies of research pertains to what Foucault has defined as the principle of enunciative poverty. I am neither interested in the institutional history per se nor in a generalized theory of cinema, but rather in how developmental unevenness—in both senses of the word—conditions cinema's actualization *vis-à-vis* its multiple interfaces. I attend to moments when rhetoric overtakes practice and technologies fail to materialize the dreams they inspire. I make no *a priori* decisions as to whether a discourse is conceptual, metaphorical, or historical.

Metaphor and Allegory

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[62] Christian Metz, "Impersonal Enunciation, or the Site of Film (In the Margin of Recent Works on Enunciation in Cinema," trans. Béatrice Durand-Sendrail and Kristen Brookes, *New Literary History* 22.3 (1991), 747-772.
[63] Vinzenz Hediger and Patrick Vonderau, *Films that Work: Industrial Film and the Productivity of Media* (Amsterdam: Amsterdam University Press, 2009), 11.

In observing the principle of enunciative poverty, this dissertation is preoccupied with the vicissitudes of rhetoric. I will thus clarify some of the terms of the rhetorical analysis I use. My argument is that, on a rhetorical level, the discourse of educational cinema is metaphorical and allegorical. It is metaphorical insofar as it features slippages in meaning that transport one sense of a word to another: for example, as I raise in chapter 3, when the national pater Sun Yat-sen argues that China needs one million miles of highways in order to awake its people from "stagnation" such that they may "catch up with modern civilization."[64] What I term "infrastructure as metaphor" pertains precisely to these slippages and inflations, which at points also spiral into uncontrolled metonymy. On the other hand, allegorical uses of language have a more precise metonymical structure. Rather than one word transporting the reader elsewhere, allegories are sentences, if not paragraphs, that maintain their own consistency while allowing themselves to be read as substituting for something else. As Bruce Clarke, discussed in Chapter 3, argues, science proceeds by precise allegories, where the metaphorical slippages of a word are bracketed in order to render exact their meaning within a regulated metonymy.[65] Science takes hold of the real not by grabbing at it but by allegorizing it. There are, of course, allegories of a different and more ambiguous type, for example the national allegories that Jameson describes in "Third World Literature in the Era of Multinational Capitalism."[66] Here, it needs to be observed that allegory is something of a willful act, an act of allegoresis, where one chooses to read a narrative's

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[64] Sun Yat-sen, *The International Development of China* (New York: Putnam, 1922), 188.
[65] Bruce Clarke, *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics* (Ann Arbor: University of Michigan Press, 2001), 18.
[66] Fredric Jameson, "Third World Literature in the Age of Multinational Capitalism," *Social Text* 15 (1986), 65-88.

internal structure as homologous to the structure of something that is less representable. It is thus never sufficient to say whether something "is" or "is not" an allegory, since it is only through allegoresis—an act of faith—that allegories acquire their meaning and referent. The act of faith goes two ways. First it must say that X stands in for Y, for example, that this or that narrative about family crisis is really about the nation.[67] Second, it must have faith in the structural integrity of X (X=X), insofar as the narrative, or sentence, must have a grammar, rather than being a jumble of words. The same act of faith is, of course, necessary for reading an index or a film catalog in which the objects to which those catalogs refer are no longer extant, since one must trust that it has internal consistency and that it maps onto something non-discursive. Metaphors, however, are less organized. They are fueled by connotation and hence do not always take one where one wants to go. If one reads the word "electrical power" in the manual for a film projector in a metaphorical sense, for example, one may not end up making the machine work.

This unworkability is part of my object, since Chinese educational film practitioners put together interfaces that were full of glitches and sometimes did not even get off the ground. They made hyperbolic declarations with no follow through. They eulogized mundane technical tasks with the euphoria of lyric. The key is to being able to read such episodes as more than the comical allegories of a failed state or the seeds of a

[67] What I call an act of faith can equally be the melancholia of a fallen world. Walter Benjamin, for example, links allegory to the restorative impulse of one confronted with the world in ruins where "Any person, any object, any relationship could mean absolutely anything else …but…all the things that are used to signify derive, from the very fact of their pointing to something else, a power which makes them appear no longer commensurable with profane things, which raises them to a higher plane, and which can, indeed, sanctify them." Walter Benjamin, *The Origin of German Tragic Drama,* trans. George Steiner (London and New York: Verso, 2003), 175.

potential media theory, but as a pattern of dispersed enunciation. Allegories are precise while metaphors are sloppy, and Chinese educators made use of both. By moving between metaphor and allegory, my methodological choice is to not decide between the sloppy and the precise, that is, not assuming *a priori* that a statement makes sense. As I show in the body of dissertation, this unworkability of language is both a function of film as a specific case of technical media and of uneven development as a broader problem.

The Linear Narrative

My periodization, which follows the longevity of a set of institutions that comprise the Chinese educational film movement from their founding to their dis-corporation, is meant to bracket a story that ultimately does not unfold in a linear fashion. The story could be told linearly, as Peng Jiaoxue does in his well-researched *A Short History of the Development of Educational Cinema in the Republican Era.*[68] There, he segments the life of the Chinese educational film movement into (1) a period of early development, (2) a period of relative flourishing, and (3) a period of decline. The lives of institutions, when narrated in a linear way, seem to always yield the same antiseptic segmentations. But what is interesting about the lives of institutions are their networks—their horizontal affiliations—not their movement through homogenous time. However, insofar as this dissertation is the first monograph to address the Chinese educational film movement in English, I will take the time here to offer a linear description of this "life," which can function, perhaps, as reference material for what comes later.

[68] Peng Jiaoxue, *Minguo shiqi jiaoyu dianying fazhan jianshi* (Beijing: Zhongguo chuanmei daxue chuban she, 2008).

Exploratory Period (1932-1935): Between the years 1932 and 1934, NECS directed most of its efforts to supporting the domestic film industry in Shanghai, at the time the only concentrated repository of filmmaking facilities and expertise.[69] Working closely with the Ministry of Education-Ministry of Interior Censorship Board, the NECS authored guidelines, held meetings, published research, reviewed scripts, and held an annual film contest for commercial films with strong educational significance. The Shanghai film industry, for its part, enthusiastically embraced the educational label, producing from 1933 to 1935 many films that it marketed as "educational films" including *Spring Silkworms* (*Chun can* 春蚕 Dir. Cheng Bugao, 1933), *Playthings* (*Xiao wanyi* 小玩意, Dir. Sun Yu, 1933), *Golden Years* (*Huangjin shidai* 黄金时代 Dir. Bu Wancang, 1934), and *The Confused Lamb* (*Mitu de gaoyang* 迷途的羔羊, Dir, Cai Chusheng, 1936). Sufficing under what was termed the "broad meaning" of educational cinematography, such films comprised generic mixtures of melodramatic narrative, pedagogical themes, and tropes taken from more explicitly educational material, for example the use of statistical charts, classroom scenes, and close attention to industrial processes (chapters 1 and 2).

Meanwhile, the National Educational Film Distribution Office, founded in 1933, established a collection of projectors and 16mm instructional films purchased from Eastman Kodak Shanghai and the League of Nations, which it lent out to any educational body for free, provided that the latter paid shipping costs and did not charge more than ten cooper coins for admission (chapter 1). This created the framework under which local

[69] I will not be footnoting individual points in this story, which are discussed in the course of the chapters.

educational institutions, specifically provincial mass education centers, pioneered mobile and fixed screening networks, at first making use of Eastman and League films and later including Chinese productions. The Jiangsu Provincial Mass Education Center in Zhenjiang, which began its screening activities in January 1934, quickly became a national flagship in this area, publishing manuals and teaching scripts based on its experience for others to follow (chapters 1 and 4).

(2) Golden Age (1936-7): In 1936, the Ministry of Education took up the task of what was coming to be known as "electrified education" by forming committees on film and radio, which in turn passed mandates for a national projection network run by local educational institutions (chapter 3). By 1936, mass education centers in Fujian, Shandong, Henan, and Zhejiang provinces all had running screening networks, built on the Jiangsu model. Such developments, however, were cut short by the outbreak of the Sino-Japanese war in July of 1937, although the lessons of mobile screening would be applied in Guomindang controlled areas in Western China.

On the filmmaking side, the first Chinese educational films of the stricter "narrow meaning" were produced in commissioning arrangements between state organs and the Shanghai film industry. The Jiangsu Bureau of Education, which convened its film committee in 1934, issued a call for scripts, which was answered by the Jiangsu governor himself, Chen Guofu. Chen's film *Water Hygiene* (*Yinshui weisheng* 饮水卫生, 1935) was produced by the Star Motion Picture Company (Mingxing 明星), and comprised, like the Shanghai productions discussed earlier, a hybrid of narrative and didactic techniques (Chapter 1). After having succeeded in securing a funding stream by collecting an educational film tax from theaters in Nanjing, the NECS began its long relationship with

the missionary-founded Jinling University (The University of Nanking), commissioning several dozen educational shorts on topics including industry, geography, civics, natural sciences, national defense, and the arts. Over the course of the next decade, Jinling University's Department of Educational Cinematography (later renamed the Audiovisual Department), at first founded by physics and chemistry professors Wei Xueren and Pan Denghou in the College of Sciences, would become the centerpiece of Chinese "electrified education" production, technology development, and research. Sun Mingjing, a 1934 Jinling graduate with training in physics, engineering and the arts, took over directorship of the department in 1936, when Pan was drafted to run the electrified education committee at the Ministry of Education. Primarily a cinematographer, however, he also filmed and edited nearly one hundred films between 1935 and 1948.

(3) Expansion and Shortage (1937-1945) With the outbreak of all-out war, many of the government, film industry and educational players in this story fled west in a mass migration that encompassed an estimated ten million people. The NECS set up shop in the Western capital of Chongqing, Sichuan province, while Jinling University moved in with the seven other Protestant universities on the campus of West China Union University in Chengdu. Meanwhile, the Ministry of Education, now under the authority of NECS-founder Chen Lifu, absorbed the provincial mobile projection teams under its umbrella, sending them out on tours of the unoccupied provinces. Production activities continued until the celluloid ran out, exacerbated by the Pacific War, which by 1942 cut off all land routes in and out of so-called "Free China." As feature films, which consumed much celluloid, were rendered too expensive to make, filmmakers from the military and state studios in Chongqing gravitated to educational production. The China

Educational Film Production Studio and the Agricultural Film Studio were thus convened in 1942. Over the course of this period, educational film activities in Chongqing took place in tandem with international propaganda agencies such as the U.S. Office of War Information, the British Ministry of Information, and the State Department's Cultural Relations program. With Chinese productions becoming scarce, OWI and State (collectively known as the United States Information Service) became the main supplier of films for Chinese exhibitors, a pattern that would continue into the postwar period.

(4) Optimism and Dispersal (1945-1952): Between 1945 and 1949, Jinling University's Audiovisual Department resettled in Nanjing, where it took a lead role in defining the debate. Although a number of films were produced in this period, civil war and unstable finances made the numbers pale in comparison to the 1936-1937 "golden age" of educational production.[70] Nonetheless, research and theoretical debate about audiovisual instruction reached a crescendo buttressed by the Jinling University periodical *Film and Radio,* as well as active support of USIS and the Rockefeller Foundation. As the civil war drew to an end and the Communists emerged victorious, the educational film players dispersed. Guomindang affiliates such as Chen Lifu and Chen Guofu fled to Taiwan, while others such as Liu Zhichang and Sun Mingjing stayed on the mainland. It was not until 1952, when the CCP reorganized the education system, that Jinling's audiovisual department official shut down, and Sun Mingjing was transferred to teach cinematography at the Central Film Academy, later to become the Beijing Film Academy.

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[70] Sun Mingjing uses this term to describe 1936-1937. Swen Ming-ching, "The Fifth Start," *Educational Screen* (October 1947), 431.

Chapter Breakdown

Chapter 1, "Replacing the Chalkboard with the Silver Screen" introduces the historical datum by situating the birth of the educational film movement at the intersection of the flourishing Shanghai film industry and the sphere of mass education. In it, I address what were known as the "broad" and "narrow" definitions of educational cinema. Exploring these two definitions, I explore why educators found it incumbent to develop a parallel industry distinct from Shanghai entertainment culture. In turn, I examine how the "educational cinema" concept became significant for debates within the Shanghai film world. In the second part of the chapter, I close-read the teaching guides used to adapt Eastman Classroom films to the Chinese mass education context. As I argue, such texts reveal the instabilities of the lecturer's discursive authority *vis-à-vis* cinema, an instability that also manifests itself in Chinese educational films such as *Water Hygiene* (Chen Guofu, 1934).

Chapter 2, "Sericulture Volatility" focuses on a specific genre of Chinese-produced educational film, the "industrial education film." I contextualize industrial education within globally circulated practices of industrial exposition. Adapted in China to buttress what scholar Karl Gerth calls the "nationalist commodity spectacle," such practices hinged on the transformation of commodities into signifiers of nation, usually guided by verbal labels of problematic veracity. Close readings of two silent films addressing China's endangered silk industry reveal similar uncertainties of signification. The 1933 commercial feature *Spring Silkworms*, based on a novella by the respected writer Mao Dun, was criticized for its failure to reproduce the latter's indictment of imperialism due to excessive focus on sericulture rhythms over the pathos of

melodramatic development. The 1935 Jinling University instructional short *Silk* (*Can si* 蚕丝), depicting a modernized sericulture process, undermined its pretensions to scientific vision with an indulgent emphasis disorienting camera pans that draw on a mixed visual archive informed by romantic poetry and scroll painting. Both films, I argue, register the asymmetries of the world market in their very texture.

Chapter 3, "Infrastructure as Metaphor" shifts attention to rhetoric, examining how hyperbolic language concerning educational cinema's promises interfaced with technoscientism, infrastructural imaginaries, and literacy education. I focus on the popular term "electrified education" (*dianhua jiaoyu*), which beginning in 1936 came to describe Chinese practices of educational technology. Reading "electrified education" alongside the Late-Qing philosopher Tan Sitong's discussion of electricity and ether as ethical categories, I argue that educational technologies participated in a technoscientistic imaginary that challenged the borders of self and other, the organism and its environment. Elaborating Tan's thinking in the context of the Ministry of Education's national projection network, I argue that the network comprised both a metaphorical and logistical practice. Educational film practitioners drew on cinema's logistical qualities as a way of circumventing the messy problems of vernacular literacy, which, as I show, reframed debates over the adequacy of sinographic writing as matters of speed, or what Virilio calls "dromocratic progress."

Chapter 4, "Landscape Work" complicates Virilio's claims on the relationship between war, cinema, and logistics with close readings of educational film "landscapes." Drawing on the methods laid out by W.J.T. Mitchell and Henri Lefebvre, I analyze the "geographic scenery film," a prolific educational genre that, extending the imperialist

tradition of travel cinema, comprised a particularly vexed medium for negotiating the relationship between geographic unevenness and vision. Chinese-produced scenery films were envisioned as explicit counterpoints to the foreign landscapes then prolific in teaching material and popular iconography. While the transformation of Chinese tourist destinations into filmic images sought to inculcate a sense of shared national space, the films' visual rhetoric demonstrated the volatility of their perspective. This volatility was furthered in practices of film distribution and exhibition, which highlighted how such space was fraught with asymmetries and frictions. Turning to the Zhenjiang Provincial Mass Education Center's pioneering mobile screening program, I show how cinema compensated for gaps in transport infrastructure, in particular, the difference between the province's recently built highway network and the canals and narrow alleys that continued to define mobility for the majority of its residents. I then turn to a discussion of "landscape" in scenery, industrial, national defense, and ethnographic titles produced leading up to and during the war. I argue that at their limits, the industrial and scenery films were war films, insofar as they addressed at bottom the poverty of vision *vis-à-vis* modern modes of technical organization and speed. Read in light of their multiple reception contexts, the films, I argue, instantiate the dispersive tendencies already present in landscape under conditions of uneven development.

In the Coda, I trace the fate of Chinese educational film from the war to the postwar era. In particular, I sketch how the logistical and rhetorical instabilities of Chinese educational cinema interfaced with international practices of communication governance as they were articulated via U.S. propaganda and cultural diplomacy organs stationed in Chongqing. I conclude by considering what my discussion of Chinese

educational film has to offer for the global history of media, war, and governmentality from the cold war to the present.

Chapter 1 "Replacing the Chalkboard with the Silver Screen": Words, Images, and the Vicissitudes of "Educational Cinematography"

"Educational cinematography was absolutely unknown in China," exclaimed the Baron Alessandro von Sardi in *Cinema and China,* a report to the League of Nations International Educational Cinematographic Institute published in 1932.[1] Sardi had arrived in Shanghai in December of the previous year, attached as the IECI representative to the League's mission of educational experts, which had been invited at the behest of the national government in Nanjing. He had a considerable amount of luggage with him: a thousand bound copies of a pamphlet describing Italy's para-governmental L'Union Cinematografica Educativa (LUCE), of which he was president, thirty educational films, and numerous photographs of notable landscapes and artworks. Although his official assignment was to get in touch with the Chinese authorities on matters of educational cinematography, Sardi found the situation such that "in order to render my work really efficacious I could hardly be limited to 'getting in touch'."[2] The Baron thus took it upon himself to introduce educational cinema to China, traveling from Shanghai, to Nanjing, Tianjin, and Beiping (Beijing), where he screened films, lectured, and distributed LUCE pamphlets. According to one account in the Shanghai journal *Education Weekly*, Sardi introduced his screenings with a speech about the superiority of "direct" visual impressions to "indirect" auditory learning; he then screened films on the architecture of Italian cities, the production of salt, the laying and incubation of chicken eggs, and the

[1] Alessandro Sardi, *Cinema and China* (Rome: International Educational Cinematographic Institute, 1932), 1.
[2] Sardi, 1.

war making capacities of the Italian military.[3] Wang Yudeng, who covered the Shanghai lecture for the *Weekly*, gave voice to the mixture of allure and dread inspired by the demonstration of educational technology. He concluded that the screening proved first, that China lagged behind the rest of the world in educational cinema and cinema in general; second, that other nations were better at preserving ancient ruins; and third, that others outpaced China in scientific research and effort. The screening thus showed the audience "the low level at which our country exists," a situation that, at the root, was because "education has yet to be popularized [*puji* 普及]."[4]

The League mission authored its report in 1932, which but confirmed Wang's observations, as well as those Chinese educators had made since the 1920s: namely, that the public education system lacked coordination, being subject primarily to short-lived private initiatives; that the educational models promoted by reformers who had studied overseas were wont to mechanically imitate their foreign inspirations; and finally, that the well maintained modern schools that did exist were, in turn, fundamentally divorced from the nation's broader social conditions, resulting in an "enormous abyss between the masses of the Chinese people, plunged in illiteracy, and not understanding the needs of their country, and the intelligentsia educated in luxurious schools and indifferent to the wants of the masses."[5] In his separately authored report, Sardi offered an implicit response to the League's diagnosis, observing that educational film, defined as "any film

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[3] Wang Yudeng, "Canguan Sa'di nanjue de jiaoyu dianying biaoyan," *Jiaoyu zhoubao* 139 (1932), 1-2.
[4] Wang Yuedeng, 2.
[5] League of Nations' Mission of Educational Experts, *The Reorganization of Education in China* (Paris: League of Nations' Institute of Intellectual Co-operation, 1932), 21. Also see Suzanne Pepper, *Radicalism and Education Reform in 20th Century China* (Cambridge and New York: Cambridge University Press, 1991), 37-9.

that can increase the people's knowledge of political, social, artistic, industrial and technical matters," could pick up the slack.[6] "Educational cinematography will be able to render immense service in China, particularly in view of the cultural level of the population," writes Sardi, adding that, given the "small proportion of the population that could read and write," cinematography "would be especially useful in teaching the ideographic writing."[7] Beyond literacy education as such, Sardi prescribed the use of educational films for a variety of purposes, including publicizing national events and political directives, popularizing geography and customs, capturing natural scenery, and disseminating hygienic knowledge.[8] The basis for such suggestions was, of course, Italy's LUCE, which since 1924 had successfully developed an extensive network of ambulatory motor cinemas as well screened educational films in schools and commercial theatres.[9] Nonetheless, the Baron observed that given the differences "both social and intellectual" that existed "between the inhabitants of the big towns who are in touch with the western world, and the rest of the immense population," it was "impossible to think of transplanting in China an organization similar to those which have been instituted in other countries."[10]

As he traveled, Sardi collected the names and addresses of interested parties, which he handed to fellow Italian Carlo Bos, supervisor of maritime customs for the International Settlement, whom he appointed honorary delegate to the IECI. Bos went

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[6] Sardi, 8.
[7] Sardi, *Cinema and China,* 14. For the Chinese translation, see Sa'er di, *Dianying yu zhongguo*, trans. Peng Baichuan and Zhang Peiying, *Minzhong jiaoyu tongxun* 3 (1933): 41.; Also see "China and the I.I.E.C.," *International Review of Educational Cinematography* 4.1 (1932), 49-51.
[8] Sardi, 15.
[9] Christel Taillibert, "Le cinéma, instrument de politique extérieure du fascisme italien," *Mélanges de L'Ecole française de Rome. Italie et Méditerrané* 110. 2 (1998), 943-962.
[10] Sardi, 12.

forward with Sardi's plans to establish an organization based in the Shanghai international settlement, which would "assist the Government, social institutions, schools, chambers of commerce, etc. in the sale and exchange of films produced by the Chinese Cinema industry, showing national aspirations and life of the people, their many old and new customs, China's cities and ports, the products of her soil, her commercial industries and scientific developments, etc.."[11] Despite Bos' intention to cooperate with the Chinese government, Nanjing authorities were piqued that foreigners had established a branch of IECI in China without consulting its government. Ignoring Bos' missives asking for government funding, the Nationalist Party (Guomindang or GMD) politician Chen Lifu gained authorization to found the National Educational Cinematographic Society of China (NECS), an assembly consisting of politicians, educators, and filmmakers in August of 1932.[12] Chen Lifu, the younger half of the so-called "CC Clique," otherwise known as the "Organizational Faction" in the GMD, was perhaps the most influential personage in the Nanjing state's civilian bureaucracy.[13] No doubt the founding of NECS was a move to consolidate the clique's already considerable reach, in competition with rival Song Ziwen (T.V. Soong) of the Party's "financial faction," who had welcomed Sardi in his China visit.[14] On the international level, however, the move was grounded in a firm rhetoric national unity, evident when the organization petitioned for and won

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[11] "League of Nations, International Educational Cinematographic Institute," Shanghai Municipal Archive U1-3-4223.
[12] Guo Youshou, "Zhongguo jiaoyu dianying xiehui chengli shi" (1934), in *Zhongguo dianying ni bu zhi dao de na xie shi'er,* ed. Sun Jiansan (Beijing: Shijie tushu chuban gongsi, 2010), 246-7.
[13] See Lloyd Eastman, *The Abortive Revolution: China Under Nationalist Rule* (Cambridge: Harvard University Press, 1974).
[14] Sardi, 6.

recognition as representative to IECI in 1933.[15] The Chinese state's view was articulated in no unclear terms in the national censorship board's weekly bulletin: "The issue of educational cinematography [in this country] should be taken care of by the Chinese themselves, and a national organization of this type should be situated in Nanjing."[16]

Thus the Chinese Educational Film Movement was born, at least according to the official historians. The term, used as early as 1934 by the Jiangsu Provincial Mass Education Center employee Zong Bingxin, was canonized in 1935 when Guo Youshou (Kuo Yu-shou), deputy director of higher education at the Ministry and member of the censorship board, published *Our Country's Educational Film Movement.*[17] The latter text situated educational cinema within a long history that began with the Chinese invention of movable type, passing through the invention of cinema in the West, then returning to Chinese efforts to regulate and censor Western productions (including a reference to the famous incident involving degrading representations of Chinese in Harold Lloyd's *Welcome Danger*).[18] In recent times, Guo's history concluded, Chinese cinema had witnessed two recent movements, on the one hand the movement for a national cinema, emblematized by the industrial strategy of the United Photoplay Service (Lianhua 联华), and on the other, the educational film movement, which sought to introduce cinema to

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[15] Guo Youshou, "Zhongguo jiaoyu dianying xiehui gaikuang," *Dianying yu boyin* 3.1 (1944), 1-2.

[16] The statement was issued by the Education Ministry/Ministry of Interior Joint Censorship commission, quoted in Peng Jiaoxue, *Minguo shiqi jiaoyu dianying fazhan jianshi* (Beijing: Zhongguo chuanmei daxue chuban she, 2008), kindle electronic text.

[17] Zong Bingxin, *Jiaoyu dianying yanjiu ji* (Zhenjiang: Jiangsu Zhejiang shengli minzhong jiaoyu guan, 1934); Guo Youshou, *Woguo zhi jiaoyu dianying yundong* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935).

[18] Guo Youshou, "Woguo zhi jiaoyu dianying yundong" (1935), *Zhongguo dianying ni bu zhidao de na xie shi'er,* ed. Sun Jiansan 407-12.

educational institutions.[19] Comprising of a patchwork of governmental and private initiatives to produce and screen educational titles in Chinese schools and mass educational contexts, the Chinese educational film movement snowballed into a widespread institutional efforts to train technical talent, adjust teaching, and develop the industries necessary for the self-sufficient use of cinema and radio. The journalist Wang Yudeng's comments in response to Sardi's lecture describes the anxieties operative throughout this history, limning the degree to which educational cinematography (*jiaoyu dianying* 教育电影) and cinematographic education (*dianying jiaoyu* 电影教育) crystallized the affective, technological, and institutional problematics at stake in the semi-colonial state's developmental dilemmas. Screened by foreign powers, educational cinema held a mirror to China's underdevelopment while glowing with the equivocal allure of international state-building models. As a tool in Chinese hands, it the offered technological corrective to the seemingly insurmountable obstacles to the mass enlightenment believed to be essential to national survival. As a technical and logistical reality that required finances, infrastructure, parts, coordination, a supply of films, and able users, however, it comprised a volatile network in which the unevenness of global industrial and technological capacity are made palpable at the institutional and affective level.

Over the course of the 1930s, the NECS would become a platform for both the educational film movement and the national cinema movement, coordinating and funding film activities undertaken by the Chinese government and educational institutions while

[19] Guo Youshou, "Woguo zhi jiaoyu dianying yundong" (1935), 413-4. Guo Youshou, "Woguo dianying jiaoyu yundong de niaokan," *Jiao yu xue* 1.8 (1936), 82－92.

seeking to lend support to the commercial industry. As an open "society organization" with a membership that mushroomed to over nine hundred by 1937, the NECS provided a framework for educators, politicians, and filmmakers to hash out the complicated relationship between the film industry, the party, and the civil service apparatus in which educators were a part.[20] Owing to lack of funds, the organization's early work focused on research and publicity, although production and the creation of new institutions were on the agenda. To this end, one of the NECS' first acts was to commission translations of the LUCE pamphlet and Sardi's report to the IECI, which was accomplished by Peng Baichuan and Zhang Peiying, two of the Baron's interpreters on site.[21] In turn, new research on foreign educational film programs (particularly Italian and Soviet), domestic priorities, and the Chinese film industry were to be compiled and published in a volume of the *China Film Yearbook,* which saw print in 1934.[22] It was from this early flurry of work that the terms *jiaoyu dianying* (educational cinema) and *dianying jiaoyu* (cinematographic education) were put into common circulation. Whereas references to the relationship between "education" and "cinema" were abound in the literature since around 1912, the two words had yet to be joined together. Authorized by the foreign model, the portmanteaus *jiaoyu dianying* and *dianying jiaoyu* became attractive imaginative structures for those hoping to integrate motion pictures into the Nanjing state's pedagogical project.

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[20] NECS, *Zhongguo jiaoyu dianying xiehui huiyuan mingdan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1937).
[21] Published as a standalone pamphlet but also as Sa'er di, "Dianying yu zhongguo," trans. Peng Baichuan and Zhang Peiying, *Minzhong jiaoyu tongxun* 3 (1933), 14-54; Sa'er di, "Yi da li guoli jiaoyu dianying guan gai kuang (The National Luce Institute)," trans. Peng Baichuan and Zhang Peiying, *Dianying jiancha weiyuanhui gongbao* 1.7 (1932), 20-9.
[22] Zhongguo jiaoyu dianying xiehui, *Zhongguo dianying nianjian 1934* (Beijing: Guangbo dianshi chubanshe, 2008).

This chapter introduces the concepts and practices that conditioned cinema's emergence within Chinese educational practices during the 1930s, focusing on the period before the outbreak of war in 1937, when the educational film's institutional, terminological, and aesthetic contours remained to be worked out. I approach the educational film not as a genre whose boundaries and functions can be assumed in advance, but a discursive ensemble that must be mapped across dispersed networks of institutional power, practice, language, and desire. Like cinema itself, the partnership between motion picture technologies and educational institutions did not emerge full-fledged, but evolved out of a complex practice of fabrication that involved shifting definitions of both cinema and education.[23]

In what follows, I follow the dispersive vicissitudes of the terms *dianying jiaoyu* and *jiaoyu dianying* in order to explore the historical, conceptual, and practical problems confronted by the educational film movement in the years before the war (1932-1937). As I show, cinematographic education (*dianying jiaoyu*) and educational cinema (*jiaoyu dianying*) took on wide range of meanings and referents based on their contexts of enunciation. On the one hand, the neologisms claimed to denote something entirely novel, which before Sardi was "absolutely unknown in China," and hence occasioned the invention of new institutions of production, distribution, and exhibition. On the other, they were legible to Chinese politicians, educators and filmmakers precisely because they fit into longstanding conceptions of cinema's social functions, and, in turn, the educator's role *vis-à-vis* modes of popular entertainment and art. Without delving, however, into the

[23] Very much like cinema and film regulation itself between 1895 and 1920 in the West. See Lee Grieveson, *Policing Cinema: Movies and Censorship in Early-Twentieth Century America* (Berkely and Los Angeles: University of California Press, 2004).

"prehistory" of educational cinema in China—a topic that will require its own treatment—in what follows I focus on the 1932-1937 context, showing the degree to which the inertia of previous arrangements continued to weigh on concepts and practices of cinematic instruction. As I elaborate in the next section, what Sardi had called "educational cinematography" broke down into "broad" and "narrow" meanings, which in turn mapped onto the slight semantic differences between *dianying jiaoyu* and *jiaoyu dianying*. Far from being matters of mere semantics, however, the broad and narrow definitions implicated the very coherence of educational cinema as industry and praxis. Circulating within the Shanghai print public sphere, the concept of cinematographic education produced filmic material marked by heterogeneous modes of address and narrative disjuncture, an issue that became a concern for many critics. For educators facing the institutional inertia of the commercial model and the imposing necessity of using foreign educational films, the "narrow definition" posed its own challenges. Based on a close reading of teaching guides published by the Jiangsu Mass Education Center in Zhenjiang, I show how motion pictures became equivocal props for the instructor's discursive authority, functioning as relays or interfaces between his audience and his field of reference. The generalized crisis of reference, authority, and presence that marked the activity of teaching in the Republican era—by all means a transitional period in which the relationship between words and things was all but clear—will undergird my analyses, which proceed by scanning the surface of films and their ancillary discourses for tension lines and knots.

Broad and Narrow Meaning

The "broad meaning," according to Liu Zhichang, head of the film committee at the Jiangsu Provincial Mass Education Center in Zhenjiang, augured that "any film screened publicly (including those screened for profit and otherwise) falls within the scope of cinematographic education, regardless of whether it is an entertainment film, propaganda film, religious film, advertisement, newsreel, or educational film."[24] "The educational film," on the other hand, implied a stricter meaning, namely "films with a pedagogical purpose," produced for the purpose of classroom use.[25] The distinction had its origins in the international sphere, where jostling between Italy and France over the wording of a tariff treaty eliminating duties on educational films produced two wordings, "educational film" strictly speaking and "films of an international educational character."[26] France, whose prominence in hosting film policy discussions in Paris under the auspices of the Institute for Intellectual Cooperation had been challenged by the advent of the Rome-based IECI, feared that the broader definition could be used to designate commercial narrative films and hence force the latter on its tariff-protected domestic market. This was the case especially given that Italy and Germany sponsored borderline productions of the *Kultur* film sort.[27] French representatives thus promoted a narrow definition, which pertained only to *cinéma de ensiegnement,* or classroom films, as opposed to the broader *cinéma d'éducation,* which touched upon more holistic notions of moral and civic habituation.[28] Sardi's definition in *Cinema and China,* predictably,

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[24] Liu Zhichang, "Jiaoyu dianying de chubu shishi fa," *Minzhong jiaoyu tongxun* 3: 10 (1934), 20
[25] Liu Zhichang, 20.
[26] Kenneth Garner, "Seeing is Knowing: The Educational Cinema Movement in France, 1910-1945" (Doctoral Dissertation, University of Michigan, 2012), 186.
[27] Garner, 188.
[28] Garner, 190.

went the other way, noting educational films to be "any film that can increase the people's knowledge of law, society, art, and technology."[29]

In the Chinese context, however, the tension between the two definitions took on an entirely different character, touching upon the balance between entertainment and education, and particularly, the role that was to be played by Shanghai's commercial film studios in the educational film movement. *Dianying jiaoyu* (cinematographic education) naturally appealed to studio executives such as Luo Mingyou and Jing Qingyu of Lianhua, and Zhang Shichuan and Zheng Zhengqiu of the Star Motion Picture Company (Mingxing 明星), who saw in it possibilities for government commissions and a hinterland market.[30] However, it was Shanghai newspaper mogul and GMD insider Pan Gongzhan who made the strongest case for the broad definition. In an essay published in the NECS-sponsored *1934 China Film Yearbook,* Pan complained of the dryness of the purely instructional format, which was useless for audiences "who have no basis for seriousness."[31] Observing that "it is easier to give people candy than medicine," Pan argued for the superiority of a cinema that could "imperceptibly influence" (*qian yi mo hua* 潜移默化) its audiences rather than merely impart knowledge (*guanru* 灌入), concluding that "if it is proclaimed that this is 'education,' and people are mandated to

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[29] Sardi, 53.
[30] See, for example, Jin Qingyu, "Xiaoxing dianying yu yidong fangying dui" [Small Scale Cinema and Mobile Projection Teams], *Zhongguo jiaoyu dianying xiehui tekan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935), 60.
[31] Pan Gongzhan, "Shishi dianying jiaoyu de tujing," *Zhongguo dianying nianjian 1934* (Beijing: Guangbo dianshi chubanshe, 2008), 104. Keyed into the Shanghai publishing world, Pan was an indispensable affiliate of the CC Clique (headed up by the brothers Chen Guofu and Chen Lifu), in 1932 launching the *Shanghai Morning Post* (Chenbao), a CC Clique mouthpiece that, unexpectedly, also became one of the main platforms for left-wing film criticism. See Huang Xuelei, *Shanghai Filmmaking: Crossing Borders, Connecting the Globe: 1922-1938* (Boston: Brill, 2014).

receive it, then [the films] can only be used to supplement school education, but certainly not for social education."[32] Pan, who sat on the Mingxing Studio board of directors while also serving as head of the Shanghai Bureau of Education, augured his support for "cinematographic education," which he characterized as the view that all films had educational effects, the question being whether those effects were good or not. He thus placed the onus of cinema's educational efficacy on the filmmaking end, and particularly on screenwriters. Pan prescribed the use of "specially hired screenwriting experts who will write scripts of an educational character that yet remain interesting," supervised by the government.[33] Governmental supervision aside, Pan's opinion was shared by the heads of Shanghai's "progressive" film studios, namely Lianhua and Mingxing, who, spurred on by film critics, had recently begun hiring figures from left-wing drama (many of whom were underground Communist Party members) to fill out its ranks of screenwriters.[34] As film historians have showed, such collaborations led, in the 1930s, to a marked shift from anarchic experimentations with low genres (such as the "martial arts and magic spirit" films) to a politicized script-centered cinema based on higher literary canons. In Zhang Zhen's words, such films were "elaborately written using the idioms of critical realism, which May Fourth writers applied in their anti-feudal and anti-imperialist literary enterprises."[35]

Whereas Pan's approach offered a recognizable version of cinematographic

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[32] Pan, 104.
[33] Pan, 105.
[34] Zhang Zhen, *An Amorous History of the Silver Screen: Shanghai Cinema 1896-1937* (Chicago and London: University of Chicago Press, 2005), 248. Also see Huang Xuelei (2014) for a study of the Mingxing case.
[35] Zhang Zhen, 249.

education that drew on existing precedents from the Shanghai film world, educators on the ground parsed the space between "broad" and "narrow" definitions differently. While few came out squarely in favor of the "narrow definition," knowledge of the foreign visual instruction literature and experience with screening films in pedagogical contexts had made them careful about commercial modes of narration, production, and reception. University of Nanking (Jinling University) cinematographer Sun Mingjing surmised this view in a 1937 radio lecture, where he argued that educational film production should not be handed over to commercial studios.[36] Defining cinematographic education as "the use of film to carry out education" and educational films as "films with an educational purpose," Sun argued that the best films for carrying out education were in fact educational films. Acknowledging, however, that films "unable to make full use of the power of cinema" could not achieve the goals of motion picture education, he suggested the creation of production units based in universities who were technically trained yet in close conversation with governmental agencies and expert institutions.[37] Zong Liangdong, a professor in the department of educational research at government-run National Central University, echoed this point in his 1936 monograph *Introduction to Educational Cinema.*[38] Although the broad and narrow definitions were not in theory opposed, Zong observed, in practice the commercial film industry was tethered to the theatrical box office, and hence "could not but yield to the audience's interest in entertainment," in particular its desire for "low amusements" (*diji quwei* 低级

[36] Sun Mingjing, "Jiaoyu dianying zhi shezhi," *Kexue jiaoyu* 2.4 (1937), 17.
[37] Sun, 17 and 20.
[38] Zong Liangdong, *Jiaoyu dianying gailun* (Shanghai: Shangwu yinshu guan, 1936).

趣味) and films that "entice lechery and banditry" (*huiyin huidao* 诲淫诲盗).[39] Driven by the profit-motive, commercial movie theaters were hardly educational spaces, designed often without proper codes of hygiene (*weisheng* 卫生) in place, and willing to admit men, women, the old, the young, illiterates, and intellectuals without qualification.[40] Although such issues called for their own types of reform, Zong found it more realistic to focus on the development of a parallel non-theatrical industry, which would cultivate crossovers between pedagogy, science, and the arts. It was ideal, at all levels of the industry, for personnel to be familiar with the entire structure: technicians should realize the social significance of their work, theater management should know hygiene, and lecturers should be familiar with "the rhythm of educational films."[41] Such conceptions were resonant with what had been advanced in the latest U.S. visual education research, in particular the Electric Research Products Incorporated consultant Frederick Devereux's *The Educational Talking Picture* (1933), with which both Zong and Sun were familiar.[42] Devereux's book would soon be introduced in China in the form of *Yousheng jiaoyu dianying* 有声教育电影 (1937), by the Columbia PhD Chen Yousong, which included both translations and original material.[43]

While Pan found it sufficient to exercise control on cinema's educational powers at the level of the script, leaving the broader question of cinema as an industry to the forces of the market, the educators concerned themselves with all levels of production,

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[39] Zong, 42.
[40] Zong, 43.
[41] Zong, 211-13,
[42] Francois Devereux, *The Educational Talking Picture* (Chicago: The University of Chicago Press, 1933).
[43] Chen Yousong, *Yousheng jiaoyu dianying* (Beijing : Beijing zhong xian tuo fang ke ji fa zhan you xian gong si, 2007).

distribution, and exhibition, acutely aware that the asymmetrical contours of China's commercial film industry rendered it recalcitrant. The opposition between broad and narrow definitions of educational cinema thus had more than semantic import, implicating the entire ensemble of institutional, technological, economic, and aesthetic concerns within which motion pictures acquired pedagogical significance. Essential to this ensemble were concerns about the uneven relationship between international film markets—particularly the dominance of Hollywood on Chinese screens—and the Chinese masses' aesthetic predilections.

Low Amusements

Zong Liangdong's fear of the "low amusements" (*diji quwei*) was, in fact, an echo of an earlier conversation surrounding the censorship of martial arts and magic spirit films in the early 1930s. The year 1930 saw the consolidation of the Nanjing government and the establishment of the first nation-wide censorship board presided over by representatives from the Ministries of Education and Interior, known as the Dual-Ministry Censorship Board.[44] Enforcing its rulings by means of an elaborate system of screening permits, the board put both political and instructional concerns at the center of Chinese film administration.[45] Besides for targeting foreign films that trafficked in degrading representations of China and Chinese, the Board's first major project was to

[44] For a treatment of Chinese film censorship during this period see Zhiwei Xiao, "Prohibition, Politics, and Nation Building: A History of Film Censorship in China," in Daniel Biltereyst and Roel Vande Winkel, *Silencing Cinema: Film Censorship around the World* (New York: Palgrave McMillian, 2013).
[45] Gu Qian discusses the centrality of education to film administration in *Guomin zhengfu dianying guanli xitong* 1927-1937 (Beijing: Zhongguo guangbo dianshi chubanshe, 2010).

suppress the onslaught of cheaply made films about ghosts, spirits, and flying warriors—so-called "martial arts and magic spirit films" (*wuxia shenguai pian* 武侠神怪片) which had become popular in the late-1920s for audiences in China and overseas Chinese communities.[46] Imbued with what Zhang Zhen describes as an "anarchic body language" that threatened to spill beyond the screen, the films became subject to high level critique, culminating in the inclusion of clauses on films that "harm customs of decency or public order" and "advocate superstition [*mixin* 密信] or falsehoods [*xieshuo* 邪说]" to the four-point censorship laws promulgated by the Dual-Ministry board.[47] In a speech to the NECS in 1932*,* Chen Lifu's offered the Guomindang state's canonical diagnosis of the problem. According to Chen, the deleterious effects of American films on Chinese spectators owed less to the films themselves as the mismatch between their contexts of production and reception. Because the United States was "an industrially successful and resource rich nation" where "people live in conditions of extreme abundance," its screens were naturally "filled with maudlin and flesh numbing [*xiang yan rou ma* 香艳肉麻] films, which spare no talent in portraying the splendorous and decadent."[48] Put on Chinese screens, however, the same films "immediately cause the audience to feel China's lowliness and impoverishment, sowing a sense of discouragement and defeat,

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[46] For an in depth discussion of martial arts and magic spirit films, see Chapter 6 of Zhang Zhen (2005) and Chapter 1 of Weihong Bao, *Fiery Cinema*: *The Emergence of an Affective Medium in China, 1915-1945* (University of Minnesota Press, 2015).
[47] Zhang Zhen, 240. Matthew Johnson, "Propaganda and Censorship in China Cinema," in *Companion to Chinese Cinema,* ed. Zhang Yingjing (Oxford and Malden MA: Blackwell, 2012), 153-78.
[48] Chen Lifu, *Zhongguo dianying shiye de xin luxian* (Nanjing: zhongguo jiaoyu dianying xiehui, 1934), 1.

and crushing the will for progress."[49] Moreover, such films aroused feelings of envy in the average Chinese filmgoer, rendering them "unable to extricate themselves from the lifestyle of dispirited extravagance."[50] Despite the recent upsurge in domestic productions, private film companies could not escape the dynamic that Hollywood cinema's wayward circulation had already created:

> In recent years the Chinese film industry has understood the situation clearly. Everyone is raising the slogan of "national productions," but the capital of private individuals is limited and too many objective obstacles exist, so it is not easy have hope. In order to preserve their own hard-earned capital, the average film merchant has no choice but to yield to the inclinations of the lowest kind [*diji quwei* 低级趣味], coming up with weird films that propagate superstition, like *The Burning of Red Lotus Temple*, or films that entice lechery and banditry in order to entice and swindle audiences, eventually causing social morality and popular psychology to erode and flow away like a river's current. This is no small regret for Chinese education and culture![51]

For Chen, there existed a direct circuit between the volatility of capital and the tastes and inclinations of the masses. Chinese efforts to compete in globally uneven film markets translated into a race to the bottom, where the spiral of "tastes" (*quwei* 趣味) became an indicator of social anomie.[52] The duty of the censorship committee and the NECS was

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[49] Chen, 1.
[50] Chen, 1.
[51] Chen, 1-2.
[52] *Quwei* is a notoriously difficult, and rarely defined, word in Chinese art criticism, used earlier but with a revival in the early twentieth century. Combining *qu* 趣 which means "interest" or "delight" and *wei* 味, which means "taste" or "flavor," *quwei* glosses the uncertain threshold

thus find a way to stop the depreciation of taste, negatively, by controlling the flow of films, and positively by "subsidizing the Chinese film industry, in which there is still hope for elevating taste and enriching content."[53]

Essential in Chen's discourse was the social Darwinist interest in in the relationship between organism and its environment, where the problem of national cinema concerned how well cinema was adapted to a national context. And the Chinese environment, according to Chen, was not the place for idle amusements, since China was still "toiling at the beginning" while "everyone else [had] gotten on track."[54] Chen went on to prescribe the five categories of "films that China needs," which comprised of (1) films that promote national spirit, (2) films that encourage production and reconstruction, (3) films that inculcate scientific knowledge, (4) films that develop revolutionary spirit, and (5) films that encourage civic morality. The categories would continue to be touchstones in the Society's work, to be cited and recited. Being general themes, however, they could only voice the pious wishes of Guomindang cultural policy, while their purchase on reality depended on how they were enacted at the institutional level. The 1932 lecture took for granted that the commercial film industry formed the technical and artistic foundation of the NECS' efforts, thus eliding, at the moment, the possibility of a parallel industry. State subsidy of the private industry appeared as the only way for stabilizing the relationship between cinema and its "environment," an opinion reflected in the 1933 NECS' document *The Way out for the Chinese Film Industry,* prepared by the

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between the alimentary and the aesthetic, attention and appetite, two poles that Chinese aesthetic tradition more generally. I have thus translated it with a variety of English words in order to extract the most context-appropriate meaning.

[53] Chen, 2.

[54] Chen, 1.

pedagogue Cai Yuanpei (1868-1940), a member of the executive committee.[55] *The Way Out* called for the various private studios to make "finding a way to save china" the prerequisite for their own success, prescribing five key subjects that films should address (poverty, ignorance, weakness, selfishness, and disorder) and five priorities for industrial development (hinterland exhibition, the sound film, industrial cooperation, state subsidy, and eliminating opportunism).[56]

The worries about the opportunism forced on private enterprise by the Darwinian marketplace found in these official documents were but institutional continuations of debates already taking place in the Shanghai film milieu. It was by in large a geographic anxiety, fearful of uncontrolled flows of film and capital across borders, in turn triggering apprehensions about national sovereignty in the age of high imperialism. Underneath the threat of national dissolution at the hands of imperialist interests (a palpable possibility in the 1930s) was dysphoria of a more epistemological nature stemming from marked non-correspondence between borders, markets, masses, and the state's institutional capacity. As Zheng Junli notes in his pioneering history of Chinese cinema, the martial arts and magic spirit craze, which remained a mark of infamy for the film world throughout the 1930s, was driven by the market of ethnic Chinese in Southeast Asia (Nanyang), who, subject to European colonial censorship and outside the scope of the nationalist enlightenment project, kept up the demand for "low amusements" as opposed to serious fare with nationalist themes.[57] May Fourth luminary Yu Dafu thus denounced Nanyang

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[55] "Dianying shiye zhi chu lu" (1933), in *Zhongguo dianying ni bu zhi dao de na xie shi'er,*, ed. Sun Jiansan (op. cit.), 400..
[56] "Zhongguo dianying shiye," 400-1.
[57] Zheng Junli, "Zhongguo dianying fazhan jian shi" (1936), in *Zhongguo wusheng dianying,* ed. Li Suyuan (Beijing: Zhongguo dianying, 1996), 1417. Volume henceforth cited as ZWD.

markets for "forcibly reducing the tastes of the Chinese to those of Chinese merchants living in the colonies," resulting in "the dissolution of this already deplorable sense of taste (*quwei*)."[58]

The "revival of Chinese cinema," the trademark of the recently founded Lianhua Company, thus required the securing of exhibition markets through vertical integration.[59] Established in 1930 through the merger of four smaller production companies with founder Luo Mingyou's expansive theater chain, Lianhua's business model stressed increased cooperation between producer and exhibitor.[60] "Our objective," read a company notice published in 1930, "is to wash out the long established corruption of domestic cinema and make products that contribute to the social betterment and suit the needs of art. We can also alleviate the panic of the theaters and resist the manipulation of foreign film merchants."[61] The Lianhua model, which pitched films of quality against what were seen as shoddily made martial arts and magic spirit films, rose to prominence in the early 1930s, creating a standard that its competitors took up, urged on by declining box office returns and pressure from an increasingly vocal coterie of left-wing critics.[62] Mingxing Studio co-founder Zheng Zhengqiu, who in 1933 confessed to "accommodating to [his] environment" by caving to the whims of petit-urbanite

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[58] Yu Dafu, "Dianying yu wenyi" (1927), ZWD, 449.
[59] Guo Haiyan, "Luo Mingyou yu guopian fuxing yundong zai renshi," *Dangdai dianying* 2 (2016), 93-7.
[60] "Chuang ban lianhua yingye zhipian yinshua youxian gongsi qi yuan," ZWD 67.
[61] "Chuang ban lianhua yingye," ZWD, 68.
[62] Guo, 97.

audiences and Southeast Asian film merchants, declared that from now on Mingxing would take the "progressive path."[63]

"A Deformed Baby with Oversized Head and Weak Feet"

The story of the cinematic revival in the 1930s, canonized by Mainland Chinese film historiography as the rise of the "left wing film movement," has been the subject of extensive scholarly discussion and debate.[64] Recent research has challenged the left-wing label, demonstrating manifold cross-contaminations between "rightists" and "leftists," as well as between "leftists" and "modernists," revealing the degree to which Chinese film history of the 1930s remains an unsettled picture. As articulated above, the trails of discursive borrowing between industry and state officials show that the educational film movement played an active role within the conversations of filmmakers and critics often thought to be at odds with the government's pedagogical programs. As I have argued in the introduction, the educational film did not comprise a genre or an industry in China, but a developmental interface, a framework through which the structural dilemmas of semi-coloniality were made visible, debated, and acted upon. The educational film thus took on different meanings in different contexts. In commercial film discourse, "cinematographic education" took on an eclectic and loose consistency, becoming in some instances an advertising motif and, in others, the terms of invective. *Spring Silkworms* (*Chun can* 春蚕 Dir. Cheng Bugao, Scr. Xia Yan, 1933), a Mingxing

[63] Zheng Zhengqiu, "Ru he zou qianjin zhi lu" (1933), in *Bainian zhongguo dianying lilun wenxuan vol. 1* (Beijing: Wenhua yanjiu chubanshe, 2006), 129. Source henceforth cited as ZBN.
[64] For English-language sources see Huang Xuelei (2014); Zhang Zhen (2005); Weihong Bao (2012); Laikwan Pang, *Building a New Cinema in China: The Chinese Left-Wing Film Movement, 1932-1937* (Lanham: Rowman & Littlefield, 2002).

collaboration between veteran director Cheng Bugao and leftist writer Xia Yan, was advertised as "the first shot fired in educational cinema," yet met lukewarm reception on the basis of its generic hybridity (an issue I address in the next chapter). Here, I highlight an example from the critical discourse, namely, the use of the term in the famous "hard versus soft" film debates, to shedding light on the dilemmas afflicting the broad definition.

The "Hard versus Soft" film debates took place in Shanghai film magazines over the course of 1933 and 1934, set off by a set of articles by modernist critics Liu Na'ou and Huang Jiamo lambasting the recent rise of didactic and ideologically focused works. Its namesake can be credited to Huang's 1933 essay in the journal *Modern Screen,* which complained that the leftist emphasis on ideology (*yishi* 意识) was "filling the soft celluloid with stiff dry doctrines."[65] Surmising the purpose of cinema as "ice cream for the eyes and a sofa for the soul," a momentary release from "the heavy burden of life," he decried the recent left-wing productions as "empty, lifeless, unconvincing, and shallow."[66] Huang's essay in *Modern Screen* was soon followed by Liu Na'ou's more considered piece, which emphasized that "how something is depicted" was more important than "what is depicted," deploring that the vast majority of leftist material had neglected attention to cinematic form.[67] For Liu, what was unbecoming of recent

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[65] Jiamo, "Yingxing yingpian yu ruanxing yingpian (1933)", in *Sanshi niandai zhongguo dianying pinglun wenxuan,* eds. Chen Bo and Ming Yi (Beijing :Zhongguo dianying, 1993), 843. Volume cited henceforth as SSND.
[66] Huang Jiamo, 844.
[67] Liu Na'ou, "Zhongguo dianying miaoxie de shendu wenti (1933)," in *Bainian zhongguo dianying lilun wenxuan,* ed. Ding Yapin (Beijing: wenhua yishu chubanshe, 2000), 158. The anthology is henceforth cited as BNZGDY. Unless otherwise announced, I am drawing from Adrian Song's translation of the piece, in the in-process volume *Chinese Film Theory and Criticism,* eds. Hongwei Chen, Victor Fan, Hong Guojuin, and Jason McGrath.

progressive films such as Lianhua's *Night in the City* (*Chengshi zhi ye* 城市之夜 Dir. Fei Mu, 1933) and *Morning in the Metropolis* (*duhui zaochen* 都会早晨 Dir. Cai Chusheng, 1933) was not their subject matter, but the way in which their subject matter had encouraged an overemphasis on medium long shots and intertitles at the expense of visual dynamism and aesthetic balance. "Heavy content and shallow portrayal," was the result, with "society, class, ideology, all crammed into a broken shed without the proper structural support."[68] The autonomy of art, which for the soft critics was strangely coterminous with pure entertainment, was essential for organic balance. A cinema of functionality (*zuoyong* 作用) failed to achieve its purpose, since, as Liu poignantly observed, it produced verbose material unlikely to be inviting to a mass illiterate audience. Complementing his architectural metaphor with an anatomical one, he called such films "deformed babies with oversized heads and weak feet."[69] In one of the piece's crescendos, Liu encourages "all my dear friends who expound the 'function' of art" to "make newsreels and educational films" rather than turning "art into an unfashionable Ibsen-esque tool for your 'problems' or 'opinions'."[70]

Leftist critics responded to Liu and Huang with massive invective, featuring more than a dozen articles in multiple venues, including newspaper film supplements and trade magazines. In perhaps the most rigorous of these responses, serialized in the film supplement to the *Shanghai Morning Post* (owned by Pan Gongzhan, but a leftist favorite for film criticism), the critic Tang Na "settled accounts" with Liu and Huang's observations line-by-line, assisted by Soviet theories of aesthetics and Japanese

[68] Liu Na'ou, BNZGDY, 161.
[69] Liu Na'ou, BNZGDY 161.
[70] Liu Na'ou, BNZGDY, 163.

discussions of the "tendency film" (*qingxiang dianying* 倾向电影).[71] In response to Liu, Tang admitted frankly that contemporary progressive films suffered from flaws in constitution, from the "disease" of overemphasized content. Yet, he argued that what the soft critics failed to see was "the necessity behind [the disease]," or the "positive meaning of these 'diseased' works."[72] Taking a dialectical approach to form-content relations, Tang's response highlighted the historicity of form, or the conditions that made it necessary for Chinese films to incorporate more content than they could swallow. The soft critics' "glaucoma infected vision" (words coined by screenwriter and "hard critic" Xia Yan), stemmed from the fact that they refused to acknowledge the reality that "in the struggle on behalf of society, [film] must become a special educational measure."[73] The soft critics, Tang continued, "understand the educational film only by its narrow meaning, and they call for [the primacy of] 'amusement' [*quwei*]."[74]

Although a blip within a conversation that incorporated a slew of issues pertaining to aesthetics, urbanism, technology, ideology (*yishi*), audiences, and mass taste, the quibble over "narrow" and "broad" meanings of the educational film provides clarifying context for the pressing questions of form and content with which the interlocutors were preoccupied. Liu's dismissive genre distinction between art, on the one hand, and newsreels and educational films, on the other, drew on a recognizable division of labor between forms of useful cinema, subservient to external functions, and "film as art," first and foremost concerned with the demand of structural integrity. A polyglot who read European and American film writings in their original languages, Liu based his argument

[71] Tang Na, "Qingsuan ruanxing dianying lun," in SSND, 746-63.
[72] Tang Na, SSND, 754
[73] Tang, SSND, 750. Luo Fu (Xia Yan), "Bai zhang le de 'sheng yi yan'," SSND, 770-2.
[74] Tang, SSND 750.

on the authority of distinctions between "art" and "functionality" that were less likely to be clear to his interlocutors.[75] Iterating the spatial divisions between art and social planning operative in full-fledged bourgeois societies, Liu's admonition for progressive filmmakers to make non-fiction films brought coherence to both politics and art by eliding their problematic threshold. In Tang Na's response, *all cinema was educational cinema*, which meant precisely that no film was exempt from the demands of the political, particularly in a period of national crisis, when cinema was to become a "special" [*teshu* 特殊] educational measure (a term that resonated with the language of martial law and extraterritoriality). That the introduction of political messages into films might "deform" them, creating monstrosities where the form was not mature enough to support the message, comprised not an artistic problem but a *historical* one that called for a dialectical resolution. Here—as in Chen Lifu's formulation of "the films that China needs"—the unity of form and content could only be speculative and prescriptive. Political discourse functioned as an impossible demand to which the artist and the industry struggled to produce a response. Whether the failure of such a response could be construed as a critique of existing society (a negative dialectic) or, alternatively, an injunction to try harder (a positive dialectic), the leftist argument for the broad definition of cinematographic education made palpable the asymmetries of the cinema-society couplet.

While the hard critics saw the imbalance in contemporary films as inevitably awkward first steps of a new cinema and the soft critics as a disease to be repudiated,

[75] One of his favorite theorists was Rudolph Arnheim, whose opinions on sound advanced in the 1933 essay "The Complete Film" had made their way into Liu's essays such as "Dianying xingshi mei de tansuo" [Searching for Formal Beauty in Cinema], *Wanxiang* 1 (1934), n.p.

what they shared was the aesthetic sensibility that a successful work synthesized form and content into a unified whole. Yet, it was formal and generic hybridity that characterized the majority of left wing films produced in the 1930s, something which both camps recognized in their criticism of specific films. This internal heterogeneity that the Lianhua director Sun Yu characterized as "cinematic chop suey" was, however, not the result of avant-garde intentions, but rather the product of an educational aim that refracted the heterogeneity of the society it sought to enlighten.[76] As the director Cai Chusheng, Sun Yu's colleague at Lianhua, elegantly put it:

> Let's say that there are two kinds of films: one has simple plotline, portrayed seriously, with a hundred percent correct view of the world and of life; but it only gets twenty-percent of the audience. The other is brimming with material, goes beyond mere entertainment, and although has only twenty percent correctness gets a hundred percent of the audience. The former twenty percent already understands things to a high degree—perhaps even more so than the filmmaker—and does not need your additional 'instruction'. The films thus preach to the choir. Presently, [such films] won't be able to expand their audience base. Of the latter hundred percent, at least sixty need you to give them new awareness… Comparing the two, I'd take the latter over the former, because in the new view, and under these extreme circumstances, nobody has an excuse not to rid themselves of a bit of backwardness, and that's exactly the situation of the majority of the mass

[76] Cited in Zhang Zhen, 295. Whereas, according to Peter Bürger, the avant-garde work rejected unity while still demanding to be read as a hermeneutic totality. See Peter Bürger, *Theory of the Avant Garde,* trans. Michael Snow (Manchester: Manchester University Press, 1984).

audience.[77]

Cai's discourse, reproduced at length here, was a response to his critics' accusations of generic inconsistency, particularly, that he was bending to the desire for "low amusements" by peppering his serious films with comedic gags.[78] His recent film, *The Confused Lamb* (*Mitu de gaoyang* 迷途的羔羊 1936), was emblematic of this style, telling the story of an orphaned street urchin floating through society, first picked up and rejected by a rich family, then taken in by a progressive orphanage, interspersed with slapstick performances and light humor. While the film can be read as a case study of how the wanderings of the itinerant poor defy narrative integration as such, Cai's comments connect this narrative fragmentation to the spectatorial milieu of uneven development. Drawing an inverse ratio of backward versus advanced audiences in proportion with serious versus comedic material, Cai's discourse limned the deformed circuitry of "taste" (*quwei*) connecting cinema to its differentiated audiences. In this way, the Shanghai films of the 1930s internalized the heterogeneity of its "petty urbanite" audience, a phenomenon that was not localized to Cai Chusheng's works but could be observed across the oeuvres of a variety authors and was in some cases played out in the tension between screenwriter, director, and source material (as we will see in the next chapter). Although certain directors (such as Sun Yu, Yuan Muzhi, and Cai Chusheng

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[77] Cau Chusheng, "Huike shi zhong," in ZBN, 267. Originally published in *Dianying-Xiju* 1.2-3 (1936).

[78] As leftist critic Zheng Boqi writes on *Song of Fishermen* (Yu guang qu, Cai Chusheng, 1935): "the author puts on the mask of a clown in order to accommodate the environment. But in his breast he burns with righteous feeling. The idealism he embraces breaks through the calm mien of his demeanor, so that the mask occasionally cracks to reveal a serious expression. The clown he plays occasionally spits out a few solemn words." Such comments, although critical of Cai's clowning, nonetheless reveal a deep sense of admiration. The expression "the clown…who occasionally spits out a few solemn words" can indeed be read as a poignant allegory of cinema-spectator relations in the Chinese 1930s. Zheng Boqi, "Yu guang qu," SSND, 334.

himself) were talented enough to make heterogeneous elements cohere in readable totalities, the tendency toward monstrosity decried by the soft critics was far more common.

The Instructional Gag

Exploring the broad definition of the cinematographic education, the Shanghai film industry encountered contradictions that challenged the structural coherence of not only "cinema" but "education" as well. In the language of the leftist film critics, the centrifugal pressure put by audiences on formal coherence can be surmised with a polysemic term *chuancha* 穿插, previously used in the theater world to describe the insertion of comedic acts into a longer drama, or alternatively, the screening of early shorts in the teahouse variety show.[79] Rendered literally, the characters mean "to stick in," emphasizing a break in dramatic continuity. Writing on *The Golden Years* (*Huangjin shidai* 黄金时代, Dir. Bu Wancang, Scr. Tian Han, 1934), a United Arts (Yihua 艺华) film whose protagonists awaken from a life urban profligacy to pursue the noble mission of rural education, the critic Ke Ling praised the director for promoting the literacy movement and espousing love for country while observing, on the other hand, that such themes were "merely stuck in as gags" (*buguo shi chuancha* 不过是穿插). Citing specifically the male lead Jin Yan's inconsistent acting and the female lead Yin Mingzhu's ill fit for the role of student, Ke complained that the film felt "thrown together, rather than composed [*goucheng* 构成]."[80] In this instance, *chuancha* is used to refer not to comedic gags but rather to educational content *inserted* as a comedic gag, implying

[79] Ke, "Huangjin shidai," *Diansheng* 3.38 (1934), 754.
[80] Ke, 754.

that the content remained *inessential*.

While the print of the film is no longer extant, published scripts and reviews reveal it to be heteroglossic both at the level of plot and cinematic technique. Directed by the veteran filmmaker Bu Wancang and written in secret by the leftist playwright Tian Han, the film was loosely adapted from a novella by Zhang Henshui with the same name (alternately called "The Years Flow By").[81] The adaptation modified the plot of the story significantly, adding a narrative line that was purportedly inspired by the life of Tao Xingzhi, a prominent mass educator, who applied Dewey-inspired methods to render literacy a practical matter. In a published commentary on the film's release, Bu Wancang observed that "films are neither commodities nor the diversions of idle people, but the educational weapons of science and knowledge," adding that he wished for *The Golden Years* to be a "meaningful and valuable educational film."[82] Making use of narrational techniques culled from both Hollywood continuity and Soviet montage, *The Golden Years* embedded its educational moral in a convoluted web of romantic trysts and familial relationships, comparing the fates of two pairs of male and female students studying in the city. Where the two idle socialites Li Yanong and Tao Li drive around in fast cars and tarry with romance, the impoverished pair Chang Chun and Zhang Xiaomei sacrifice the latter in favor of the life of teaching. While Chang Chun grows up to found a literacy school, the Yanong family falls into ruin due to a mistaken investment. The story of karmic retribution, common to the middlebrow morality tale genre, was however incomplete without romantic triangulation, in particular Changchun's unrequited love for Xiaomei, who, upon rejecting his advances is struck by a car, with Yanong coincidentally

[81] Zhang Henshui, *Si shui liu nian* (Shaanxi: Shannxi renmin chubanshe, 2008).
[82] Bu Wancang, "Shezhi huangjin shidai de jingguo," *Yingmi zhoubao* 1.1 (1934), 6.

behind the wheel. Touched by her pathos, he takes her home and is about to propose marriage to her when he notices that her ring finger is missing from her hand—the result of an industrial accident, which the film shows in flashback—and withdraws his offer. Meanwhile, Changchun decides to dedicate his life to literacy education, spurred by the revelation that his mother died because she could not read the "rabid dogs" sign at the gate of a Shanghai dog sanatorium (shown also in flashback).[83]

As this reduced summary of the film's plots suggest, *The Golden Years* exemplified a film "brimming with material," undecided as to its final form. In it, the protagonist pair is offered a choice between two versions of modernity, one representing a "lifestyle of dispirited extravagance," to use Chen Lifu's words, and the other "embracing the values of education and culture, and thus movement from cities back to the countryside, from consumption to production, from impoverishment to construction."[84] Bu Wancang had already filmed the former choice in his immensely popular *Humanity* (*Renlun* 人伦, 1932), a morality tale that depicted a peasant student led astray in the city by women, fashion, and luxury.[85] Continuing to send for money from his parents to feed his extravagant habits, the student returns home to find that father is dead of starvation, having sacrificed all his hard earned silver for his son's education. Criticized by the left-wing critics as an endorsement of feudal values (since its main criticism of the protagonist was that he was not filial), the film nonetheless received favorable mention in

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[83] The plot summary details are cobbled together based on the synopsis in *Zhongguo zuoyi diangying yundong,* ed. Dianying ju dang shi ziliao zhengji gongzuo lingdao xiaozu (Beijing: Zhongguo dianying chubanshe*,* 1993), p. 281 and a film novella published in 1935, "Dianying xiaoshuo: Huangjin shidai," *Xiaoshuo* 7 (1934), 28-9, 35, 41.
[84] Chen Lifu, 6.
[85] Laikwan Pang, 27. *Humanity* became one of the most popular films of the year, reportedly screening for eleven days at the Peking Theater and breaking all box office records in northern China.

Chen Lifu's *The New Path for Chinese Cinema,* and in 1934 the censorship board awarded it first prize in its annual film competition.[86] Nonetheless, Bu sought, in *The Golden Years,* to make a different kind of film, one that more positively portrayed an alternative to the city's spiritual pollution. Creating doubles of each character, Bu sought to combine two films in one, a move that also asked the audience to choose between two different kinds of cinema. The characters themselves, however, are only able to make this choice on the basis of flashbacks that remind them of their lowly origins, Xiaomei by her industrial accident and Chanchun by his illiterate mother. Owing to the latter, however, it is already dubious why Xiaomei and Changchun exist in the same film alongside their rich doppelgangers. That they two are confronted by this choice only because of frustrated romantic interests gestures at the fact that the high educational road remained cinematically unthinkable in and of itself. Critical reviewers were cognizant of such internal fissures, which were visible not only at the level of narrative but in the casting as well. Echoing Ke's observations, Tan Yun observed that heroine's "every gesture, especially her facial expressions, is typical of a young mistress (*shaofu* 少妇)" and not of a poor student, meanwhile Jin Yan's character retained the mien of a student when he should have been a worker.[87] Bu had, in fact, equivocated on his choice of female lead, holding fruitless auditions for new talent to play alongside his regular star Jin Yan before settling on Yin Mingzhu. Yin had appeared in acclaimed films of the 1920s such as *Yan Ruisheng* (阎瑞生, Dir. Ren Pengnian) and *Sea Oath* (*Hai shi* 海誓, Dir. Hou Yao), where she played glamorous modern mistresses. As the reviews made clear, her

[86] Chen Lifu, 17. Guo Youshou, "Zhongguo jiaoyu dianying xiehui chengli shi," 268.
[87] Tan Yun, "Pin huangjin shidai," *Xiandai xinwen* 1.1 (1934), 10.

performance was far removed from that of rustic innocence demanded of her character by the script.[88] Similar critiques were leveled at the actress Chen Yanyan's performance in Bu Wancang's previous film, *Maternal Radiance* (*Muxing zhi guang* 母性之光, scr. Tian Han, 1933), also starring Jin Yan, pointing to persistent frictions between educational aims and performance styles, an issue taken up in many treatises on acting from this period.[89] The mismatch between star and character, which was doubled by shoddily integrated romantic and pedagogical elements, made the film's pedagogical theme appear the equivalent to a comic gag, stuck in to appease the intellectuals and film critics. A similar critique spoke of the "bright tail" that appeared at the end of films from this period, where patriotic ventures such as "going to the countryside" and becoming a school teacher comprised unearned endings on stories that would have otherwise not found satisfactory closure.[90] The critic Zheng Boqi argued instead that films of the period should avoid closure altogether in order to "put reality's contradictions and irrationality naked in front of the audience."[91] Critics less sympathetic to the cause of leftist cinema were faster to the take, placing the blame on the leftist critics who, "using an yardstick from Siberia" had forced the industry to make films that were tantamount to "dry teaching aids and clumsy magic lantern slides."[92]

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[88] Bu Wancang, 6.
[89] For example Hou Yi, "Muxing zhi guang," *Shishi xinbao* 8.6 (1933), in *Zhongguo zuoyi dianying yundong,* 513. Jason McGrath discusses the link between realistic acting and education reform in "Acting Real: Cinema, Stage, and Modernity of Performance in Chinese Silent Film," *The Oxford Handbook of Chinese Cinemas*, ed. Carlos Rojas (Oxford: Oxford University Press, 2013), www.oxfordhandbooks.com (Accessed 15 May, 2017).
[90] Xi Naifang (Zheng Boqi), "Dianying zuiyan," in ZBN, 150.
[91] Xi Naifang, 150.
[92] Jiang Jianxia, "Guanyu yingping ren," *Weiyi huabao* 1 (1934), n.p.

Accusations that films wore their educational meaning as "gags" (*chuancha*), "tails" (*weiba* 尾巴), and magic lanternslides, spoke to the degree that the commercial film industry appeared structurally unprepared for implementing cinematographic education, despite enthusiasm on part of filmmakers and critics. The disjunctive relations between parts occasioned by audience heterogeneity and the film industry's penchant to "accommodate the environment" instead of transforming it, spoke to the recalcitrance of cinema as an educational instrument, especially in its institutional inertia and its diabolical circuit with investment capital and consumer spending. Yet this did not stop educational cinema from becoming a watchword for censorship boards, filmmakers, and critics, who were eager to plug the powerful medium into new circuits of respectability, spectatorship, and social purpose. Focused primarily on the script, however, such approaches lost definition when they encountered the institutional inertia of the film industry and, even more so, the prospect of a wider spectatorship. Commercial cinema was, after all, was constrained to the urban, with more than half of the nation's theaters concentrated in the treaty port of Shanghai.[93]

"As long as Chinese cinema remains a commodity," said Lianhua co-founder Jin Qingyu at the 1935 NECS conference, "it can only reach the eyes of a portion of people…Chinese cinema has yet to make contact with the immense body of people who have not had the opportunity to be educated."[94] The prospect of a rural spectatorship, while attractive to the commercial studios, was in no way lucrative, requiring

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[93] U.S. Department of Commerce, "Motion Pictures in China," *Trade Information Bulletin no. 722* (Washington DC: Government Printing Office, 30).
[94] Jin Qingyu, "Xiaoxing dianying yu yidong fangying dui" [Small Scale Cinema and Mobile Projection Teams], *Zhongguo jiaoyu dianying xiehui tekan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935), 60

infrastructure development in the form of screening spaces, transport, and electrical networks in order to reach audiences with little consumer capital to spend.[95] The commercial studios held hope that governmental educational film initiatives would create a platform by which their films could reach a wider hinterland audience, thus not only resulting in government contracts but also patriotic fulfillment. In the next section, I examine the degree to which such aspirations were realized in the period leading up to the war, but also the degree to which Shanghai film productions ran astray of pedagogical arrangements.

Empty Talk versus Real Impressions

"If cinema is indeed an instrument for implementing social education, then the scope of this cinema's activity must of course be different from that of the common movie theater. There will also a divergence in content, exhibition style, and purpose. The reason is similar to why peoples' teahouses (*minzhong chashe* 民众茶社), peoples' stadiums (*minzhong yundong chang* 民众运动场) and other social education venues are different from regular teahouses, sporting venues, etc. Although the placement of projection equipment in a social education space is similar to that of a regular movie theater, in terms of goals and content, in the former one can convey the educational message more concretely. In other words, film is screened in a social education space with a definite goal. It could be said that those either carrying out or receiving instruction either establish or are given a point of departure. Because of this, films can afford to have

[95] Jin Qingyu, 60.

less parts entertainment than a normal feature, [but this] requires that the spectators (instructees) not bring their regular movie-going attitudes while watching (being educated by) them."[96]

Zong Liangdong thus lays out the differences separating the commercial movie theater from the space of social education. In an activity conditioned by definite goals and a hierarchical relationship between those who carry out (*shishi* 实施) and receive (*shoujiao* 受教) instruction, the "educational message" (*jiaoyu yiyi* 教育意义) acquired concreteness, and as such entertainment values could be de-emphasized. Nonetheless, as Zong points out, film screenings in a social education venue could not entirely dispense with efforts to sustain the audience's interest, and as such the instructor should accompany serious material with "supplementary films of an amusing character (*you quwei xingzhi de* 有趣味性质的)" in order to "arouse the motivation to learn."[97]

The social education space was, after all, not the same as a classroom, where the total immersion of children in the schoolhouse environment ensured that the "scope and objects of instruction are relatively fixed and convenient."[98] As part-time instruction directed at adolescents and adults already involved in industrial or agricultural production, social education addressed a heterogeneous population whose indistinctness was recognized by the neologisms coined to describe them.[99] In naming the target audience of social education cinema, Zong gave a nod to these neologisms by parenthetically

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[96] Zong Liangdong, 46.
[97] Zong, 46.
[98] Zong, 31.
[99] Indeed, the prolific lexicon of neologisms in social education work over the course of the 1930s, such as *jiaoyu dianying chang* (educational cinematheque), *jiangying* (lecture-screening), *shijiaozhe* (instructor), and *shoujiaozhe* (instructee), spoke to the newness and awkward nature of the entire enterprise for those involved.

qualifying common words for movie going such as "audience" (*guanzhong* 观众) and "watch" (*guanshang* 观赏) with what he believed were more accurate expressions, namely *shoujiaozhe* 受教者 and *shoujiao* 受教, terms that had developed out of the work of mass educators in the last decade. The s*houjiaozhe* (lit. "one receiving instruction," which I've translated as "instructee") is neither a student (*xuesheng* 学生, which implies having dedicated one's life to studies) nor an audience (*guanzhong,* implying a large unqualified number of viewers), but something in between. The social education cinema, according to Zong, was one that exercised some degree of control on the sex, age, and knowledge-level of those who entered its doors. Moreover, in such spaces, films were not simply shown, but were to be accompanied with supplementary activities, such as lectures, songs, exhibits, discussions, and medical checkups.[100] As such, it could arrest, to some degree, the corrosive spiral of mass taste (*quwei*) that continued to afflict commercial cinema, such to pursue a concrete program of educational uplift. Yet, as I show in this section, the shift from the commercial movie house to the circuits of social education opened up a new set of problems that reiterated those found in Shanghai, namely the fluctuations of pedagogical authority wrought by globally uneven image networks. Here, the tensions between the broad and narrow definition to surface yet again, but from a different vantage point.

Written in 1936, Zong's monograph drew heavily on the experiences of practitioners at mass education centers who had, over the course of the past two years, developed a repertoire for the use of cinema as a teaching aid for social education. In

[100] Zong, 46-7.

1933, shortly after the initial meeting of the NECS, the Shanghai branch committee of the Society launched an ill-fated screening program, renting educational titles from the German studio Ufa, and later relying on Eastman Kodak and League of Nations prints. Education Bureau chief Pan Gongzhan, who was on the committee, sought to pay for operations by levying screening fees on all students in the municipality, a funding model that was thwarted by widespread noncompliance.[101] As a result, the Shanghai "educational film experimental district" never expanded past small-scale operations, while it was the Jiangsu Provincial Mass Education Center in Zhenjiang that became the national flagship of Chinese audiovisual instruction. [102] Founded in 1930 amidst the new regime's ambitious initiatives to centralize once private adult and literacy schools into a nation-wide system of mass education (*minzhong jiaoyu* 民众教育), the Zhenjiang center served as a mobile hub for exhibitions, lectures, research, and the circulation of reading materials for literacy schools in the municipality and the eight surrounding rural counties.[103] Guided by provincial-level policies instituted by the recently appointed governor Chen Guofu, a member of the NECS and Chen Lifu's older brother, the official launch of the cinematographic education program occurred in January of 1934, when the Center refitted the lecture auditorium on its main campus for motion picture

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[101] *Zhongguo jiaoyu dianying xiehui huiwu baogao, di er nian hui* (1933), 8. Keyed into the Shanghai publishing world, Pan was an indispensable affiliate of the CC Clique (headed up by the brothers Chen Guofu and Chen Lifu), in 1932 launching the *Shanghai Morning Post* (Chenbao), a CC Clique mouthpiece that, unexpectedly, also became one of the main platforms for left-wing film criticism.
[102] *Zhongguo jiaoyu dianying xiehui huiwu baogao, di er nian hui* (1933), 8.
[103] Li Donghui, "Minguo shiqi Jiangsu sheng li minzhong jiaoyu guag tan zheng: Yi Jiangsu shengli zhenjiang minzhong jiaoyu guan wei ge an," *Zhenjiang gao zhuang xue bao* 23.4 (2010), 95.

screenings.[104] The renovations were considerable, and the new space boasted a separate projection room equipped with a Bolex Model D 16mm projector and a sound system produced domestically by a Shanghai company.[105] Later that month, a second facility was built on the Center's West campus, and the Center started mobile screenings on a subscription basis to schools, factories, and civil service institutions in and around the city.[106] Before consistent domestic educational film production began in 1935, the Zhenjiang Center sourced its films from the National Educational Film Distribution Office (*quanguo jiaoyu dianying tuiguang chu* 全国教育电影推广处), an organization that had been established in Shanghai by the film critic and NECS member Yang Minshi to distribute Eastman Classroom and League of Nations titles without fee.[107] By 1935, educational films produced by Jinling University, provincially produced newsreels, and select Shanghai commercial features with educational import were integrated into the intermedial events, which featured motion pictures, magic lantern slides, lectures, callisthenic exercises, and gramophone-led sing-alongs.[108]

The audiovisual committee, which was headed by Liu Zhichang, the director of the instruction (*jiaodao* 教导) at the Center, published widely about its work, drafting manuals, reports, diagrams, and theoretical treatises circulated in the Center's periodical *Mass Education Information,* as well as in a series of standalone texts. The target readers

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[104] Zhao Hongxiang, "Jiangsu shengli Zhenjiang minzhong jiaoyu guan dianhua jiaoyu gaishu" [Summary of Electrified Education at the Jiangsu Provincial Mass Education Center in Zhenjiang] (Zhejiang: Jiangsu shengli minzhong jiaoyu guan, 1937), n.p.. Henceforth referred to as "Summary." For a general chronology see Du Guangsheng et. al., "Zhenjiang minzhong jiaoyu guan xunhui dianhua jiaoyu de shijian ji zuoyong yanjiu," *Dianhua jiaoyu yanjiu* 227 (2012), 114-120.
[105] Liu Zhichang, "Dianying jiaoyu chubu shishi fa," *Minzhong jiaoyu tongxun* 3.10 (1934), 23.
[106] Zhao Hongxiang, 1-2.
[107] "Quanguo jiaoyu dianying tuiguang chu jian ze," *Shi zheng gong bao* no. 325 (1934), 11.
[108] Zhao Hongxiang, n.p.

of such materials were education practitioners, primarily those working at other mass education centers. In 1934, the audiovisual committee edited a special issue of *Mass Education Information,* which featured Liu Zhichang's long article "Preliminary Guide to Implementing Cinematographic Education," a manual for screening setups, equipment, film sourcing, plant management, and lecturing best practices. The guide and the Center's subsequent publications of this type were products of painstaking experiment, a process of groping in the dark "without established precedents or the guidance from experts."[109] For its uninitiated readers, the manual made the "educational film" palpable as an object with unforeseen qualities, embedded within technical, logistical, and architectural networks distinct from commercial movies. Being as the Zhenjiang center also ran subscription-basis screenings at schools and other public institutions, the manual also served to prepare host venues for the film team's arrival. Prefacing this content was a brief discourse on the powers of cinema for education, which situated cinema within broader problems facing education practice:

> When carrying out mass education, what one fears, what one fears the most, is empty talk [*kongkou shuo baihua* 空口说白话]. Empty talk cannot arouse the sympathy [*tongqing* 同情] of the masses. For example, if when we explain something to them, we try our best to make them believe it, but often because we don't have real evidence, our work will have failed to achieve real effect. [On the other hand], it might be said that educational films contain more than enough material for needs of teaching. This considerable material is entirely real [*shiji* 实

[109] Liu Zhichang and Jiang shecun, "Shiji de jiaoyu dianying jiangying fa," *Minzhong jiaoyu tongxun* 5.3 (1935), 1.

际] and provides positive guidance. Employing it to teach is the easiest way of earning the masses' sympathy by creating real impressions. It would be impossible to speak of [the educational film] and empty talk on the same day![110]

Liu's comments, which can on the one hand be read as a rather typical eulogy of cinema's ability to deliver realistic impressions, on the other calls out to be examined in the specific terms with which it situated motion picture technology within the broader problem of spoken authority in the mass education context. As a corrective to the lecturer's anxiety of speaking publically before uninitiated and undisciplined masses, parsed in Liu's discourse as the problem of "empty talk" (*kongkou shuo baihua*), the motion picture continued the work of other visual aids, in particular the magic lanternslide and the illustrated poster. Introduced by missionaries in the mid-nineteenth century, the practice of itinerant visually aided lectures was taken up by modernizing educators by the turn of the century in the service of literacy teaching, inculcating popular science, introducing modern neologisms, and proselytizing against "backward customs" such as foot-binding, mah-jongg, and extravagant weddings.[111] Such practices, which formed a distinct supplement to the modern school system, were institutionalized as popular education lecture halls, which after 1928 became integrated into the GMD state's provincial mass education apparatus.[112] Before it discovered cinema and radio, the Center's main job was to host exhibits and service the popular schools in its surrounding

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[110] Liu, 21.
[111] Paul Bailey, *Reform the People: Changing Attitudes Towards Popular Education in Early Twentieth-Cenutry China* (Vancouver: University of British Columbia Press, 1990), 72.
[112] Zhou Huimei, *Xin guomin de xiangxiang: Minguo shiqi minzhong xuexiao yanjiu* (Beijing: Bejing shifan daxue chubanshe, 2013), 30.

counties with easy reading materials, mobile exhibitions, and traveling lectures (including the "costume lecture," a cross between drama and lecture).[113]

The circulation of images, social scientific visualizations, theatrical acts, medical checkups, and exhibits featuring anything from national product samples to modern agricultural tools served to shore up the lecturer's authority by offering referential bases for spoken utterances. Popular lectures, after all, emerged in a period where speech and diction were in flux following seismic shifts in the structure of written authority. The abolishment of the imperial examination system in 1905 and the official adoption of the *baihua* vernacular in primary schooling in 1920 occasioned the decline in the authority commanded by those who could quote and explain lines from canonical texts (a common practice among gentry interested in moral uplift) and the simultaneous elevation of a once derided "plain speech" in prestige.[114] The "talk" (*baihua*) of "empty talk" (*kongkou shuo baihua*) exploited on the equivocal range of meanings that *baihua* connoted in this period, including "wasted speech," "plain speech," and the new written vernacular, which sought to elevate the latter connotation and suppress the former. Educated in school systems that taught in the *baihua* vernacular, lecturers in the 1930s addressed their audiences with speech patterns saturated with neologistic borrowings from Japanese *kanji,* missionary translations, and haphazardly translated or transliterated terms from European languages, on the one hand, and new committee-promulgated grammatical rules, on the other

[113] Zhu Yu, 37-46.
[114] Robert Culp, "Teaching *Baihua*: Textbook Publishing and the Production of Vernacular Language and a New Literary Canon in Early Twentieth Century China," *Twentieth Century China* 34.1 (2008), 4-41.

(discussed further in Chapter 3).[115] Whereas in formal educational settings, such a discourse was reinforced with textbooks, classroom discipline, and examinations, in the context of the popular lecture, the effects of its enunciation were far less predictable, confronting the speaker an unparalleled anxiety that their words were empty of both meaning and referent.[116] Mass education publications in this period were suffused with guides to public speaking, which emphasized verbal strategies and programmatic body language as a way of suffusing speech with emotional presence.[117] Visual aids, on the other hand, comprised a referential rerouting of the speaker's enunciation, supplying the "instructee" with "real evidence" (*zhenshi de zuozheng* 真实的佐证) of a distant phenomenon or object. In this respect, cinema surpassed all others in economy and efficacy: "For example, if I wanted to speak of the propagation of a certain kind of bacteria, the lives of people in a foreign land, or a motivations of a great historical figure, then no matter how delicate the drawing or verbal description, no matter how eloquent

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[115] For a discussion of *baihua,* see Edward Gunn, *Rewriting Chinese : Style and Innovation in Twentieth-Century Chinese Prose* (Stanford, Calif: Stanford University Press, 1991). Whereas the former unmoored classical learning from the prestige of a guaranteed position in governmental service, the latter institutionalized the shift to a written language that had barely been invented. The *baihua* vernacular movement elevated plain speech to the prestige of literature, yet the largely non-phonetic character of Chinese writing and dialectal heterogeneity meant that the pronunciation, grammatical and lexical elements of *baihua* still had to be worked out by experiments in literature, high profile committee meetings, and pedagogical practice. In other words, the institutional shift to the vernacular involved more than a mapping of writing onto existing speech, but also the invention of a new style of speech capable of serving as vernacular.

[116] The best cinematic illustration of this can perhaps be found in the Mao-era film *Dong Cunrui* (Dir. Guo Weizhi, 1955), which features a scene where a May Fourth style intellectual attempts to educate Eight Route soldiers with an effete neologism filled lecture. To this, the film opposes the rustic discourse of the commanders and the experiential learning of physical training, war and military democracy.

[117] Ling Kang, "Sounding Body: Public Speech and Embodied Voice in Revolutionary Cinema," Society of Cinema and Media Studies Conference, 25 March, 2017, Fairmont Hotel, Chicago, IL. Panel presentation. Also see Ling Kang's forthcoming dissertation on this topic.

the speech, it will not be as real (*zhen qie* 真切) as cinema."[118] Guo Youshou, official NECS historiographer and head of the higher education division at the Ministry, echoed the sentiment when he wrote that: "our country's education system is in its germination period: schooling has yet to be universalized, not to mention social education. To speak of the polar expeditions, travels to exotic places, the sights of mountains and valleys, social customs, historical feats, the words of philosophers, the manufacturing process, the invention of things, the human anatomy, the metamorphoses of microscopic organisms…all this relatively obscure and distant scientific knowledge can be best expressed in film. Even national morality, hygienic knowhow, and the state of each country's agricultural industry, the implementation of policies concerning urban and rural…film is the best way of informing and introducing these matters, of making up for the shortcomings of the education system."[119]

Cinema's claim to reality and referentiality, however, was less epistemological as it was affective, as evinced in Liu's curious choice of the word "sympathy" (*tongqing*) to describe the educational film's effect on audiences. As Haiyan Lee points out, "sympathy" (*tongqing*) was a term with wide-ranging ramifications in Republican China, comprising a category in which questions of intimacy and authenticity in the national *gemeinschaft* were played out.[120] Standing opposite sympathy was the figure of the unfeeling spectator, which the missionary Arthur Smith, in his influential 1894 text *Chinese Characteristics,*

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[118] Liu Zhichang, "Dianying jiaoyu chubu shishi fa," 20.
[119] Guo Youshou, "Zhongguo jiaoyu dianying xiehui chengli shi," *Zhongguo jiaoyu dianying nianjian 1934*, 247.
[120] See Haiyan Lee, *Revolution of the Heart*: *A Genealogy of Love in China, 1900-1950* (Stanford: Stanford University Press, 2007), 222.

described as exemplary of the unchristian fault in Chinese national character.[121] In the writings of nationalist intellectuals, Lee Shows, the same motifs of the unsympathetic Chinese became a key site for negotiating the structures of recognition and non-recognition internal to national identity formation. The dilemma was staged brilliantly in the well-known scene that Lu Xun describes in his "Preface" to *Call to Arms,* where he, a medical student in Japan, encountered a sudden moment of awakening:

> I do not know what advanced methods are now used to teach microbiology, but at that time lanternslides were used to show the microbes; and if the lecture ended early, the instructor might show slides of natural scenery or news to fill up the time.
>
> This was during the Russo-Japanese war, so there were many war films, and I had to join in clapping and cheering in the lecture hall along with the other students. One day, I unexpectedly saw on the slide many Chinese whom I had not seen for a long time, one of them bound and rest were standing around him. They were strong fellows but appeared completely apathetic. According to the commentary, the one with his hands bound was a spy working for the Russians, who was to have his head cut off as a public example [*shizhong* 示众], while the Chinese beside him had come to enjoy the spectacle."[122]

Studying medicine in the Japanese city of Sendai with aspirations to save his country with physical strengthening, Lu Xun reported being transformed by the realization that "the people of a weak and backward country, however strong and healthy they may be,

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[121] Lee, 235.
[122] Lu Xun, "'Preface' to *Call to Arms,*" trans. Yang Xianyi and Gladys Yang, in *Modern Chinese Literary Thought: Writings on Literature, 1893-1945,* ed. Kirk Denton (Stanford: Stanford University Press, 1996), 239-40.

can only serve as material to be made examples of (*shizhong de cailiao* 示众的材料), or to witness such futile spectacles; and it was not necessarily deplorable that many of them died of illness."[123] This oft-referenced moment of recognition, which the author cites as being the impetus for his turn from medicine to literature, was indeed the recognition of non-recognition, where the "absence of a circuit of sympathy between the spectators and victims" portrayed in the slide projection doubles back on the spectator of the picture, who in turn recognizes a bond with those who appear incapable of recognizing it for themselves. In Rey Chow's words, what was at stake in the Tokyo classroom, and in what she calls ethnic spectatorship more generally, was "not only a matter of watching 'China' being represented on the screen [but] more precisely, watching oneself—as a film, as a spectacle, as something always already watched."[124] Within this ocular game of seeing, being seen, and seeing oneself being seen, "sympathy" appeared not as a spontaneous or natural feeling but one suffused with tortured ambivalence.[125]

The move from the Sendai classroom where Lu Xun recognized the non-recognition in the face of his Chinese compatriots to the refitted lecture hall in Zhenjiang, where instructors screened films about bacteria, industries, and exotic lands such as *Hawaii* and *Alaska* (to cite two Eastman titles available on the NEFDO catalogue) remains a leap, if precisely because the latter transports the former's game of self-recognition back into the context of the classroom lesson. Whereas "war films" were shown after the lecture in brief moments of leisure time—hence comprising, to paraphrase Friedrich Kittler, a "misuse of university equipment"—the *raison d'être* of the

[123] Lu Xun, 239-40.
[124] Rey Chow, *Primitive Passions: Visuality, Sexuality, Ethnography, and Contemporary Chinese Cinema* (New York: Columbia University Press, 1995), 9.
[125] Lee, 235.

lanternslide projector in the microbiology classroom was to support the spoken voice while inculcating students in the epistemological habits of medical visualization.[126] Rey Chow's observation that the awakening in Lu Xun story comprised a reaction formation to the disorienting shock of technological media—"direct, cruel, and *crude* power of the film medium itself"—evokes a myth of primitive spectatorship that is complicated by the fact that the slide projector was already a normalized part of classroom teaching, preparing its beholder for trained movements between caption, photograph, and positive knowledge.[127] As Elizabeth Wiatr argues in the case of the U.S. classroom, the use of visual aids, from stereopticons to educational films, participated in a rigorous perceptual training that involved less seeing as such as the practice of forging coherence and intelligibility out of fragmented images and words.[128] To visualize was, paradoxically, "to see what was not present in an image," that is, to transform the image into a medium for synthetic knowledge.[129] Medicine, which already depended on a precise training of the gaze, welcomed visualization technologies as a pedagogical supplement, particularly as epidemiology became increasingly concerned with causes of disease invisible to the human eye.[130] As Scott Curtis argues in his study on medical observation and cinematic spectatorship in the German context, however, visual technologies remained equivocal as

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[126] For Kittler, entertainment radio was possible only as "misuse of army equipment," with soldiers in WWI derailing the military communications functions of their trench radio sets. See Kittler, *Gramophone, Film, Typewriter,* trans. Geoffery Winthrop Young and Michael Wutz (Stanford CA: Stanford University Press, 1999), 128.
[127] Chow, 8.
[128] Elizabeth Wiatr, "Seeing American: Visual Education and the Making of Modern Observers, 1900-1935" (Doctoral Dissertation, UC Irvine, 2003), 17.
[129] Elizabeth Wiatr, "Between Word, Image and Machine: Visual Education and Films of Industrial Process," *Historical Journal of Film, Radio and Television* 22.3 (2002), 334.
[130] For a discussion of cinema and medical visualization see Scott Curtis, *The Shape of Spectatorship: Art, Science, and Early Cinema in Germany* (New York: Columbia University Press, 2015), chapter 2.

tools of medical perception contingent on the degree to which their images were subject to the researcher's control.[131] While lauding the use of motion pictures in experiments, the German medical community was highly suspicious of commercial movies, an irony that could be understood only by grasping the difference between observation—an active state of contemplating a picture for the features of positive knowledge—and spectatorship—diagnosed as a "passive, weak-willed self-abandonment to the flow of images."[132] That the professor of microbiology at Sendai University switched from lecture slides to "war films" within the same class period, however, demonstrates the degree to which both proper observation and improper spectatorship bled into each other. Whereas scholars such as Rey Chow and Yomi Braester fault Lu Xun for reducing the image to its captions, such critiques miss what was essential in the encounter, namely the *error* in which the circuitry between words and images that defines one form of perception—the scientific and the objective—goes awry, opening up questions that in it have no proper place.[133] The young Lu Xun, in the midst of being trained to visualize microscopic organisms by means of captions, thus encountered a slide where words no longer explained images but entangled the viewer in an affective meshwork of shame, sympathy, and identification. The traumatic—and creative—kernel of the event was thus less raw visuality (which cannot be named without become cooked in language), but the

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[131] Curtis, ebook, https://books.google.com/books/about/The_Shape_of_Spectatorship.html (Accessed 30 May, 2017).
[132] Curtis, ebook.
[133] It is no surprise that Lu Xun, who once failed an anatomy class for refusing to correctly place a blood vessel in an anatomical drawing out of artistic license, eventually found the name of this error to be literature, a question to be explored elsewhere. Lydia Liu, "Life as Form: How Biomimesis Encountered Buddhism in Lu Xun," *Journal of Asian Studies* 68.1 (2009), 21-54.

unfastening of words from their anchoring in images, and their redistribution within an expanded network of metonymical and emotive intensities.

While much more remains to be said about how Lu Xun transformed the play of words and images into a literary oeuvre, containing its own indeterminacies and traps, here it is sufficient to place the problem of sympathy at the threshold between education and entertainment, proper observation and improper spectatorship, the visual aid and the "war film."[134] As affect, *tongqing* was unruly yet containable within nation-state pedagogy, and as such it could name the *topos* where mass-produced imagery commanded attention at the margins of its explanatory discourse. In her study of Republican-era media culture, Weihong Bao seizes on this meaning of *tongqing* by reading it as a vernacular media concept taken up to describe a spectator caught between multiple interfaces. Discussing the late-Qing reformer Kang Youwei's sympathetic reaction to a lanternslide depicting Bismarck burning the city of Sedan alongside the playwright Hong Shen's promulgation of sympathy as essential to persuasive acting, Bao defines "sympathy" as a state of "positive receptivity, a mode of perception and relationality that connects one to the world to achieve a physical transformation from one

[134] While recognizing the individuals involved as Chinese on his own, Lu Xun reads the contours of the situation from the captions, which tell him that the bound man was to be beheaded "as a public example" (*shizhong*). In Lu Xun's discourse, the "public example"—perhaps one of the oldest forms of visual instruction—marks not only the bound man, who is convicted of sedition, but also his spectators as well. The Chinese, interchangeable as either the "material" (*cailiao*) or "spectators" (*kanke*) of such public examples, appear both impervious to the execution's intended lesson and incapable of sympathizing with its victim. Lu Xun would later write that the Chinese could never be subjects in a tragedy in which "something of value is destroyed," only the objects in a comedy where "things of no value are eviscerated." Whereas the Chinese exchange student's classmates could continue clapping and cheering at the image, reveling in their own patriotic identifications while sneering at the absurdity of humanity reduced to such extremes, Lu Xun himself was ensnared in the very orbit of abjection he himself decried. Lu Xun, "Beiju he xiju," **FULL CITE**

state of the body to another."[135] As opposed to the ocular game of recognition that always assumes a distinction between seer and what is seen, sympathy as affect depends less on the content of technologized representation as its capacity to transform the body into a continuation of the media link, where the very distinctions between subject and representation, media channels and their reception, become porous. If Lu Xun's example suggests anything, however, it is that the breakdown of the codings that distinguishes between subject and object, body and cognition, does not open up to affective immediacy conceived as limitless and universal but implicates its bearer in a tortured knot of "ugly feelings."[136]

Sympathy, in other words, posed a *problem,* where the utopianism of unrestricted feeling inexorably ran up against the limits of language and community, a problem that in the Zhenjiang lecture hall was registered by cinema's equivocal status in the mass education project. Serving as both as a referent to shore up empty words and as a conduit for the uncertain encounter between spectators ("instructees") and moving pictures, educational film played out the unstated tension between the *tong* 同 (common) and *qing* 情(sentiment) of *tongqing* as vicissitudes of education and distraction, flanked by the undesirable extremes of the "low amusements" and "empty words." While aiming to arrest the downward spiral of mass taste inherent to the commercial model, instructors at the Zhenjiang center nonetheless recognized the necessity of entertaining their instructees, who were by no means a captive audience of children dedicated to learning but "drop

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[135] Bao, 103; Moreover, *Tongqing* was closely connected to the idea of *datong*, a utopian society in which all differences were effaced described by the great Qing dynasty reformer Kang Youwei. See Kang Youwei, *Datong shu* (Beijing: Renmin chubanshe, 2010).
[136] I am loosely referencing Sianne Ngai's *Ugly Feelings* (Cambridge MA: Harvard University Press, 2005).

outs" (*shixue* 失学)—as they were called—making use of their leisure time to enlighten themselves. In the next two sections, I will unpack the particularities of the balancing act that mass educators took upon themselves by reading the Center's film programs and teaching guides.

Film Sourcing

In May of 1935, the members of the Zhenjiang mass education center film committee traveled to the city of Hangzhou in order to attend the fourth meeting of the National Educational Cinematographic Society, which was being held in the Zhejiang Provincial Library.[137] Sensing an opportunity to make a show of the Center's recent work, the committee members arrived in Hangzhou with projector, magic lantern, and amplifier in hand, proceeding to tour the city's many educational institutions. The committee also printed samples of its research publications, which included the *Educational Film Research Anthology*, an extensive collection of guides, research reports, and film reviews.[138] Liu Zhichang and his intern Jiang Shecun subsequently authored "Practical Methods for the Educational Film Lecture-Screening," published in *Mass Education Information,* describing the intricacies of the Center's mobile demonstration. [139] After having previewed ten films ordered from the Nationwide Educational Film Distribution Office (NEFDO), the team selected four silent titles from Eastman Kodak, *Cotton Growing, Cotton Goods, How Teeth Grow,* and *Care of the*

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[137] Liu Zhichang and Jiang shecun, "Shiji de jiaoyu dianying jiangying fa," *Minzhong jiaoyu tongxun* 5.3 (1935), 1.
[138] Liu and Jiang, "Shiji de," 1.
[139] Liu and Jiang, "Shiji de," 1.

Teeth, along with several magic lanternslides, gramophone recordings, a locally produced newsreel, and Charlie Chaplin's *The Fireman* (1916).[140] A typical program showed two of the educational titles at a time (a "health" series and a "production" series), which were interspersed with political ovation, music, and slapstick comedy. For example:

> (1) Opening music: gramophone recording of *Soldiers Marching in the Snow,* sung by Li Minghui; (2) Collective Singing of the Guomindang Anthem; (3) Salute to the flag and the hanging photo of Sun Yat-sen; (4) Reading of the deceased prime minister's words and those of Jiangsu governor Chen Guofu; (5) Reading of announcements; (6) A newsreel produced by the Jiangsu Bureau of Education; (7) Gramophone recording of *Song of the New Life Movement,* sung by the Shanghai Middle School Choir; (8) *Cotton Growing*; (9) Gramophone recording of *Song of China's Youth,* sung by Dan Bin; (10) *Cotton Goods*; (11) *Song of Thrift,* sung by Chen Yuba; (12) First reel of *The Fireman* (Chaplin, 1916); (13) *The Cowgirl* sung by Xia Peizhen; (14) Second reel of *The Fireman*; (15) Collective singing of *March of the Grenadiers.*[141]

Clocking at an average of one and a half hours, the "lecture screenings" were intermedial variety shows, which nonetheless betrayed a specific balance between entertainment, education, and political salutation. The program can only be understood against the background of media sourcing, namely, the archive of available films and gramophone records from which the lecture team curated the multi-media experience. The film prints were acquired from NEFDO, which had by 1934 accumulated a sizable collection of 174 LUCE and Eastman Classroom titles as well as 115 slapstick comedies by Charlie

[140] Liu and Jiang, "Shiji de," 2.
[141] Liu and Jiang, "Shiji de," 4.

Chaplin, Harold Lloyd, and others, fitted with Chinese intertitles "to ensure the films were easily understood by audiences, to promulgate the Three People's Principles, to cultivate patriotic thinking, to incite national consciousness, and to inculcate scientific knowledge."[142] The educational titles were, in turn, made available free of charge for any educational institution, provided that it did not ask more than 10 copper coins for admission (around the price of a ticket at a third run theater).[143]

The Center had curated its current screening repertoire of four films by ordering ten titles from NEFDO, six of which it had felt to be inappropriate. A key part of preparation work for educational screenings, according to "Practical Methods," was previewing and assessing the value of the films, since "foreign educational films are often a difficult fit for our context and needs."[144] Previewing films before screening them was, of course, recommended best practice for anyone making use of instructional media, yet in the Chinese case, dependence on internationally produced titles, often designed solely for the domestic contexts of the producing countries, made it a necessity since the educator could make no assumptions about the nature and direction of the content. Complaints about foreign titles ranged from the difficulty of the content to derailed effect. According to Liu and Jiang, for example, the film *Magnetic Effects of Electricity* appeared to be "specialized for a school classroom and difficult to understand for middle or primary school students, much less for average people (*minzhong* 民众) with no scientific understanding."[145] *Care of the Teeth* (1931), on the other hand, as Sun Mingjing

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[142] "Quanguo jiaoyu dianying tuiguang chu jian ze," 12.
[143] "Quanguo jiaoyu dianying tuiguang chu jian ze," 11.
[144] Liu and Jiang, "Shiji de," 2.
[145] Liu Zhichang and Jiang Shecun, "Jiaoxue yingpian bianzhi ju li," *Zhonghua jiaoyu jie* 24.5 (1936), 59.

observes, often misfired with audiences, soliciting the question "Oh, look at that foreign girl, why does she put [a] stick in her mouth?" rather than accomplishing its hygienic lesson.[146] Moreover, since detailed descriptions and reviews of the films—an essential feature of non-theatrical film distribution—were rarely available in Chinese, the Center had to resort to trial and error methods. In ordering from NEFDO, center staff confronted a catalog of 174 films, listed with titles, acquisition numbers, number of reels, length in feet, whether the film had sound, and whether it had been titled in Chinese.[147] Beyond the catalog proper, a separate list divided the films up into twenty-four loosely overlapping categories, each with several subcategories (table 1-1). Some categories were left completely empty, while only 69 of the 174 titles in the catalog were even categorized, demonstrating that the compilers had at some point given up faced with the overwhelming heterogeneity of the material.

Agriculture	Music, Arts, Architecture	Chemistry	Patriotism and Civics	Home Economics	Economics
Education	Popular Science	Geography (by continent)	Government	History	Geology and Meteorology
Industry and Mechanics	Natural Science	Biology and Hygiene	Exercise and Sports	Scenery	Sociology
Travel and Transport	War – Navy, Army, and Air Force	Miscellaneous			

Table 1-1: Categories of Educational Films, NEFDO

The guides produced by the Center sought to relieve others of the painstaking trial and error process of ordering and previewing by offering them in depth descriptions of

[146] Swen Ming-ching, "The Fifth Start," *Educational Screen* (October 1947), 431.
[147] "Quanguo jiaoyu dianying tuiguang chu yingpian leimu yilan biao," *Fujian jiaoyu zhoukan* 183 (1934), 39-42.

films and how they fit into lesson plans. By transforming the overwhelming title list found in the NEFDO catalog into pedagogical goals and procedures, the Center sought to render educational cinema concrete, yet in the process they touched upon the indeterminacy at the heart of instructional film practice. As Liu and Jiang wrote in a 1936 piece, "up to now practitioners of educational cinema have yet to achieve a concrete awareness of the educational film. They have put all of their attentions on the work of projection, as if making sure that the image is projected clearly in front of audiences is the limit of their responsibilities."[148] Such "reckless misuse" (*wangqu zhi tu* 妄取施之途) sapped motion pictures of their educational value by detaching them from concrete instructional goals, allowing their meaning to float into distraction and entertainment. In such situations, the lecture hall became little more than a commercial theatre, where the film screening comprised an amusing interlude and the lecturer's "empty words." Preparation was key in order to anticipate not only the content of the films, but also their rhythm and their synergy with other media such as magic lanternslides and gramophone recordings. In turn, the lecturer's job was to translate the material from the film into an "extremely plain vernacular" (*qian ming de baihua* 浅明的白话). The "Preliminary Guide" encouraged lecturers to write down all intertitles during previewing in order to prepare their explanations. They were to proceed to rehearse their lectures with a mind to (1) using the national language (*guoyu* 国语, e.g. mandarin); (2) speaking with proper pronunciation and pitch, "neither too coarse or too delicate"; and (3) keeping up with the projected film.[149]

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[148] Liu and Jiang, "Jiaoxue yingpian," 59.
[149] Liu, "Preliminary Guide," 32-3.

The logic of preparation was inscribed in the teaching plan, which served as an essential interface between an unruly cinema and the aims of the educators. "If there is no teaching plan, even if your equipment is pristine, your [theater] management on point, you will not get much of an educational result," proclaimed Liu.[150] Published teaching plans thus became (and should be read as) a site where the loss of control specific to cinema—its propensity for movement, its intimidating existence as a numbered catalog object, and the indefiniteness of its audiences—met the designs of the educational institution. As a transcript of the conflict between educators and the "sympathy" they sought to harness, the Center's printed guides turned the struggle with contingency into legible text, which could be circulated among practitioners, critiqued, and improved. Indeed, in each of their guides, Liu and Jiang requested guidance (*zhishi* 指示) and critique (*gong ping* 公评) from their readers.[151] Read through the guides, the educational film appeared not to be a unidirectional communication link, with a clear sender and receiver, but a bidirectional if asymmetrical information system. Film became an instrument for teaching only insofar as it also taught its users, attuning them to the intersection of technology, editing rhythms, storage depots, supply links, site architectures, and the heterogeneous group of instructees in attendance. Only by mastering the guide could the instructor assume the role of knowledgeable authority, however this process required more than mastering the subject matter and the technology but navigating the supersaturated field in which they were actualized.

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[150] Liu, "Preliminary Guide," 32.
[151] Liu and Jiang, "Shiji jiaoyu dianying jiangying fa," 2.

Consider the screening of *Cotton Growing*, categorized as a "production education film," during the Hangzhou program. The film, which according to the English-language Eastman catalog "shows various steps in preparing the ground—stages in the growth of cotton plants—methods for fighting boll weevil—harvesting, ginning, bagging and transporting cotton," was to be flanked with two gramophone led sing-alongs of songs with patriotic themes, followed by a second film *Cotton Goods.*[152] While *Cotton Growing* is no longer extant, synopses, other Eastman Kodak industrial titles, and the shot-by-shot teaching guide published by the Zhenjiang center, allow us to reconstruct it significantly. The description in the Eastman catalog, which categorizes the film as "Geography," touches upon the details that would have been key for a teacher to assess its fit into a lesson plan: planting, harvesting, and pests. However, the film also contained other lessons, especially pertaining to the geography of cotton production and its importance for the Southern states of the U.S. A study guide distributed by Eastman Kodak contained an assignment asking students to locate cotton-growing areas around the world on a map.[153] Other assignments focused on questions pertaining to the crop's labor intensiveness, concluding with a ten-sentence essay on "how the cotton crop affects the prosperity of the South."[154]

In her essay on Eastman Classroom films, Elizabeth Wiatr shows how the chronotope of "industrial process" comprised an essential node in visualization practices in U.S. progressive education. Answering Emile Durkheim's anxiety that with globalized

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[152] Eastman Kodak Teaching Division, *Eastman Classroom Films A Descriptive List Include Latest Releases* (Rochester: Eastman Kodak, 1930), 7.
[153] Ben D. Wood and Frank N. Freeman, *Motion Pictures in the Classroom: An Experiment to Measure the Value of Motion Pictures as Supplementary Aids in Regular Classroom Instruction* (Boston: Houghton Mifflin, 1929), 248
[154] Wood and Freeman, 249.

markets "the producer can no longer embrace the market in a glance, nor even in thought," the text-image relationships and editing practices in industrial education films rendered the abstraction of the world market visually concrete, organizing the multiplicitous activity of production into a "developmental story of the flow of materials and labor," where raw materials from various parts of the world are transformed into finished products, and distributed in global networks of exchange.[155] In contrast to turn of the century industrial actualities, which took panoramic perspectives on factory labor shown to be a series of repetitive tasks, U.S. educational films of the 1920s and 1930s developed a highly abstract language that, on the one hand, integrated feature film continuity techniques, and on the other, capitalized on the gap between image and explanatory title. Students were encouraged to "see what was not present in an image" precisely insofar as titles directed their attention to specific elements either on or off screen, forming an impression of diegetic progression irreducible the individual shots. Yet, unlike narrative features, silent educational films did not create a continuous diegesis that sutured spectators into a self-unfolding narrative universe. Rather, as Wiatr describes, they normalized disjuncture, where "glaring incongruities between image and text passed as comprehensible narratives, aided by the visceral appeal of increasingly aestheticized images."[156] In *Beet and Cane Sugar* (Eastman, 1930), for example, extremely brief intertitles such as "Harvesting Beets" tie together long series of images showing beets being picked, transported to the factory, and carried along conveyer belts before ending in a shot that "shows a worker at the foot of tremendous piles of beets, raking them into a flume that emerges at the base of a pile and flows to the bottom of the

[155] Wiatr, "Between Word, Image, and Machine," 334.
[156] Wiatr, "Between Word, Image, and Machine," 349.

frame."[157] Whereas "moving the mountains of beets from the darkness of the piles, where they are potential energy or surplus capital, into the light of the water would appear to be a Sisyphean task," the film does not dwell in the temporality of the labor, immediately cutting to the next step in the process, leaving the actual connection between each step abstract. The content of such abstract progressions are subsequently reinforced by post-screening activities such as intertextual cross-referencing and written exercises, such that footage of specific production sites and procedures become exemplars of the industry *as such* "naturalizing exploitation of the land, production, and development, and American hegemony."[158]

According to the shot-by-shot description in the guide published by the Zhenjiang Center, *Cotton Growing* opens with a map of the American cotton belt, from North Carolina to New Mexico. [159] It proceeds to depict the process of planting, fumigating, picking, processing and shipping cotton, a linear trajectory interspersed with momentary diversions, including stop motion photography of the boll weevil gestation cycle (which the titles claim to be a counterfactual to fumigation) and shots of black laborers entertaining themselves with music.[160] As with *Beets and Cane Sugar, Cotton Growing* features brief titles that name long series of shots edited in a semi-continuity style (e.g. establishing shot of cotton pickers leading to close ups of their hands), with the overall effect of abstracting the particular characteristics of technology, landscape, and racialized labor depicted in the images into a universal sense of "Cotton Growing" as such.

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[157] Wiatr, "Between Word, Image, and Machine," 348.
[158] Wiatr, "Between Word, Image and Machine," 337.
[159] Liu and Jiang, "Shiji jiaoyu dianying jiangying fa," 17.
[160] Liu and Jiang, "Shiji jiaoyu dianying jiangying fa," 17.

In the Zhenjiang teaching plan, however, such universals immediately become comparative in light of the lecture script and supplementary materials. "Now that we know America is one of the world's cotton producing regions, we also should understand that our own country is a cotton producer," reads the lecture script, after having described the pictured map. "Along the Yellow River, there are Hebei, Shandong, Shanxi, Henan, Shansi provinces, while on the Yangtze there are Jiangsu, Zhejiang, Anhui, Jiangxi, Hubei, Hunan provinces. The cotton producing area is sizable."[161] Next to the images of laborers playing a "five stringed instrument," the lecture script observes, "The black farm workers often have leisure time, so they enjoy playing music and dancing in order to counterbalance their hard labor, but our farmers only have toil and no entertainment. Their lives are abnormally tedious and hence we need to promote sensible entertainment during time off."[162]

While supplementary lectures, readings, and maps were par for course in educational film practices worldwide, here, such additions did not substantiate the image, but stood contrapuntal to it. The "instructee" attending the screening encountered a disjuncture between words and images that did more than open a space for visualization, or it opened one so vast that the image could no longer support the speech that was supposed to ground it. For this reason, the Zhenjiang Center lecturer found it necessary to both stop the film and use his own visual aids and sound technologies: "Outside of explicating the film as it is progressing, it is necessary to divide the film into segments and add general commentary. In order to supplement the image with external knowledge, it is necessary to occasionally stop the film and insert either textual or illustrated magic

[161] Liu and Jiang, "Shiji jiaoyu dianying jiangyng fa," 17.
[162] Liu and Jiang, "Shiji de jiaoyu dianying jiangying fa," 18.

lantern slides, as well as make use of the microphone and sound amplifier."[163] For the purpose of the cotton film, Liu and Jiang prepared a series of magic lanternslides depicting Chinese individuals planting, picking, threshing, and fluffing the cotton, as well as explaining the methods involved in this process. Moreover, since boll weevil was not a Chinese pest, further slides introduced audiences to pests that were native to China.[164]

The start and stop rhythm of the film screening and the addition of supplementary media and explanation had the propensity to break any diegetic immersion that the film was capable of accomplishing, dispersing the audience's attention across multiple media, the lecturer, and multiple production geographies. Moreover, the asymmetries between the moving images depicting the American situation and the still slides depicting the Chinese mirrored that of the developmental disparities the film's images brought to light. The printed synopsis registered this disparity explicitly: "There are a lot of uses for cotton. Most of our [*zamen* 咋们] clothing problems require cotton for their solution. Our country is also an important world producer of cotton, but we still cannot catch up with America, which produces fifty percent of the world's cotton."[165] Bringing up the sequences in the film that depicted aerial fumigation, the apologetic tone reached a crescendo: "The most interesting method of fumigating is with an airplane. [We] see this and realize [America's] considerable mechanical might. China, naturally, cannot achieve this in the foreseeable future."[166]

Enacting a particular structure of feeling that Gloria Davies conceptualizes as "worrying about China," *Cotton Growing* appears to its interlocutors as an occasion to

[163] Liu and Jiang, "Shiji de jiaoyu dianying jiangying fa," 17.
[164] Liu and Jiang, "Shiji de jiaoyu dianying jiangying fa," 17.
[165] Liu Zhichang and Jiang shecun, "Shiji de jiaoyu dianying jiangying fa," 4.
[166] Liu Zhichang and Jiang Shecun, "Shiji de jiaoyu dianying jiangying fa," 4.

voice anxieties about China's place within the world.[167] The rhetoric of failure organizes the affective appeal the lecturer's discourse, transforming feelings of inferiority before the film's implicit celebration of American power into a logic of injury that Jing Tsu has showed to be essential to the Chinese nationalist project.[168] In between the lanternslide, the lecturer's voice speaking in strange mixtures of academic diction and colloquial speech, and the stop and start film projection, the circulation of "sympathy" takes on contours that would appear to mirror Lu Xun's thought process in the Sendai classroom, where the national feeling was posited as the lack clinging on the margins of globally circulated war footage. That the lecturer voiced this lack with an amplifier and filled it with magic lanternslides transposed the "worry" from the interiority of literary expression onto the rough edges between unsutured media. In such a context, Wiatr's conclusions about Eastman industrial process films are less contradicted as compounded. What the lecturer exposed in the offscreen space were not the visualizable contours of an abstract homogenous "industrial process," but rather an affective meshwork of developmental anxiety. It was in these margins that the lecturer's voice circulated, equivocally shuttling between screen media and glancing off the audience's unreliable ear. Hooked up to the Center's three-use amplification system, the speaker neither took on the presence of the charismatic travel lecturer, who transformed the image into a virtuosic self-demonstration (as in the case of the American Burton Holmes), nor was he an auxiliary locus of cinematic enunciation, like the Japanese *Benshi* who "forfeited his own subjectivity and

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[167] Gloria Davies, *Worrying about China: The Language of Chinese Critical Inquiry* (Cambridge MA: Harvard University Press, 2007).
[168] Jing Tsu, *Failure, Nationalism and Literature: The Making of Modern Chinese Identity, 1895-1937* (Stanford CA: Stanford University Press, 2005).

became identified with the subjectivity of the film."[169] At the edges of enunciation emerged an affective register properly designated as "resonance" (*gongming* 共鸣), a vernacular media concept that Weihong Bao has shown to be coextensive with "sympathy." In Japanese literary theorist Kuriyagawa Hakuson's widely translated reflections on Bergson, *gongming* is used to describe the vibratory links between interior experience and matter.[170] Situating the term in the context of early discussions of wireless and television in the Shanghai print public sphere, Bao demonstrates how *gongming* conceptualized the body of the wireless listener and the television spectator as a continuation of the media link. The early television spectator who adjusts the speed of the rotor in order to stabilize the image became resonant precisely insofar as the activity brought the modulations of the picture into harmonic relations with the human eye.[171] Such assemblages of bodies and media solicit imaginings of the total media link, where the contagious effects of the vibratory contamination undo ocular-centric questions of voyeurism and representation, yet remain entangled in knots of word-image-sound.

The three-use amplification system—alternatively called the "three-use teaching machine" (*sanyong jiaoxue ji* 三用教学机)—designed in-house to function as a microphone, gramophone speaker, and radio receiver exemplified a technology of resonance, which sought to transform three distinct data streams into a shared auditory experience. Audiences participated by singing along with gramophone recordings or, alternatively, attempting to follow the lyrics which were projected on screen via magic

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[169] Quoted in Marcus Nornes, *Cinema Babel: Translating Global Cinema* (Minneapolis: University of Minnesota Press, 2007), 116-7.
[170] Bao, 66-7.
[171] Bao, 67. I further discuss this concept in relation to the architectural design of the Center's screening space in Chapter 3.

lantern.[172] In the Hangzhou program, the gramophone recordings played between reels both attenuated the rough edges of the projected image and pushed them toward new meanings. The Center, which was in possession of a sizable collection of recordings ranging from Nie Er's patriotic *Song of the Big Road* (film music to the Lianhua film *The Big Road*) to songs by famous actress-songstresses such as Li Minghui and Zhou Xuan.[173] Significantly, it was Li Minghui, the daughter and frequent vocalist of the "yellow music" composer Li Jinhui, who sang *Soldiers Marching in the Snow* for the Hangzhou program's opening song, a patriotic tune that nonetheless drew its appeal from the actor-songstress's commercial star status and distinctive nasal voice.[174] For its Cotton-focused program, the Center recommended the use of five songs in its collection (only four of which were used in the actual program): *The Song of the New Life Movement, Song of China's Youth, Song of Thrift, The Peasant Cowgirl,* and *The Soul of Aviation* (a song for the Chinese air force).[175] As the titles alone show, the music was curated in order to activate metonymic registers available but inert in the films themselves, where images of American aerial fumigation could drum up enthusiasm for the nascent Chinese air force, and witnessing the labor of cotton production could inculcate audiences in frugality and the appreciation of pastoral beauty. Needless to say, such messages resonated more with the urban educated instructors themselves than their

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[172] Liu and Jiang, "Shiji de jiaoyu dianying jiangying fa," 2.
[173] Liu, "Preliminary Guide," 39-41.
[174] For a discussion of Li Jinhui and the Bright Moon singing troupe (of which his daughter was a part), see Andrew Jones, *Yellow Music: Media Culture and Colonial Modernity in the Chinese Jazz Age* (Durham: Duke University Press, 2001).
[175] Their Chinese titles are as follows: 新生会运动歌，中国青年歌，节俭歌，村姑牧牛歌，飞行魂

instructees, but such was the educational process, which sought to massage the frictions between heterogeneous social segments.

Domestic Production

The case for domestic educational film production, advanced since the founding of the NECS but not carried out until 1934, was situated within such concerns and voiced as a matter of the incompatibility between foreign educational films and the national environment. Despite the desire to teach instructees about the world, it was nation that stood in the room as the void of enunciation and identification. Writing of the Eastman film *Alaska,* Liu and Jiang admitted that "from the perspective of world geographical knowledge, it is true that our citizens should see it," nonetheless "the majority of them are not even familiar with the contours of their own nation's mountains and valleys" and thus "a film about another country's national situation will of course not pique their interest (*xingqu* 兴趣)."[176] Echoing this viewpoint in a 1937 radio lecture, Jinling University filmmaker Sun Mingjing observed that a film about George Washington lost much of its value transplanted from the United States to China. Rather than recognize the greatness of Washington's achievements, Chinese audiences chattered about "Oh foreigners are like this! Ah, foreigners are like that!"[177] Faced with the choice between worldly thinking (*shijie sixiang* 世界思想) and national thinking (*guojia sixiang* 国家思想), Sun decisively sides with the national, arguing that essential were films that would "acquaint [the audience] with the beauty and grandeur of China's capital, the cleanliness

[176] Liu Zhichang, "Jiaoxue dianying bianzhi ju lie," 59-10.
[177] Sun Mingjing, "Jiaoyu dianying de shezhi," *Kexue jiaoyu* 4.2 (1937), 17.

and serenity of Qingdao, the abundance of coal in Shanxi, or the rapid development of highways, rail lines, and all other construction projects […] enough to incite our citizens' love for their native land, to increase their desire to build the nation."[178]

Outside Shanghai commercial cinema, which on its own accord sought to make films of educational significance, the first thread of domestic educational film production began in coproduction arrangements between the Jiangsu Education Bureau and the Mingxing Studio. Under the new Jiangsu governor Chen Guofu, who had been appointed in 1933, the Bureau created a film production group, circulating in 1934 a call for educational film scripts. The result was *Water Hygiene,* scripted by governor himself, a film that has been taken up in later historiography to be the "first" Chinese educational film.[179] Co-productions between the NECS, provincial governments, and commercial studios continued up until the war, however, the production of strictly educational films was limited, and the execution idiosyncratic. One of the few extant films from such collaborations is a title called *Exercise in China* (*Zhongguo tiyu* 中国体育 1937), commissioned by the NECS and shot by Mingxing. The film featured GMD party stalwart Chu Minyi demonstrating a form of exercise he had invented mixing Tai Chi with calisthenics.[180] Finally produced in 1937, *Exercise in China* had been in the works since 1933, when Chu, in a text called *Using Film to Facilitate the Realization of Three People's Principles and to Assist in Implementing Various Undertakings*, had lauded cinema for its capacity to efficiently teach physical exercise, particularly his brand of Tai

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[178] Sun, "Jiaoyu dianying zhi shezhi," 17.
[179] Zhao Huikang and Jia Leilei, *Zhongguo kejiao dianying shi* (Beijing: Zhongguo dianying chubanshe, 2005), 20.
[180] The film can be seen at the following address: https://www.youtube.com/watch?v=atU54odzsxM

Chi-Calisthenics which "can be done by anyone whether rich or poor," requiring no specialized equipment, clothing or accessories, while conserving much needed energy (unlike soccer, an energy intensive "aristocratic" sport).[181] Chu's voice narrates over long takes of him performing Tai Chi movements, sometimes with close-ups for emphasis. Recently founded state-run studios such as the Central Film Studio also took part in educational film activity, most notably producing *Springtime for Farmers* (*Nongren zhi chun* 农人之春, 1935), which won second prize at the Agricultural Film Festival in Brussels.[182]

The main thread of Chinese educational film production, however, came from collaborative arrangements between the NECS and Jinling University, funded by proceeds from educational film screenings in Nanjing commercial theatres. Cognizant of the failure of the Shanghai-branch's effort to charge students educational film fees, the main branch of the Society in Nanjing experimented with another funding structure, this time modeled off Italian precedents. Utilizing personal connections with the managers of Nanjing's ten commercial cinemas, the Society managed to oblige the theaters to show Eastman and League educational titles prior to featured programs, paid for by a progressive "educational film fee" added to ticket prices.[183] Revenues from the supplementary screening arrangement, which came into effect in 1935, went to the NECS, which for the first time had sufficient income to fund production. Jinling University, one of the thirteen Protestant colleges run by the U.S.-based Associated

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[181] Chu Minyi, *Liyong dianying zucheng san min zhuyi zhi xianshi ji buzhu ge zhong shiye jinxing* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1933), 5-6.
[182] Chen Zhi, "Woguo shoubu zai guoji huo zhengshi jiang de yingpian shiwei 'nongren zhi chun,'," *Dianying yishu* 3 (2004), 109.
[183] Zhongguo jiaoyu dianying xiehui, *Zhongguo jiaoyu dianying xiehui di si jie nianhua zhuankan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935), 9.

Board of Christian Higher Education in Asia, was the unlikely choice of such coproduction arrangements. Unaffiliated with the central government, Jinling was nonetheless in possession of well-maintained production facilities and trained practitioners.[184] Between 1935 and 1948, Jinling University Department of Educational Cinematography (later renamed the Audiovisual Department) produced roughly one hundred films on an array of educational topics, including industry, geography, natural science, agriculture, national defense, and civic training. The majority of these films were made through commissioning arrangements with the NECS, although by 1936, Jinling had begun to produce films on direct commission from government ministries.[185] The two main genres of Jinling productions were "industrial education films" (*gongye changshi pian* 工业常识片) and the "geographic scenery films" (*dili fengjing pian* 地理风景片), categories that I discuss at length in the subsequent chapters.

By 1936, Chinese productions had achieved wide circulation within the Jiangsu mass education circuit. Judging from the April-June screening schedule at the Zhenjiang Center, films such as *Water Hygiene, Our Capital* (*Shoudu* 首都)*, Scenery at Westlake* (*Xihu fengjing* 西湖风景)*, Silk* (*Can si* 蚕丝)*, Porcelain* (*Tao ci* 陶瓷) and *Soap* (*Feizao* 肥皂) were screened with regular frequency, however Eastman titles still took up the majority of the calendar.[186] Due to the shortage of domestic productions of consistent quality, the lingering suspicion that such films failed to solicit the interest of their audiences, and the lobbying efforts of Shanghai studio heads, members of the NECS

[184] Shi Xingqing, *Minguo jiaoyu dianying yanjiu, yi Sun Mingjing wei ge an* (Beijing: Zhongguo chuanmei daxue, 2014), 59-60.
[185] Shi Xingqing, 203-211.
[186] Zhao Hongxiang, n.p.

floated an initiative to shrink selected feature films with educational significance to 16mm for screening in the mass education circuit.[187] In 1935, the Jiangsu Bureau of Education took up this advice, curating a series of eight films that had previously won NECS commendation, a list that included *The Golden Years,* discussed above, as well as *Playthings* (*Xiao wanyi* 小玩意 Dir. Sun Yu, 1933), *Iron Bird* (*Tie niao* 铁鸟 Dir. Yuan Congmei, 1934), *National Customs* (*Guofeng* 国风 Dir. Luo Mingyou and Zhu Shilin, 1935), *All Face the National Crisis* (*Gong fu guo nan* 共赴国难 Dir. Cai Chusheng et. al. 1932), and *Our Nation's Survival* (*Minzu shengcun* 民族生存 Dir. Tian Han, 1933).[188] The films, all produced by either Lianhua and Yihua, were recut to six reels—slightly over an hour in runtime—in order to fit Mass Education Center's multi-media program and to eliminate "romantic elements and excessively gloomy portrayals."[189] Cut down and purified of entertainment and gloomy leftist endings (of the type that Zheng Boqi had advocated), the films were then integrated within two-hour programs, run with gramophone accompaniment and magic lantern lectures similar to the Eastman Kodak films.[190] The study questions appended to the end of *The Golden Years* teaching plan offer a glimpse at the Center's pedagogical aims:

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[187] Zhongguo jiaoyu dianying xiehui, *Zhongguo jiaoyu dianying xiehui huiwu baogao, di si nian hui* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935).
[188] A full list of the source titles includes Lianhua films *Playthings* (Dir. Sun Yu 1933), *National Customs* (Dir. Luo Mingyou and Zhu Shilin 1935), *All Face the National Crisis* (Dir. Cai Chusheng et. al. 1932), and *Iron Bird* (Dir. Yuan Congmei 1934); the Yihua films *National Survival* (Dir. Tian Han 1933), and *Golden Age* (Dir. Bu Wancang 1934); and *Inspecting the Police and Coast Guard* by the Jiangsu Bureau of Civil Affairs, and *Inspecting Child Soldiers* by the Jiangsu Education Bureau.
[189] Liu Zhichang, "Huangjin shidai yingpian jiaoxue fangan," *Mingzhong jiaoyu tongxun* 6.3 (1936), 54.
[190] Liu Zhichang, "Huangjin shidai yingpian jiaoxue fangan," 54.

> What is a People's School? What are the benefits of eating green vegetables and tofu? What kind of attitude should a student have? What qualities should determine whether a man and a woman are a good pair? How does one find happiness?[191]

Focusing on the film's literacy theme, the guide—which like the guide for *Cotton Growing* included a shot by shot teaching script—added attention to elements of hygienic and moral training. Cut out of the original film was a scene where Changchun makes an advance on Xiaomei in a dark alley, as well as the scandalous fates of the film's two negative role models—the "gloomy depictions" and "romantic elements." Now at a manageable length, the film was then segmented into four acts. The first act, depicting "Two Different Kinds of School Life," compared the well-to-do Yanong/Taoli and the impoverished Changchun/Xiaomei. At its close, the teaching guide inserted a projected slide encouraging students, no matter rich or poor, to "concentrate their energies on study" rather than "scattering valuable energy on useless things, especially if you are a student at an ordinary peoples' school."[192] The second act, on "Improper Love Between Males and Females," concluded with a still slide that chided the audience to choose their mate based on "erudition, physical health, and morally uprightness," not simply to "admire their money or their beauty."[193] The next two sections, "everything depends on one's own hard work" and "struggle is the mother of all success," were followed with

[191] Liu, "Huangjin shidai," 59.
[192] Liu, "Huangjin shidai," 53.
[193] Liu, "Huangjin shidai," 55.

slides promoting similar didactic messages, such as a lesson on the virtues of "determination" and "struggle."[194]

Whereas in its Shanghai version, *The Golden Years* was tied together precisely by its romantic subplot, which offered narrative housing—however structurally unsound—for the protagonist couple's awakening and metamorphosis, the Jiangsu version cut out the narrative threads, rehousing sequences within the event of the educational screening itself. Here, however, the film's *chuancha* style was an asset rather than a liability, since it produced sequences with meanings indeterminate enough to allow for editorial reframing. In the poignant allegorical moment of the film where Yanong rejects Xiaomei on account of her missing finger, the magic lanternslide's message that one should choose one's mate based on "erudition, physical health, and morally uprightness" resonated cruelly against the intention of the Tian Han script. In the latter, the moment of physical mutilation was a reminder of the character's working class origins, where in the former, it stood as a mark against her social hygiene. Moreover, in this context, the percentage balance between "education" and "entertainment" found in the Cai Chusheng interview became not a matter of narrative integrity but the literal practices of cutting and rearranging celluloid, based on a numerical calculation of educational efficacy.

Despite having a supply of films capable of garnering the "interest" (*xingqu*) of the mass education center audience, the Center's team was ultimately unsatisfied with the shortened features, which remained mired in "maudlin and flesh numbing" images and "pessimistic and incitatory" messages.[195] For Liu and his team, there remained a veritable shortage of films that "positively guide the masses, train them, and educate them in civics

[194] Liu, "Huanjin shidai," 57.
[195] "Guoguang," *Dian hua jiao yu* 2 (1937), 21.

and production."[196] Besides for calling for specialized educational productions, which were still few and far between because the "[educational organs] in most places constantly feel they have neither the finances nor the talent to begin producing their own films", Liu and his film team took it upon themselves to re-edit the existing Shanghai titles into a four-reel compilation film called *National Pride* (*Guoguang* 国光), which was completed in January of 1936 on a budget of four hundred and sixty-two yuan, containing the "best parts" of six fiction films and two locally-produced newsreels. [197] After being sent to Eastman Kodak Shanghai for reprinting, the film began screening on the Zhenjiang Center's mobile projection circuit on 8 February, 1936, reaching an audience of four hundred and eighty thousand, according to one estimate from January of 1937.[198] After its successful run, orders for the film came in from the Zhejiang and Fujian bureaus of education as well as the third peoples' mass education district in Shandong.[199]

The narrative programmatically prescribes a response to "national crisis," beginning with scenes of war and carnage, followed by a mass meeting and prescriptive sequences instructing children to play with nationally produced toys, teachers to establish popular literacy schools, primary and middle schools to pay attention to military training, girls schools to teach first aid, for youth to join aviation and military schools, and lastly, for everyday individuals to engage in physical and mental training.[200] A comparison of

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[196] "Guoguang," 21.
[197] Zhao Hongxian, "Yi nian lai jiangsu jiaoyu dianying shiye zhi gaikuang," *Zhongguo jiaoyu dianying xiehui tekan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1936), 69.
[198] Liu Zhichang, "Guo guang yingpian jiaoxue fangan," *Minzhong jiaoyu tongxun* 6.2 (1936), 30; Estimate from "Guoguang," 21.
[199] Zhao Hongxian, "Ben guan shishi dianhua jiaoyu zhi gaishu," *Minzhong jiaoyu tongxun* 7.1 (1937), 2.
[200] "Guoguang," 21.

Figure 1-1 Stills from *Playthings* (1933)

the teaching guide's description of a re-edited sequence from Sun Yu's *Playthings,* one of the few extant source films, with the original filmic text, reveals the degree to the Shanghai originals and the recuts were often at cross purposes. In the Sun Yu film, the actress Ruan Lingyu plays Sister Ye, a village toy manufacturer whose ingenious inventions are being edged out by mass-produced foreign product. She sends her former lover, the well-to-do Mr. Yuan, to study toy manufacture in Germany, and upon returning he opens an industrial toy factory that, unbeknownst to him, also participates in pushing Sister Ye's artisanal production out of business. Sun Yu's depiction of competing forms of artisanal and industrial toy manufacture artfully registers the equivocal dialectic by which mass production both fulfilled and inverted the desire originally invested in the movement for national products (discussed in depth in chapter 2). Whereas Sister Ye's

toy workshop is depicted as a whimsical habitus where toys are integrated with play, Mr. Yuan's factory floor, shot on site at the Great China Toy Factory, is offered in a modernist montage sequence, where dissolves through the assembly line process conclude with shots of plastic products –headless dolls, buckets of ping pong balls, tanks and machine guns–on display in a fashion that metonymically links the assemblage of industrial manufacture to the dismemberment of war (figure 1-1). The two modes of production meet in a climactic missed encounter when Sister Ye's child—kidnapped and adopted as an orphan unbeknownst by Mr. Yuan's new wife—encounters his mother on the streets of Shanghai to buy the toys she is peddling. Sister Ye, reduced to destitution by the fallout of recent Sino-Japanese conflict, does not recognize her child but refuses to take his money, telling him that he—dressed in a boy scouts costume—is the future of China. The cruel dialectic by which, in Andrew Jones' words, "even the totem of a better future to whom [Sister Ye] sacrifices—and that she herself produced—belongs not to her, but to the national bourgeoisie," is thus played out in an exchange that is also a non-exchange, which sets the stage for a final explosion of pathos where the toymaker mistakes firecrackers for gunfire and launches into an impassioned speech.[201]

Recut into *National Pride,* the same sequences described above are reframed in the following manner:

Intertitle: The real work of saving our nation from extinction starts with the education of our children. The best method for this is through children's toys.

Shot: Old toy store filled with clay and paper miniatures, horses, etc.

Shot: Mother with her child coming to buy toys.

[201] Andrew Jones, *Developmental Fairy Tales : Evolutionary Thinking and Modern Chinese Culture* (Cambridge, Mass: Harvard University Press, 2011), 145.

Intertitle: These kinds of toys are uninteresting. They are also dirty. Not only do they have no education use, they are physically and mentally harmful for children to play with.

Shot: Modern toy factory. Workers making toys.

Shot: A display of different kinds of toys — planes, cannons, tanks.

Intertitle: Now these are the toys that are needed for the education of our children

Shot: The educational toys in action.

Intertitle: When children play with these toys, they come to understand the techniques of war; [the toys] help cultivate a martial spirit.[202]

In the Zhenjiang Center's version of the toy footage, Sun Yu's subtle treatment of the class contradiction underneath the popular slogan "Toys for National Salvation" (*wanju jiu guo* 玩具救国) is flattened by intertitles that subject the film's images to clear forms of valuation. Whereas the original film translates its ambivalence concerning what is lost in the drive toward industrialization into dialectical pathos, expressed on the face of one of silent cinema's most talented actresses, *National Pride*'s effort to turn such footage into clear prescriptions of conduct not only did violence to the original but also opened an inevitable chasm between word and image. With the film no longer extant, it will be impossible to tell the degree to which Sun Yu's images subverted the meaning of their titles. It is clear, however, that the slippage between words and images, the fact that the words barely touched images, comprised a problem for the educators involved. In a 1937 essay, Liu and Jiang complained that the Chinese feature films "have points in which they are incompatible with our educational aims." "They are entirely for profit," the

[202] Liu Zhichang, "Guoguang yingpian jiaoxue fangan," 33.

authors continue "and hence in their subject-selection, they emphasize the negative things in order to attract audiences; in their story and their inserts (*chuancha*), they tend toward so-called the maudlin and sensuous so to seduce and intoxicate!"[203] Thus for the Zhenjiang educators, both negative description—what the Shanghai leftists called "exposure" (*baolu* 暴露)—and the Hollywood traditions of sensuality and romance resonated as effects of commercial enterprise under the broad definition, against which they tended increasingly toward "narrow definition" films. Based on the American model of instructional cinema, the films were to (1) have clear central study subjects, (2) be at a length of at most of 800 feet (approximately 24 minutes), and (3) be the product of cooperation between the relevant work units (*danwei* 单位).[204] In the next three chapters, I discuss the degree to which the Jinling University films fit into this model. Here, I will conclude on a reading of the Shanghai-Jiangsu coproduction *Water Hygiene* as a text that puts all the tensions I have so far described into play.

Mise en Abyme

In 1934, while *Water Hygiene* was still in production at Mingxing, Chen Guofu published his script in a special issue of *Mass Education Information*. Later, in 1935, Liu Zhichang and Jiang Shecun, members of the Zhenjiang center's cinematographic education committee, republished the script as a teaching guide, with a shot by shot breakdown, discussion questions, recommendations for gramophone accompaniments,

[203] Liu and Jiang, "Jiaoxue yingpian binzhi juli," 60.
[204] Liu and Jiang, "Jiaoxue yingpian binzhi juli," 60.

and the text for magic lantern supplements, to be projected at the end of every reel.[205] A reduced version of the teaching guide was later published in a 1936 edition of *Teaching and Learning*, an influential journal printed in the Nanjing by the Zhengzhong press.[206] Held up as a model for educational film screenwriting, the shooting script was published again in 1947, forming an appendix to Ministry of Education official Zhao Guangtao's *Electrified Education.*[207] Although like many other educational films, the print is lost, the overlapping scripts comprise handling interfaces that enable close reading.

Running at four reels, *Water Hygiene* proceeds by means of a telescoping didactic narrative. The young primary school teacher Li Zhichao arrives at the fictional New River Township, only to discover the villagers' alarming water management practices. Li uses the classroom to spearhead a hygiene movement, at first raising his students' consciousness about the relationship between bacteria and water quality, then mobilizing them to advocacy and popular outreach. Using a variety of persuasive methods, from visually aided lectures to children's theater, the movement succeeds in persuading the villagers to both reform their habits and dig a modern well. Central to the film is the problem of visualization: the ability for villagers to "see" microbes as the cause of disease in the water, and their ability to grasp the seriousness of the epidemic by means of audiovisual aids such as statistical charts and children's theatre. The practices of observation that enable the visualization of germs, however, reveal themselves to be at

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[205] Published first in *Minzhong jiaoyu tongxun* (1935); a revised version published in *Jiao yu xue* (1936)
[206] Chen Guofu, Liu Zhichang and Jiang Shecun, "Yinshui weisheng," *Jiao yu xue* 1.8 (1936), 125-137.
[207] Zhao Guangtao, *Dianhua jiaoyu gailun* (Shanghai: Shangwu yinshu guan, 1947).

cross-purposes with the texture of cinematic continuity. The opening sequence, depicting the results of the village's alarming water practices, underscores this fact:

> **Title***:* "Disease breaks in New River Township!" **Shot**: A foul river flowing. **Shot**: Residents along the river straining rice and washing vegetables; others are washing their chamber pots and emptying their trash. **Shot**: Passersby urinating at the side of the well. **Shot**: The sick are being carried back and forth on the street. The doctor busies caring for the sick. The pharmacy is busy selling medicine. Its boss beams with pleasure and addresses his customers: **Title**: "Everybody wait a moment, I really have my hands full!" **Shot**: The coffin shop is flourishing. Its boss hurries about around without pause. Cheerfully, he says: **Title**: We're already out of B grade coffins!"[208]

The sequence moves from the mixing of waste products with drinking water to "disease" and "death" as expressed by the booming pharmaceutical and the mortuary industry. The smiles on the faces of the doctor and mortician combined with their dialogue titles, however, serve to fictionalize continuity without revealing microscopic system of causality that supposedly underwrites it. In their commentary, Liu and Jiang recommend that the lecturer describe final shots of the opening sequence in a "jocular tone," evidence that the Mingxing filmmakers had opted for visual codes reminiscent of comedy and slapstick.[209] It is only upon the arrival of Li Zhichao that the unknowing spectator is offered the ability to see beyond the entertaining surface of the procession of images on screen. "A youth stands at the riverside watching the unhygienic goings on," reads the

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[208] Chen et. al (1936), 125.
[209] Chen Guofu, Liu Zhichang and Jiang Shecun, "Yinshui weisheng jiaoxue fangan," *Minzhong jiaoyu tongxun* 5.9 (1935), 52.

script's description of the subsequent sequence, "facing the river [Li] mumbles to himself…who knows how many germs and microorganisms there must be in this water?"[210] The young teacher sees what presumably others cannot see in the situation at hand; he is entrusted with the task of educating the villagers, those inside the film as well as those viewing the film, in what cannot be seen, yet to "see" involves precisely to not see what is in front of oneself but to visualize at the interstices between word and image.

The film's protagonist proceeds to edify the villagers, and hence the spectator, in two ways. Li Zhichao first distributes test tubes to his students and asks them to collect samples from their drinking water. After haggling with their parents, who are variously suspicious of where the vials came from, the children bring the specimens to school and view them through a microscope. The specimens are visualized in three separate microscopic "close-ups," which are catalogued with spoken titles: typhoid, cholera, and dysentery. While the children collect samples from water sources contaminated with multiple bacterial and protozoan agents, the film shows them as a series of neatly catalogued images. The demands of pedagogical effectiveness—teaching spectators the shapes of various microscopic contagions—outweigh the need for plausible continuity: what appears to technologically assisted vision is heterogeneous to the world of everyday life, which is then again different from the structure of pedagogical address. Significantly, in Chen's script, the ability to access the scientific regime of microscopic vision is conditioned on a set of behavioral norms. As Li asks his students where their water came from "some of the students stood, some raised their hands, not in any order. [Title: Li

[210] Chen Guofu (1936), 126.

Zhichao says]: 'Quiet down! You must maintain order! Those who pull water from the river, please raise your hands."[211]

At Li Zhichao's behest, the students take it upon themselves to educate their parents, who respond with varying degrees of understanding. A parent-teacher assembly is called, and the school principal Mr. Huang admonishes villagers with mortality statistics, visualized in the form of a chart. The appeal is then followed by a play put on by the students. In the play, the three different bacterial infectants responsible for water-borne diseases dance inside a well; a student comes, drinks cold water, and falls dead. Other students come out from behind the curtain and boil their water, and the germs die. After the performance, Li Zhichao asks a student why her parents are not present. She states that her father is sick; the teacher asks her whether he drank any unboiled water, which he had.

Proceeding through several layers of evidence—microscope, theater, statistical chart, and sickness—the film circles around the indeterminacy of its object lessons and the educator's ability to make the masses visualize, that is, see things for their invisible abstractions as opposed to their surfaces. While the fictional diegesis ensures the success of such endeavors, the need to double the health campaign's diegetic success with its actual success produces a dissonance. In mediating this dissonance, the primary school offers a clever motif by which the educator translates his specialized vision into a movement, based in the classroom as "a dedicated educational environment, where the scope and objects of instruction are relatively fixed and convenient."[212] In the classroom, the ability to become an observer is explicitly linked to the discipline of social scientific

[211] Chen Guofu (1936), 2.
[212] Zong Liangdong, 31.

categories, as the students to are admonished to raise their hands only as the instructor calls out their water source. In the movement from the classroom to the broader society, however, the status of such visualization become muddied, since without the chain of custody leading from the water source to the microscope, there is no reason for one to believe that pictures of strange organisms on a slide projector have any relation to life as it is lived. Yet the problem of trained perception spirals outwards even further, since statistical charts and children's theatre only communicate their intended message if one can coordinate verbal admonishments with their visual interfaces. Yet the problem later narratively depicted is already present in the splitting of the diegetic primary school students and the "instructees" in attendance at the Mass Education Center. Whereas the former are able to "see" what is in the slides, the latter only sees pictures linked together by a continuity editing premised on an altogether different genre of vision, namely immersion in the space of the story. Here, the doubling of specialized perception in cinematic form does not reproduce the viewer as specialist; at most it prepares the viewer for the intervention of technicians and experts, to accept their trained judgments and actions.

As Ruth Rogaski shows, hygiene (*weisheng* 卫生, or *esei* in Japanese) was itself coextensive with the problem of visualization in the Chinese modern, where "visual arrangements merged with sanitary arrangements to become vehicles for expressing national identity and national pride."[213] Focusing her study on the treaty port of Tianjin, Rogaski traces the play of urban planning discourse across British, Japanese, and Chinese

[213] Ruth Rogaski, *Hygenic Modernity: Meanings of Health and Disease in Treaty-Port China* (Berkeley: University of California Press, 2004), 194.

parts of the city, showing how *weisheng*, a Japanese return loan word, came to embody a wide-ranging administrative principle and affective sensibility governing the seen and unseen. Promoted as part of Japan's increasingly imperialist project in East Asia, *esei/weisheng* acceded, in Rogaski's words, to an "organizing principle in governance, a site of contestation over the relationship between the people and the state, and ultimately an indicator of the power of Japan vis-à-vis the rest of Asia."[214] In Tianjin's urban planning discourses, *weisheng* was the object of a complex negotiation between international concessions and the Chinese parts of the city. In the British settlement, sewer infrastructure secured the division between a "linear, smooth and ordered world" by pushing reminders of contamination and filth—the human carriers of water and night soil—out of the streets.[215] Meanwhile, in Chinese and Japanese portions of the city, *weisheng* remained a goal marked by intense ambivalence, implicated within discourses of China's civilizational inadequacy and the nationalist desire for self-strengthening. As Rogaski observes, *weisheng* in East Asia involved far more than specifically medical and public health considerations, encompassing questions of national sovereignty, scientific knowledge, bodily cleanliness, and the fitness of the race.[216]

In the fictional New River Township, as with the Chinese parts of the Tianjin, it was precisely insofar as technical administration —the linear, smooth, ordered world—could not be sustained as an autonomous sphere that hygiene became a vexed site of moral self-government and displays of order. Rural health programs during the nationalist reconstruction encountered conditions very close to those depicted in the film, with

[214] Rogaski, 137.
[215] Rogaski, 193.
[216] Rogaski, 1.

unprotected latrines and fertilizer storage close to wells and water sources; the result, according to one study, was a three percent adult and twenty-five percent infant mortality rate due to preventable infections such as typhoid, cholera, dysentery, malaria, hookworm, schistosomiasis, kala-azar, smallpox, diphtheria, and tuberculosis.[217] Insofar as nearly all public health infrastructure was concentrated in urban areas, rural health involved a focus on preventative habits over modern medical intervention.

Later to be recognized as an important advocate of traditional Chinese medicine over its Western counterpart, Chen Guofu had complex opinions on the relationship between modern medical epistemology and older preventative notions of *weisheng* (which, before its return translation into Chinese, was connected to the Daoist concept of "guarding life"). In his 1942 *The Way of Weisheng*, Chen cited the paucity of professional health care workers and the exorbitant cost of modern medicine as reason to educate the public to "avoid falling sick in the first place."[218] Awareness campaigns and individual vigilance *in the place* of public health infrastructure transformed what was originally the space of expert intervention into an individual and collective moral burden.

The moral burden of hygiene, however, is as hard to bear as it is to teach, a fact recognized by the film's stacking of visual evidence in a dance around the invisible microbial agent. *Water Hygiene*'s didactic intent is addressed to the audience only by being first addressed to the characters in the film, and around this play within a play one may only indirectly grasp the essential message, and perhaps only after one has already

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[217] Ka Che-yip, "Health and Nationalist Reconstruction: Rural Health in Nationalist China, 1928-1937," *Modern Asian Studies* 26.2 (1992), 395-415

[218] Chen Guofu, *Weisheng zhi dao* quoted in Sean Xiang-lin Lei, ""Moral Community of Weisheng: Contesting Hygiene in Republican China," *East Asian Science, Technology and Society: An International Journal* 3 (2009), 489.

learned how to recognize it. Chen Guofu recognized the difficulties involved in hammering the message home, since in his original script, he takes the performance at the parent-teacher assembly a step further into the realm of a more ancient object lesson. According to his vision of the film, the village families that adhere to Li Zhichao's hygienic protocols survive, while those who reject it die, thus enacting on the stage of life and death an irrefutable proof, where scientific visualization becomes contiguous with the sovereign "admonishment" (*shizhong*) Lu Xun had witnessed being carried out on the Chinese spy.[219] The Mingxing filmmakers, apparently finding the narrative turn too grisly, kept the admonishments on the stage, yet for the film team at the Zhenjiang center this was not enough. In the teaching guide, the film is peppered with stop cues and magic lanternslides for review of each of its individual points. As per the teaching guide, the five slides prefacing the film read:

> (1) Today's lecture-screening (*jiangying* 讲映) tells a story about the need for everyone to pay attention to hygiene when handling drinking water. (2) Every person should know: water is an essential element of life. No one can survive without it. (3) Why does drinking water need to be pure? What are the dangers of drinking impure water? This film will inform you! (4) What do we do with unclean water sources? This film will inform you on a multitude of methods for addressing the issue at its source and in its effects. (5) The reason why we don't drink impure water is because in it there are extremely small poisonous insects

[219] Chen Guofu, "Yinshui weisheng jiaoyu dianying juben," *Minzhong jiaoyu tongxun* 3.10 (1934), 157-61.

(germs). If you consume them you will get sick. Are there really germs in unclean water? Watch the film, and you'll find out.[220]

Phrases such as "this film will inform you" "watch the film, and you'll find out" parlay the rhetoric of film advertisements into the pedagogical aid. The message that one is supposed to discover in the film is already given in advance, for which the film is to provide the affective charge and referent. However, like the telescoping modes of address one finds within the film, the words on the surface of the still slide dance around a mise-en-abyme that symbolizes the impossible communicative act. The idea that cinema could communicate both a message and the embodied means of decoding it remains lost in a vortex of differential media technologies, stacked in order to provide assurance.

For the Zhenjiang Center's instructors, such problems, which I show in the ensuing chapters to be structural to education cinematography as a spatial and temporal practice, consistently revealed themselves as evidence of the inadequacies of commercial studios and their cinematic idioms. In his review of *Water Hygiene,* published in the 1934 *Educational Film Research Anthology,* Jiang Shecun accused Mingxing of introducing "commercial taste" to Chen Guofu's script by filming "imprecise" dramatized gestures and shortening the explanatory intertitles. "Titles," Jiang noted, "cannot be reduced at will, since one must use them to make up for insufficiencies in the film's mode of expression."[221] Jiang's discussion of the film's cinematography merits quoting at length:

What is important for the cinematography of educational film is not the same as in dramatic films. When a dramatic narrative encounters moments that are unclear or

[220] Chen et. al. (1935), 51-2.
[221] Jiang Shecun, "Ping Yinshui weisheng," *Jiaoyu dianying yanjiuji,* ed. Jiangsu Zhenjiang shengli minzhong jiaoyu guan dianying jiaoyu weiyuan hui (Zhenjiang: Jiangsu Zhenjiang shengli minzhong jiaoyu guan, 1935), 89.

> difficult to film, the audience does not lose interest because there is still dramatic continuity. Thus, the film does not lose its intrinsic value. This is not the case when shooting an educational film. Every single gesture on the screen and every character in the intertitles must be immaculate. Instructional films are directly educational implements. As with a classroom instructor, any imprecision or mistake would be passed on to the student. One should certainly not shoot an educational film with the dramatic film in mind. In *Water Hygiene*, the actors' movement and the shots themselves have their unclear and fuzzy moments. The most important sequences are somewhat fuzzy, when they should be very clear. The scene of the well water experiment—a very important sequence—is indeed muddled. In particular, it is not sufficiently beautiful. On this point, educational filmmakers must improve.[222]

The discourse on the difference between dramatic and educational cinematography in the passage crystallizes the contradictions limned in this chapter on the dispersals that define educational cinematography in both its broad and narrow definitions. Jiang's dissatisfaction with the sequence's "unclear and fuzzy moments" and its shortened intertitles evidences the frictions between the order of scientific demonstration and the order of dramatic immersion. For this reason, Jiang augured, the film director should have been chosen from experts, and moreover "for this type of experimental procedure and its explanation, someone who specializes in microscopy should be invited as an instructor in order to ensure that it is correctly presented."[223] The following chapters will

[222] Jiang Shecun, "Ping Yinshui weisheng," 88
[223] Jiang Shecun, 89.

explore the various efforts of the educational film movement to wrest cinema from its basis in the commercial model.

Chapter 2 Sericulture Volatility: Educational Display and Industrial Process

"The masses do not wish to be 'instructed'. They can absorb knowledge only if it is accompanied by the slight shock that nails down inwardly what has been experienced. Their education is a series of catastrophes that befall them at fairs, in darkened tents, where anatomical discoveries enter their very bones, or in the circus ring, where the sight of their first lion is inseparable from the image of the lion tamer putting his fist between its jaws. It takes genius to extract such traumatic energy, the small, specific *frissions,* from things in this way." - Walter Benjamin[1]

Porcelain (*Taoci* 陶瓷,Sun Mingjing, 1935), a one-reel film produced by the Jinling University Department of Educational Cinematography, depicts a modernized ceramics process, defined by flow charts, maps, mechanical crushers, and laboratory technicians. After opening on the familiar image of a craftsman shaping a porcelain pot, the film then shifts to a different register, intercutting a flow chart identifying each stage of the machine-intensive ceramics process beginning with the mining of raw materials. Shots of men digging in clay pits are interspersed with shots of a map plotting the locations of prominent Chinese mining centers. The spectator is then taken into an interior space, where laborers in black shirts and engineers in white coats work mechanical crushers and filtering machines. Near the end of the reel, as workers are shown applying two different forms of glaze, a pie chart appears, breaking down the product's list of ingredients. The finished ceramics are put into the oven, and the film finishes on a shot of the flow chart with the fountain pen pointing to the final step.

[1] Walter Benjamin, "Food Fair: Epilogue to the Berlin Food Exhibition," in *Walter Benjamin: Selected Writings vol 2 part 1, 1927-1930,* eds. Michael Jennings et. al. (Cambridge MA: Harvard University Press, 1999), 136

With its maps and diagrammatic illustrations, *Porcelain* thus defines "porcelain" as an object with unforeseen compositional and spatiotemporal qualities. More than a commodity, with use value and a price representative of exchange value, Chinese ceramics are presented as *process,* involving the transformation of raw materials into finished products, which, in turn, becomes legible not only as a temporal sequence but as a map of distributed production sites. In this chronotopic *mélange* of diagrams and machines, the human face is conspicuously absent. The workers and technicians turn their backs to the camera as they attend to the dials and knobs of heavy machinery. The artisans who sculpt and glaze the pottery look down at their hands. The picture offered to the spectator is not of a heroic worker, with whom one can identify, but the process of production itself, which guides the flow of perception. It is the eye of the flow chart, which, directed by the fountain pen, points out where one is. As a management motif, the flow chart transforms production—a sprawling concatenation of materials, machines, and labor—into a linear process available at a glance. Whereas from the perspective of labor each step is a task repeated *ad infinitum,* from the perspective of management, it is a moment in a concatenated sequence that is available as a picture. As Marx understood it, from the perspective of workers brought together by capital into a massive productive assemblage, "the interconnection between their various labors confronts them, in the realm of ideas, as a plan drawn up by the capitalist, and, in practice, as his authority, as the powerful will of a being outside them, who subjects their activity to his purpose."[2] In such representations of work, the worker is capable of seeing—but by no means

[2] Karl Marx, *Capital Vol. 1,* trans. Ben Fowkes (New York: Penguin, 1976), 450

grasping—the contours of his subjection, which also appears as the inverted picture of his power as a collective creature.[3]

Emile Durkheim's anxiety, discussed in the previous chapter, that under conditions of the world market "the producer can no longer embrace the market in a glance, nor even in thought" acquires a particular kind of poignancy in this context.[4] As Elizabeth Wiatr argues, the cinematic depiction of industrial process subjected the dispersive networks of materials and labor involved in modern production to clear chronotopic progression. Presented not only to the eye of the manager—films of this sort were frequently shown at industrial fairs—but also directed at the public education sector in the U.S., such films normalized a certain way of "visualizing" industry as a temporal sequence, where raw materials were transformed into finished products. In the Eastman Kodak films, the picture of industry made the particular characteristics of production universal, naturalizing "the exploitation of the land, production, and development, and American hegemony."[5] Whereas in the previous chapter, I examined how Eastman industrial process films such as *Cotton Growing* were adapted for Chinese "instructees"

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[3] Marx's discussion is, after all, situated in his chapter on cooperation, which has been taken up in contemporary discussions of the general intellect. The argument, which I will not be able to develop here in detail, is that despite not being able to grasp their own totality as picture, the worker, insofar as she is linked to other workers both on the factory floor and across vast production networks, becomes part of an impersonal mass intellectuality, irreducible to the representation of it drawn up by the capitalist. One of the stakes of my investigation into visual culture, however, concerns the way in which representation nonetheless seems to offer equivocal interfaces for mass intellectuality. What does the worker, or the non-worker for that matter, see in the flow chart? The answer, as I will show, is not clear-cut, and indeed tends to cut against the presentist (and frankly ethnocentric) tendency in much of the discussion about the general intellect. For one version of the latter, see Paulo Virno, *A Grammar of the Multitude: For an Analysis of Contemporary Forms of Life* (Cambridge MA: Massachusetts Institute of Technology Press, 2004).

[4] Quoted in Elizabeth Wiatr, "Between Word, Image and Machine: Visual Education and Films of Industrial Process," *Historical Journal of Film, Radio and Television* 22.3 (2002), 334.

[5] Wiatr, "Between Word, Image and Machine," 337.

as anxious object lessons in China's backwardness, here I will address Chinese industrial cinema of the 1930s as a response to such equivocations. Chinese educational film practitioners called for domestic production as a way of easing the friction they experienced in exhibiting globally circulating educational films to Chinese audiences. Highlighting the degree to which the naturalized pictures of industrial process in Eastman Classroom titles were in fact not natural but marked with geopolitical asymmetries of industrial power, the film lecturers hoped that Chinese produced films would enable their students to reorient their industrial cartographies, inciting their "love for their native land…increase[ing] their desire to build the nation."[6]

In this chapter, I offer a close reading of two Chinese films on industrial process, both focusing on the country's floundering sericulture industry. As I argue, sericulture offers a special case of industrial cinema, which is also paradigmatic, since in it, the multiplicity of temporal registers in production is most apparent. A combination between agriculture and industry, sericulture lays hold of at least three different processes: (1) the life-cycle of the silkworm, a biological creature known for its dependency on humans, having evolved for two thousand years in conjunction with human cultivation; (2) the process of growing silkworms, a harrowing process with a large number of contingencies; and (3) the temporalities of spinning and manufacture, which link sericulture to the world market, and in turn place demands on the sericulture process itself, encouraging certain qualities in the produced silk such to best fit market demands as well the technology used in spinning. To this, one might add the sociological temporalities of village life, insofar as sericulture was, in the 1930s, primarily a seasonal

[6] Sun, "Jiaoyu dianying zhi shezhi," *Kexue jiaoyu* 4.2 (1937), 17.

preoccupation of small farmers.[7] As I argue in my close readings, the sericulture film must deal with all three (or four) of these temporal registers in order to subject them to narrative time (I bracket village life because, for the most part, industrial process films are able to successfully avoid the sociological field). Like the flow chart, which transforms multiplicity into a synchronic picture of temporal progression, educational cinema comprises an interface for the industrial processes it depicts, but, as I will argue, an equivocal one. Not only does film include movement and time as part of its representational repertoire, it also a production process in its own right, subject to the forces of the world market, which make themselves known in finances, technology, story subjects, and the circulation of cinematic techniques (as I have detailed in the last chapter). Thus cinema will be the fourth (or fifth) temporality that is involved in the reading of the sericulture process. Like other productive processes, however cinema too coordinates many disjunctive temporalities.

As Mary Ann Doane has argued elsewhere, the shift from early cinema's fragmented recordings of scenes to narrative cinema's integrated storytelling mirrored the rationalization of the work process in other areas, exemplified by practices such as Taylorist management and statistical modelling.[8] The "excess of the random, of chance in time" that characterized early cinema's aesthetic of attractions was met, in the ensuring years, with a standardizing and narrativizing impulse aimed at dispelling the challenge

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[7] For a full discussion of silk and sericulture in China, see Lillian Li, *China's Silk Trade: Traditional Industry in the Modern World, 1842-1937* (Cambridge MA: Harvard University Press, 1981). For a more specific discussion of how manufacture puts pressure on the microeconomics and gendered division of labor in the household, see Francesca Bray's pioneering study *Technology and Gender: Fabrics of Power in Late Imperial China* (Berkeley: University of California Press, 1997).

[8] Mary Ann Doane, *The Emergence of Cinematic Time: Modernity, Contingency, The Archive* (Cambridge MA: Harvard University Press, 2002).

posed by recorded time to epistemological certainty.[9] In my close readings of Chinese industrial process films, I argue that these procedures of narrativization—which are not singular but multiple—involve not only the reduction of temporal multiplicity to a linear tableau, but also complex production processes of their own: the syncing and desyncing of cinematic rhythms with those of humans and other technological processes. I also argue that industrial education films produced and exhibited under conditions of uneven development register the dissyncrhony between such rhythms prominently in their narrational textures, whereas the dominant cinema of Hollywood is able, for the most part, to suppress, or better, exploit the powers of excessive time.

To "read" an industrial sequence necessitates following the texture composed by the various strands of temporality that are involved both in the depicted production process and the latter's production as image. My approach to industrial films will thus take up much of what Walter Benjamin has argued in "The Author as Producer," namely by treating artistic forms not only as representations but also as specific modes of production.[10] I will add—and I expect Benjamin would agree—that each individual mode of production is not autonomous, but rather exists as part of an ensemble of productive activities that extends across the social texture. While Benjamin's text is prescriptive—he is arguing against those who think they can demonstrate solidarity with the working class by simply depicting them favourably in literature—my approach will be on the whole

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[9] Doane, 137.

[10] He is situating his argument in response to tendency fiction, which is of interest for the present constellation, but I will not be able to address these connections here. Walter Benjamin, "Author as Producer," trans. Edmund Jephcott in *Walter Benjamin: Selected Writings Vol. 2 Part 2,* eds. Michael Jennings et. al. (Cambridge MA: Harvard University Press, 1999), 768-782.

descriptive, insofar as I show how, given the specific qualities of cinema as a mode of production, the very effort to depict work complicates cinema's own work.

In 1932, the Chinese silk economy collapsed. As the military conflict that broke out in Shanghai in January spread to neighboring regions, silk processing factories in China's prosperous Jiangnan region closed, and the cocoon banks with them. This was the last straw for a faltering artisanal economy, already suffering from depressed global demand, foreign competition, widespread blight, and poor cultivation methods. It was in this context that the May Fourth literary luminary Mao Dun wrote *Spring Silkworms* (*Chun can* 春蚕)*,* a novella describing the plight of a silk producing family struggling to make ends meet. Later in October of 1933, the Star Motion Picture Company (Mingxing 明星) premiered a filmic version of the story, to much accolade among the intellectual class. The film featured sustained treatments of the sericultural process, which it depicted with unprecedentedly close attention. The film was a flop, however, running for a mere four days at the Strand Theater (Xinguang da xi yuan 新光大戏院), during which it was widely criticized for its monotony and lack of climax. Sympathetic critics nonetheless praised the effort. The film was, after all, the first attempt to adapt May Fourth fiction to the silver screen; it was moreover advertised as "the first shot of educational cinema" and the "steamroller for the national products film."[11]

1933 was national products year. Across town, the competing United Photoplay Service (Lianhua 联华) had just begun screening its own themed film, *Playthings* (*Xiao*

[11] "Chun can," *Shenbao dianying zhuankan* 8 Oct (1933).

Figure 2-1 Advertisement for Spring Silkworms. Source: *Shenbao* 8 Oct 1933.

wanyi 小玩意 Dir. Sun Yu, 1933), depicting the fate of an artisanal toymaker played by Ruan Lingyu. Earlier that year, Mingxing company elders, as part of their intention to take the company on a "progressive path," announced a series of films on China's major industries: silk, tea, coal, salt, etc..[12] After the flop of *Spring Silkworms,* Mingxing would continue to produce *Salt Tide* (*Yanchao* 盐潮, Dir. Xu Xinfu 1933) and *Sweetgrass Beauty* (*Xincao meiren* 心草美人, Dir. Chen Kengran, 1933), but, having learned its lesson, both films would push industrial process to the background of their human-

[12] Laikwan Pang, *Building A New China in Cinema: The Chinese Left-Wing Cinema Movement, 1932-1937* (Oxford: Rowman and Littlefield, 2002), 44.

centered melodramatic narratives.[13] As the critic Lu Si described, whereas *Spring Silkworms* was a "pure educational film," *Salt Tide* was a "relatively meaningful romance film."[14] The work of promoting national products would, however, be taken up elsewhere. In 1935, the National Educational Cinematographic Society of China, which spent 1933 popularizing the word "educational cinema," started funding educational co-productions with the Presbyterian University of Nanking (Jinling University). Over the course of the next decade, Jinling would produce over a hundred educational films of various genres, a large number of which dealt with industry and agriculture. There was indeed a film on tea, one on coal, two on salt, and one on silk. *Silk* (*Can si* 蚕丝, Dir. Pan Denghou, 1935) was thus shot in 1935, in the midst of state efforts at fixing the sericulture economy. Unlike *Spring Silkworms,* which depicted the artisanal industry, *Silk* was shot at the modernized Huaxin silk filature in Wuxi. Portraying a modernized scientific process for a non-paying audience of "instructees," it offered a fundamentally different aesthetic.

The motifs developed in the previous chapter—the relationship between image and speech, the unworkability of the aesthetic and hygienic whole, the broad and the narrow definitions—will return here to be articulated differently as problems of movement and time. Both *Spring Silkworms* and *Silk* confront the volatilities of the sericulture economy at the level of production and of market, and both internalize this volatility into their textures, offering themselves as models of perception for a vaguely defined spectator-student. It should be noted that the communication between

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[13] Pang, 44.
[14] Lu Si, "Ping Yanchao" (1934) in *Zhongguo wusheng dianying,* ed. Zhongguo dianying ziliao guan (Beijing: Zhongguo dianying chubanshe, 1996), 556

industrial/market temporalities and the temporalities of film have hardly anything to do with the superior intuitions the film *auteurs*. Rather they are symptoms of the syncing and de-syncings of modes of production, two distinct forms of film production, on the one hand, and two distinct processes of sericultural cultivation, on the other. For the spectator seeking masterful treatments, both films fail. In them, however, one finds rich textural fabrics that define the assemblages of industrial visibility. Under what conditions and for what purposes does an industrial-agricultural process become visible? What is the relationship between visibility and education? How do the explicit motives of industrial education mesh with the necessarily dispersive means of their cinematic presentation? Such questions link technology, industry, and state-building with the history of cinema, and the foregoing analysis shows how even the most instrumental of images cannot but avoid stirring the latter's archive of visual metonymy.

The analysis will, for the most part, glance over problems of narrative and spectatorial address in order to focus on the microtextures of how the films depict industrial process. The aim, thus, is not to assume a necessary difference between how a feature film and an educational film is to be read. I intend to be inductive, paying heed to depictions of process, then ascertaining whether the films contain differences in enunciative structure. The analysis of these two films as exemplars will then provide me with the methodological parameters with which to think Chinese industrial films as a genre. As a final note, since in order to follow this chapter's close reading, it will be necessary to cross-reference specific shots, I will be including two sets of figures: whereas I will include production stills and advertising material inside the text, my screen captures from the films themselves will be affixed to an appendix at the end of the

dissertation. The figures in the appendix will be labeled by Arabic numerals followed by lower-case alphabetical designations (e.g. 1a, 1b), while the figures in text will be labeled according to the general scheme with two numerals connected by a dash (e.g. figure 2-1, 2-2). Reversing the traditional order of presentation in a Nanjing movie house circa 1935, where an educational film would be screened before the feature presentation, I begin with *Spring Silkworms* and move toward the educational short. The reasons for this should become clear in the telling.

The Preliminaries

Spring Silkworms is a film that sits at the intersection between the commercial industry and the publicized imperatives of educational cinema, as well as a set of other forces within the Shanghai film world, such as the push and pull between leftist critics and their modernist detractors. As such, in addition to shedding light on the problems confronted in filming industrial process, it will also illuminate another dimension of the tension between "broad" and "narrow" definitions, which is why it will be important to situate the film in its critical reception. *Silkworms* was highly anticipated when it screened at the upscale Strand Theater on 8 October, 1933. Its director, Cheng Bugao, and screenwriter, Xia Yan, had recently completed *Torrents* (*Kuangliu* 狂流, 1932), a leftist "exposure film" that satirized the callousness of the rich during a major flood.[15] After the critical success of *Torrents,* Mingxing found *Silkworms* to be a next step in elevating the company's cultural cachet. In the same year, the Mingxing Company elder Zheng Zhengqiu authored a manifesto renouncing the company's previous profit-seeking

[15] Pang, 44-45.

ways and announcing that he was ready to take the "progressive path."[16] Mingxing was thus open to adapting the renowned writer Mao Dun's novella, which narrated the struggles of a peasant family as they enter into the silkworm season. The story was a simple one: after an excellent harvest, the family falls deeper into debt due to the macroeconomic decline of Chinese silk manufacture, brought about by an unnamed imperialism (the culprit was Japan, but "Japanese imperialism" was a banned phrase at the time). Despite their ultimate emphasis on great political economic issues, both the novella and the film are remarkable for the infinitesimal scale of their focus. Dispensing with the dramatic personification of social forces, both stay at the level of mundane description. Interpersonal conflicts are kept subdued while the focus is kept on the details of the process. Defending the film against a lukewarm critical reception, screenwriter Xia Yan observed that its subject was not fit for "melodrama" (a term he kept in English) but had rather to be presented as an unadorned "sketch" (*sumiao* 素描). Evoking a term from reportage fiction, he then emphasized the film's "educational component" and "documentary methods" (*jilu dianying de fangshi* "记录电影的" 的方式).[17]

It was perhaps such unprecedented aesthetic choices that caused the film's critics much dissatisfaction. Hovering between a documentary, an educational film, a May Fourth novella, and an entertainment feature, the film seemed not to satisfy anyone's expectations. Even sympathetic critics were wont to point out that the film felt

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[16] Zheng Zhengqiu, "Ruhe zou qianjin zhi lu" (1933), in *Bainian zhongguo dianying lilun wenxuan* vol 1 (Beijing: Wenhua yanjiu chuban she, 2001), 129.
[17] Cai Shusheng (Xia Yan) et. al, "Chun can zuotan hui" (1933), in *Sanshi niandai dianying pinlun wenxuan,* ed. Chen Bo (Beijing: Zhongguo dianying chubanshe, 1993), 255. Volume henceforth SSND. It is unclear whether Xia Yan is using *jilu dianying* to translate to the word "documentary," newly coined by Grierson, or whether he was in fact discussing the newsreel.

"monotonous" and "dissolute," lacking dramatic tension and climax. The left-wing critic Ling He, for example, cited the filmmakers' failure to appreciate the difference between cinema and the literary work. "The proponents of free literary description wish quite simply write the ordinary stories of ordinary people. It is difficult but necessary for film to pay the same attention to reality (*zhenshi* 真实); however it needs a climax."[18] Without making use of dramatic elements and some form of visual exaggeration, observed Ling He, the film's story ended up flat "without high points, and also without helping the audience understand how terrifying rural poverty is, or who the responsible parties are."[19] Other, less sympathetic reviewers, such as the modernist Liu Na'ou accused the film of using "the dance of ill-considered images to harass the viewer's thought processes"; without dramatic elements or a central theme it had failed to "turn the literary flight of written characters into a sensation-play composed in the singular language of concrete gestures."[20] As a result, he complained, "All we see is the *unremarkable* commonplace phenomenon of a business that is unable to make ends meet."[21] Answering the defense that the film should be judged by documentary standards, Liu rejoined that if this were true, there was too *little* attention to the production process; in any case, he added, the film's production sequences were barely educational, for they depicted an archaic mode of production, not befit for emulation.

Whether or not, as Laikwan Pang states, "many would agree that *Spring Silkworms* is a masterpiece from today's perspective," the film's flop in 1933 evinces the

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[18] He Lian et. al., "He ping chun can," *Shenbao* (9 Oct, 1933), 5.
[19] He Lian et. al., 5.
[20] Liu Na'ou, "Ping chuncan," *Mao Dun* 2.3 (1933), 120.
[21] Liu Na'ou, 121.

nature of the expectations that were put on it.[22] The reasons why the film failed with critics are the same reasons why it interests us. Floundering between established modes of depiction, *Silkworms* was not enough fiction, documentary, or educational film to be intelligible to its viewers; however, as such it all the better exhibits how each generic discourse conditioned its emergence. The Aristotelian theater aesthetics that insisted that each film should have a climax was confronted with a vague sense of an alternative film form: the "educational film," which the National Educational Cinematographic Society had worked to popularize as a viable model for the commercial film industry (see Ch. 1). The educational film thus became embedded within the existing rubric of leftist cinema, which used melodramatic elements to expose pressing issues in society. *Torrents* exemplified this mode of filmmaking, with enraging depictions of the idle rich peering on the consequences of a devastating flood from their balconies like they would a theatrical play or film.[23] Literal to the novella, however, *Silkworms* would not make use of these tried and true techniques of cinematic dramatization. Its creators drew, rather, on the "sketch" of reportage writing, which offered yet another model. For its literary practitioners, the "sketch" (either *sumiao* 素描 or *suxie* 速写—the latter was Mao Dun's preferred term) emphasized simplicity and speed; it was a response to the fast pace of modern society and its variety of quotidian objects and situations. "Life in a dramatically changing society makes writers, in addition to their creative work, unable to resist occasionally using sketches to critically record social phenomena occurring in every corner," states the writer Hu Feng, "'sketches' are critiques of social phenomena

[22] Pang, 46.
[23] Weihong Bao presents an extensive reading of this sequence in chapter four of *Fiery Cinema: The Mergence of an Affective Medium in China, 1915-1945* (Minneapolis: University of Minnesota Press, 2015).

expressed or hinted at from the aspect of imagery."[24] An author would simply describe phenomena that he or she encountered on a particular day, without necessarily integrating it into a narrative format, or even providing significant commentary. One of the sketches that Mao Dun penned in 1929 presents the scene at a bathing pool the author visited in painstaking detail, noting the jets of water spraying out of leaks in its faucet and profiling all the individuals present.[25] The sketch waits several paragraphs before introducing the writer's embodied perspective, and then only as a point of reference with which to describe the "five heads" surfacing in the circular pool, which in their semicircular configuration formed a "sentry line."[26] While Mao Dun records some of his internal reactions, the entire scene appears eerily frozen under his naturalistic accounting.

It could be said that the prose of the novella *Spring Silkworms* took some elements of the sketch's naturalistic technique, but wove it into a far more humanistic lifeworld. Critics since C.T. Hsia have often praised how Mao Dun dwelled in compassionate, humanistic detail even when he was portraying the "feudalistic" customs he wished to rid. [27] David Der-wei Wang finds *Spring Silkworms'* seemingly neutral scientific descriptions to be part of a complex rhetorical strategy. They "usher his readers into a world where the diseased mode of production is still under way, even though

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[24] Quoted in Charles Laughlin, *Chinese Reportage: The Aesthetics of Historical Experience* (Durham: Duke University Press, 2002), 157.
[25] Mao Dun, "Suxie yi," *Mao dun sanwen ji,* Canshuwang, http://www.99lib.net/book/2314/69610.htm (accessed 17 May, 2017).
[26] Mao Dun, Ibid
[27] As a famous line from C.T. Hsia has it "although it is his articulate intention to discredit this kind of feudal mentality, his loving portrayal of good peasants at their customary tasks transforms the supposed Communist tract into a testament of humanity" cited in David Der-wei Wang, *Fictional Realism in Twentieth Century China: Mao Dun, Lao She, and Shen Congwen* (New York: Columbia University Press, 1992), 51.

history has evolved to the next stage of its set course."[28] The old sericultural process is suspended in the care of description without becoming, in turn, a nostalgic ode, nor, on the other hand, an entirely cold scientific account. Realism, as opposed to naturalism, relied precisely on this precarious balancing of detail with the human world as measure. It is likely that Xi Yan had such a mode portrayal in mind when went to work on the script for the film. However, literary modes could in the end only be inspirational for cinematic ones. As Ling He's comment on the difference between literature and cinema suggests, the film's treatment of the ordinary required a different kind of touch (even if this were not a "climax"). Anxious at being the first to adapt May Fourth fiction, however, Xia Yan and Cheng Bugao hewed closely to the novella. They took an approach that they later admitted was too literal. Indeed, Cheng was so eager to imbue the film with "literary value" that he took entire passages from the novella and printed them verbatim on the intertitles.[29] In the end, however, divergences were necessary. Consider, for example, the following passage from Mao Dun's text:

> By the fourth molting, their silkworms weighed three hundred catties. Every member of Old Tong Bao family, including twelve-year-old Little Bao, worked for two days and two nights without sleeping a wink. The silkworms were unusually sturdy. Only twice in his sixty years had Old Tong Bao ever seen the like. Once was the year he married; once when his first son was born.

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[28] Wang, 51.

[29] For a discussion of how discourses of literary value functioned in early Chinese cinema, see Emilie Yueh-yu Yeh, "*Wenyi* and the branding of early Chinese film," *Journal of Chinese Cinemas* 6.1 (2012), 65-94.

> The first day after the fourth molting, the "little darlings" ate seven loads of leaves. They were now a bright green, thick and healthy. Old Tong Bao and his family, on the contrary, were much thinner, their eyes bloodshot from lack of sleep. No one could guess how much the "little darlings" would eat before they spun their cocoons. Old Tong Bao discussed the question of buying more leaves with his son, Ah Si.[30]

The "naturalism" of such prose is clearly overstated. Mao Dun incorporates precise measures of weights and numbers, but rather than rendering them present as objective scientific account he buries them in the lifeworld of experience. For the reader unschooled in sericulture, the significance of three hundred catties silkworms, or seven loads of mulberry leaves, could only be gauged in reference to the old man's authority, narrated according to traditional storytelling conventions ("Only twice in his sixty years…"). The patriarch's authority thus serves as the ground for this section's *baihua* prose, creating lived measure for numbers, which otherwise mean little, especially as they approach the threshold of uncertainty. When "no one could guess how much the 'little darlings' would eat" they, and the reader, could at least find home in the quaint colloquialisms that illustrated the peasants' sentimental attachment to the process. The "loving portrayal of good peasants at their customary tasks" could only be achieved by presupposing the organic continuity of the vernacular with Old Tongbao's perspective.[31] As a result, however, the passage betrays a fundamentally passive relationship to the time of production as such. Juxtaposing the green, thick, and healthy silkworms with the

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[30] Mao Dun, "Spring Silkworms," trans. Sidney Shapiro in *The Columbia Anthology in Modern Chinese Literature 2nd Edition* (New York: Columbia University Press, 2007), 67.
[31] C.T. Hsia, see note 13.

image of the family's thin appearances and bloodshot eyes subtracts duration from both; the labor of "two days and two nights without a wink" passes by with an inevitability commensurate to fate.

Whereas the novel's portrayals remained humanistic precisely because they were able to weave process details into the colloquialisms and habits of human experience, cinema had to do without the friendly face of language. Modernist films of industrial process such as Joris Ivens *Phillips Radio* (1931) or Walter Ruttman's *Berlin: Symphony of a City* (1927) capitalized on this point, but a film depicting an endangered artisanal industry would have to approach the issue differently. Consider the film's portrayal of the exact same course of events. Old Tongbao picks out a worm from the basket and shows it to the light and speaks; an intertitle takes the text directly from the novella "Only once in sixty years…" The title ends, and the next shot is a tableau. Framed around the large circular basket at the bottom of the frame, three figures stand equidistant, exchanging looks (appendix 1a). The shot resembles that of a family gathered around a circular table, a geomantic trope evoking the happy ending, or *datuanyuan* 大团圆 (lit. "the big circular gathering"). On the basket's semi-circle, however, is a pile of mulberry leaves, visual evidence of the silkworm feast. Despite the filmmakers' efforts to code Tongbao's enthusiasm in the rhetoric of the image, the very means it uses effects a certain digression. Moreover, the close-ups of the worms the film depicts surrounding this sequence resemble more illustrations in scientific textbooks than the "bright green, thick, and healthy" worms of Mao Dun's description (1b). These worms can by no means be described as "little darlings." The picture thus challenges the trope.

The Preparations

Writing in 1983, Cheng Bugao professed that "the protagonists of *Spring Silkworms* were the silkworms themselves."[32] Despite the charm of such a claim, it overstates the film's unity of design and content (which nearly all the contemporaneous critics questioned). The silkworm life-cycle is not the primary temporal axis that the film runs on; if it were, its claim to being an "educational film" would have been better received. This said, nearly two-thirds of the film's runtime is devoted to detailing various stages in the process of traditional silkworm production: the purchase or eggs, their incubation, the first feed, the first, second, and third molts, the cocooning, after which the family attempts to sell the cocoons to a cocoon bank, only to find out that all of them have closed down after the fighting broke out in Shanghai. The family travels far to bring their cocoons to the last remaining silk factory open in the region, only have all but one bundle of cocoons rejected. Around this process, this "*unremarkable* commonplace phenomenon of a business that is unable to make ends meet," the film weaves a minimal set of human relations and attitudes. Old Tongbao, the family elder, is wedded to his peasant traditionalism, with its superstitions and resistances to new information. The older son Ah Duo, on the other hand, is more attuned to the new. He encourages Tongbao to buy foreign silkworm strains, and the latter, despising anything foreign (*yang* 洋) except for foreign silver (*yangqian* 洋钱), only acquiesces to buying one sheet of import eggs (*yang zhong* 洋种) alongside many sheets of the domestic standard (*zheng zhong* 正种). Disdainful of superstitions, Ah Duo also fools around with a married neighborhood

[32] Cheng Bugao, *Yingtan yijiu* (Beijing: Zhongguo dianying, 1983), 1-2.

woman, who is from the city, and hence already a sort of pariah. In what constitutes perhaps the only *dramatic* sequence of the film, the woman's crop fails and she becomes untouchable to anyone in the village. Tongbao issues a severe injunction against Ah Duo having anything to do with her, exemplifying the way that, in the words of David Wang, "the peasants take care of the silkworms with a religious fervor otherwise reserved for ritual."[33] At the end of the film, however, Ah Duo discards this religious fervor, quite literally, when he angrily throws a root of garlic meant to signify the fate of the crop into the village pond.

The shift from cultivation to market represents the main axis of the film's conflict. Whereas the silkworm season is exceedingly successful, it is the market that brings in the cruel macrocosmic reality, where the value of silk cocoons is made *relative* to fluctuations of socially average labor time (determined by multitudinous factors, such as war, infrastructure, and production technology) rather than anchored in what can be gauged by the senses and measured against prior experience. Whereas many harbingers of bad news tell Old Tongbao that this year is a bad year for silk, he never thinks to believe them ("Now you're talking your schoolhouse nonsense again. These cocoons are hard as eggs! I can't imagine people not buying them!"). Rather than believing their words, he would rather believe his eyes, as would the spectator, faced by the beautiful cocoons. In a sequence that I discuss at length later, the film presents us with a showcase of the product: close-ups of the luminous silk cocoons stitched with reaction shots of the family members. But the exuberance of the harvest is empty; for behind it lies the market; and here one wonders whether there is difference between the cocoons themselves and

[33] Wang, 51.

the divination garlic Ah Duo discards at the end of the film. Both appear to be equally false idols. Before we can entertain such thoughts, however, we must enter into the process sequences, since it is through their microtextures (and microtemporalities) that we can map the development of this crisis.

The villagers are making preparations for the first stage of the sericulture season: the incubation of the silkworm eggs. A title introduces the mood of the sequence in unevenly sized type, printed over a triangular icon that resembles a jaw with pointed teeth: "BEHOLD! They bear with them the utmost HOPE and FEAR, as they prepare for the decisive battle of the silkworm season." We are brought into the production process with a shot from outside the window, peering in at a woman—the mother, He Hua—gazing downward, attentively at work. Her image is obscured, first, by the horizontal line of the windowpane, and secondly by tree leaves, reiterating a classical motif of domestic interiority (see appendix figure 2a). The camera tracks in, through the leaves, to reach a medium shot of the woman, who we now see digging her hands into a wicker basket. The next shot is a close up of a cutting surface, lit on one side of a diagonal line; a hand reaches into the frame to grasp what appear to be mulberry leaves, another with a knife to cut them into small pieces (2b). A third shot returns to the other side of the windowpane, depicting her tossing the leaves to mix them (2c). This brief alternating series supplies the introductory material; we are made aware of the process as an image, an interiority, to which the viewer enters as an external observer. The sequence continues, however, to a fade in: we observe a stand of candles on a table in front of a scroll painting. The camera tilts down to several bowls of offerings, then pulls back to show the back a person

kowtowing to the shrine (2d, e). The reverse shot is a surprise: instead the superstitious father, Old Tongbao, it is the son Ah Duo who is praying for a good harvest. His face, however, shows disaffection; he leaves the shot with a dispirited sigh. Behind him, is another woman—an aunt perhaps—whom the camera racks into focus. At first, she is idle, looking at Ah Duo, but as the camera tracks in she gets to work, patching the bottom of a silkworm basket. The camera lingers on her as she presses the patch repeatedly with her hands (2f). The sequence passes into the house of the city woman, Hua Hua; she and her husband are setting their baskets with eggs and leaves. This shot too is given in a fluid pan: the man rips up his mulberry leaves while the woman pads them to the bottom of a basket (2g). After Hua Hua places her basket on the rack, we are given the close up of a sheet of paper with the words "Standard Strain" (*zheng zhong*) which the mother opens to display a black dotted surface. This is the "sheet" of domestically sourced silkworm eggs, over which she sprinkles the crushed mulberry leaves (2h). After this is done, the hands pick up another sheet of eggs, which have a difference appearance. On whiter paper, the new sheet is printed with a grid; patterns of eggs are visible as circular forms within the grids (2i). This is the "foreign strain," as it was called, although in reality it was equally domestically produced (see below). As the camera pulls out, He Hua sprinkles the sheet with leaves and wraps it up in checkered cloth. We are then shown a medium shot of her as she wraps the cloth around her belly in order to incubate the eggs (2j). The final shot of the sequence depicts Old Tongbao at medium distance staring downwards raptly; the camera tilts to reveal that he holds a root of garlic in one hand, and pads it with moist soil with the other. Tilting back up, the shot shows Tongbao

walking and placing the garlic on the ground next to earthenware, to which he bows three times (2k-l).

Although the critics were unable to discern it, the sequence is imbued with a definite rhythm. Rather than depicting a continuous process, it offers a punctuated series in which various acts of preparation and devotion are put on display. Each figure of work and worship is carefully "introduced" with a certain degree of shock, and linked together by an unexpectedly mobile camera. The mother is found voyeuristically through the window (her work then shown in close up); the first shrine sequence is introduced with a fluid camera gesture in which successive informational elements are introduced, each with a slight jolt, up to the reverse shot that surprises us with an image of the son. When Ah Duo moves out of the frame, the aunt appears in the background, as if waiting for the camera's attention to begin her work. The camera then tracks in on her, and we experience a few seconds of the work's duration. The series continues with similar gestures: the city woman and her husband are shown as a juxtaposition to the protagonists; as opposed to carefully chopping up the leaves like He Hua the man rips them apart with his hands. (Whether this presages the failure of the latter's crop it is difficult to tell. Critics were quite right in saying that the film did too little to develop "the peculiarities of its different characters").[34] The shot of Old Tongbao is also introduced in a "reveal," with the camera tilt the disclosing the garlic, an emblem of peasant superstition. The rightward pan following Tongbao consolidates the ritualistic seriousness of his gestures, which are in turn opposed to the perfunctory movements of the son moments earlier. Yet the old man's attentions are mirrored in all the other process

[34] He Lian, et. al, 5.

shots (Ah Duo excluded); eyes are cast downwards, with emphasis placed on the movements of the hands. Object, process, idol, and not people, are the attractions of the day.[35] Between each "attraction" is established a certain equivalence, underscored, in turn, by the fluid camera movement. Moving methodically from one "scene" to the other, the camera emphasizes their separation in space. Like the path of a visitor through fair exhibits, the camera's continuity of movement highlights the discontinuity of the exhibits—their self-contained individuality—as if they were facts connected by a distracted witness. However, the pauses, as we will see, between the camera movement and the movement of each exhibit, are decisive, since with them the film does not catch the production process "unawares" but rather delineates a series of performed acts. The pause between when a shot starts and when the action starts thus generates a particular kind of excess, what I will call that of *educational display,* where there is too much recognition of the act of showing, and hence one's own place within a pedagogical situation. I will develop this thesis by first detouring through a discussion of camera movement.

The Mobile Camera

Cheng recalls that he was inspired to make use of a mobile camera by F.W. Murnau's *Sunrise* (1927), a film about the rekindling of a country couple's love in the city, after the man is nearly induced to murder his wife by a vampish city woman.

[35] The critic He Lian writes, "the director made it so that the audience could only pay attention to the worms…without simultaneously portraying the characters' reaction to the worms…significantly reducing the effect." Ibid, 5.

Impressed by Murnau's tracking shots in which "wherever people went, the camera went with them," Cheng's team put together a makeshift contraption. "We affixed the camera onto a tripod; under it we laid Pomelo tree plank, the kind used on dance floors. When we shot, when the actor moved, the camera would move with him. If the actor walked in a straight line, the camera followed in a straight line. If the actor walked crookedly, the camera would as well."[36] The director's reduction of his camera movement to the following of actors is unwarranted. The sequence I have been discussing does not correspond with the pattern he describes, and neither does the majority of the camera movement contained in the film. In order to further understand the function of Cheng's makeshift dolly, then, it will be worthwhile to compare it to one of the famous tracking shots in *Sunrise,* with specific importance for film history. The sequence in question occurs ten minutes into the film, when the rustic male protagonist goes out on an illicit rendezvous with the city woman. His back is depicted against a greyed-out landscape, illuminated by a moon at the top left (see appendix figure 3a.). He continues to walk, and the shot follows him; as he turns right to enter a dark forest, the camera makes a circular movement in the other direction, shifting from his right to his left. Now running parallel to the actor, the shot continues to follow him, but now separated by tree branches and bramble (3b). The man climbs over a wooden fence, and now walks in the direction of the viewer (3c). Before he dwarfs the screen, however, the camera pans left one hundred and eighty degrees to reveal another copse of trees (3d). It then loses the subject, pushing through the leaves and branches, revealing the city woman, on the right side of the screen, framed against a swamp, with an additional moon hanging over frame center (3e-

[36] Cheng Bugao, 3.

f). (Murnau reportedly had two moons on the set). She is waiting, twiddling a flower in her hands, which she throws into the swamp upon noticing the man's approach. Putting on makeup, she then greets the man as he enters in from frame left, on the opposite side of where the camera left him (3g). The two embrace, and their silhouettes are graphically matched, in the next shot, to the man's wife, sobbing, with a child in her arms.

The entire sequence (3a-3g) is encompassed in one shot, a feat made possible by carefully laid tracks, coordinated with the actor as he moved on the set. The ambulatory camera syncopated with the actor's seemingly erratic movement creates an ominous effect; despite the carefully laid tracks, the shot induces a vertigo commensurate with the man's moral derailment. Brought outside the elliptical conventions oft used to depict transit in silent cinema, the audience is suddenly at a loss. We know where the man is going, but there is no way to predict where *shot* will go, and in this the shot acquires a duration independent from the duration of the subject. When the camera loses its subject (3d), the disorientation is complete; yet soon after it proceeds through the leaves (similar to 2a) into another picture: the well-framed image of the woman waiting. However, she is on the *wrong side* of the shot, that is, the side opposite to the expectations of continuity. The man also enters the shot on the wrong side, again a jar to cognitive topography (and spatial realism). Where did he go after the camera lost him? What fugitive paths did he take? The smooth continuous passage from one image to another, however, suppresses these questions, or better, it disperses their doubting force into the atmospherics of the shot. The specious nature of the city woman's seductions ("come to the city") is reproduced in the texture of the image, which unites two discontinuous pictures and their two moons with the undeniable veracity of an unbroken shot. The epistemological status

of the image is thus thrown into question at the same time that it is confirmed. By the time one reaches the second perfectly framed image, the first recedes into an impossible memory, yet it remains present as a force on the latter. Scholars interpreting Murnau's tracking shots have linked its ambulatory gaze to the sensory figures of the modern city, to which the protagonist is drawn.[37] Indeed, the alternating sequence that occurs immediately after the one in question appears to underscore this fact: on the one hand, the embrace between the man and the city woman frolicking at the swamp passes into giddy superimpositions of traffic, dance floors, and concerts (then thoughts of murder); on the other, the wife sobbing with her child at home undermines the sense of exhilaration by pegging it to a moral compass. The alternation between (moral) orientation and disorientation implied by the parallel editing already manifests in the epistemological erring of the tracking shot, where on the one hand the camera loses its subject only to recover it again as subjectivity, and on the other it reveals this subjectivity as unmoored and hence desubjectifying. "The sinuous curve of the track following him as he walks down through the rushes, the sudden revelation of the marsh as he walks toward the woman, translate both his movement and his feelings—his hesitation and finally his astonishment—and have the effect of making the audience share his feelings, experiencing them at the same time as the character," writes Jean Mitry.[38] But the twist is

[37] Giuliana Bruno *Atlas of Emotion: Journeys in Art, Architecture, and Film* (New York: Verso, 2007), 27.
[38] Jean Mitry, *Aesthetics and Psychology in the Cinema,* trans. Christopher King (Bloomington, IN: Indiana University Press, 1990), 184.

that the audience is made to feel what the man is feeling precisely insofar as the latter, in his desire, has journeyed beyond himself and lost all bearings.[39]

One finds the model for this necessarily ambivalent and oscillating subjectivity in other modes of tracked technological transport. Drawing on Wolfgang Schivelbusch's study of railway journeys, Lynne Kirby observes the degree to which early twentieth century train passengers were constantly drawn between the shock of temporal disorientation and the hypnotic vulnerability to new certainties.[40] Mirroring the cinematic mode of perception, the immobile passenger observes an unfamiliar world moving past her window at unprecedented speed, yet a steady homogenous rhythm lulls her into a dream state. In *Sunrise,* the famous trolley journey that precipitates the country couple's remarriage in the city shares this characteristic of shock and serenity. Taking place at the most desperate moment in the country couple's relationship, the sequence tracks past an ever-changing scenery, transitioning from rural to urban. Murnau's cinematography renders his human figures into near-silhouettes, abstract forms pressed against the overexposed exterior (3h-i). Each individual frame, however, is harmoniously composed (according to the rule of thirds); and beyond the window "entire segments of the history of landscape painting and design unfold."[41] Observing how the trolley journey "doubles the camera's own power to track motion and the film's compositional penchant for painterly interplays," Giuliana Bruno links cinematic movement with urban navigational

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[39] As Gilles Deleuze observes, elaborating on this passage, the tracking shot's subjective "identification" of character and camera reality is in fact a constant passage between subjective and objective, a "semi-subjective image." See *Cinema 1: The Movement Image,* trans. Hugh Tomlinson and Barbara Habberjam (Minneapolis: University of Minnesota Press, 1986), 72.
[40] Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema* (Durham: Duke University Press, 1997), 7-8.
[41] Bruno, 27.

practices of *flânerie,* the panorama, and the tour.[42] For Bruno, what is essential to such practices is a certain erring, or wandering, through built and representational space, a form of movement that undoes the objective qualities of perspectival image-architectures and enters one into an embodied durée, coded feminine and historically indexed to women's increased social and spatial mobility at the turn of the century. The same modes of urban experience are however inseparable from the reign of homogenous equivalence brought about by the ascendance of commodity culture. As Walter Benjamin knew all too well, the emancipatory aspects of the modern sensorium were in vexed complicity with counterrevolutionary designs.[43] Indeed, *flâneur* transforms in character and gender after he leaves the narrow passages of the Paris arcades and continues to wander on boulevards that have been widened in order to thwart citizen barricades and facilitate the movement of troops.[44] For Benjamin, this relationship between flattened boulevards and the sensual surfaces of commodities repeats the structure of the commodity fetish, except here use-value is elided for the asymmetry of exchange value and display, a dichotomy brought home by the industrial exhibit. "World exhibitions," he observes, "are a school in which the masses, forcibly excluded from consumption, are imbued with the exchange value of commodities to the point of identifying with it: 'Do not touch the items on display.'"[45]

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[42] Bruno, 27.
[43] Walter Benjamin, "Paris: Capital of the Nineteenth Century, Expose of 1939," *The Arcades Project,* trans. Howard Eiland and Kevin McLaughlin (Cambridge MA: Harvard University Press, 2002), 14-26.
[44] As Anne Friedberg shows, the transformation of the female streetwalker from prostitute to shopper was, indeed, inseparable from the Hausmannization of Paris. Thus, while the celebrated version of the *flâneur* is male and specific to the seedy arcades, the *flâneuse* comprises a far more ambivalent figure, liberated by the boulevard only on condition of being turned into a shopper. Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1996).
[45] Benjamin, 18.

The verbiage on the display case commands what is already implied by the organization of the space; moving distracted through the exhibition, the visitors lose sight of the objectality of the things put before them (the latter ceases to be ob/ject, standing against the sub/ject, who must appropriate it by bending it to his will); they are no longer subjects, becoming instead open wounds of subjectivity; they circulate in the ambivalence between sensory figure and general equivalence. Whereas general equivalence could only be realized in deferred time, after the object it embodies is exchanged it with another, its display, on the other hand, constitutes the present embodiment of that inaccessible futurity; it stares the masses down as the latter gawk at it and then move on to the next exhibit (they will come back to it later). In their distracted reception, the masses gain an edge against their enemy, but only at the cost of taking up the latter's deferred temporality in their idle gait and senseless chatter. "Empathy with the commodity," Benjamin would call this in a letter to Adorno.[46] Empathy could indeed become identification. The circulatory movement of shoppers in a department store imbues them too with the quality of commodities, just as the French intelligentsia "surrenders itself to the market, thinking merely to look around; but in fact it is already seeking a buyer."[47] As a consequence, one finds the threshold separating the "mass delights in amusement parks" and "that state of subjection which propaganda, industrial as well as political, relies on" entirely indiscernible.[48] The felt ambivalence (and anxiety)

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[46] "Empathy with the commodity presents itself to self-observation or inner experience as empathy with inorganic matter…Basically, however, empathy with the commodity is probably empathy with exchange value itself." Walter Benjamin, "Reply," trans. Harry Zohn in Bloch et. al. *Aesthetics and Politics: Key Texts of the Classic Debate within German Marxism,* ed. Ronald Taylor (New York: Verso, 1980), 140

[47] Benjamin, *The Arcades Project,* 21.

[48] Benjamin, *The Arcades Project,* 18.

provoked by the problem of ambulatory movement is thus encompassing. Murnau's continuous tracking shots figure in real time the relation between two disjunctive pictures, which until then could only be thought in abstract equivalence (montage); it hence offered a visual idiom with which to engage the vertigo of the city and its industrial commodities on display. And it was precisely this that Cheng Bugao needed when he was charged with shooting *Silkworms,* a film that, lest we forget, was made to educate the public about Chinese "the silk problem."

In sequence 2a-l, however, one observes a difference between Cheng's use of the mobile camera and that of Murnau (3a-g). Put simply, there are far fewer "tracks" (or wooden planks) laid down for any single shot; as opposed to a continuous image, we are given a series of connecting movements edited together as part of a montage sequence. Upon first viewing, the series may in fact appear quite homogenous, giving, in postcard form, the various moments in the villagers' preparations and their accompanying worships. "Look how the villagers are working/look they are praying," one might think. Yet successive viewings reveal subtle interplays in movement: the camera pushes in, through the leaves, into a picture, which it interrupts with a close up of work (2a, 2b); it pulls out to reveal the shrine and the back of its worshipper, then surprising us with a face, it pushes in to show another scene of the work (2d, 2e). With the exception of 2b and c, the close up of the cutting board and the second shot outside the window, each shot in 2a-e completes a "reveal." Each gesture includes a dead zone (the original long shot in 2a, the CU of the shrine in 2d, the out-of-focus aunt in 2e) and an area of activity that the camera movements bring into view. The directionality of the movements compensate for each other, such that the viewer's perspective remains suspended in constant oscillation,

in and out, then in. This changes with the pan of the city couple, but resumes with the close up of the first sheet of eggs (**2h-j**), which pulls out to reveal the cloth wrapping, although the next shot of the mother attaching the package to her belly is static. The shots depicting Tongbao with the garlic repeat a similar gesture; tilting down, then back up, then panning right. A reverse close up of the garlic being set on the ground is matched to a medium long shot of the old man praying. Interspersed with a few static shots, often framed as reverse shots or "result" shots, the repeated in-out/down-up oscillation plus rightward pan pattern serves to isolate the zones of movement within the image, highlighting dead space, without at the same time losing the spectator in the virtuosic performance of the recording apparatus. Paradoxically, the camera movement emphasizes the stillness of the mise-en-scène, in which it reveals a single moving part. The static shots then serve to complete these movements, installing them in the display case, so to speak. Rather than an excess of subjectivity, as in Murnau, there is a scarcity of it. Each individual gesture of work and prayer is installed in its place. The camera enters into the work of each in order to leave it as soon as it has extracted its due. Yet, in both, something the excess of cinematic display is grasped in movement. Whereas in Murnau, camera movement brings the spectator *into* the image, and arguably into the psychic interiority of the protagonist as he takes leave of all that is good and decent, in Cheng, it maintains a wall between the movement of the visitor and that of the exhibit. What is rendered excessive are precisely the dead zones, which serve to emphasize the frame of action. Movement brings into view an *excess of framing,* the opacity of interface.

I have called this a form of educational display, which has similarities to the fairground amusements Benjamin describes in his essay on the Berlin Food fair, quoted

in the epigraph above.[49] There, the traumatic energy of movement—the jaw of the lion—inscribes within the masses, who do not wish to be "instructed," a new neural pathway, around which the information presented about a display can coalesce. A similar structure can be found in the toys depicted in *Playthings,* which I have discussed in the previous chapter. To recap, the film also tells a national products story, except here, the production process is elided in favor of a melodramatic narrative following Sister Ye, an artisanal toy producer whose trade is threatened both by foreign product and by the domestic mass production that she nonetheless cannot not support. Instead of grasping the toy as production process, however, the film grasps it as object, a token of exchange between the disjunctive social sectors of the semi-colonial modernity. That said, the film *does* provide a story of production, however elided, which bears mentioning here. In an early sequence, the village noodle merchant played by the comic actor Yin Xiuchen is assaulted by children brandishing Ye's toy weapons; in order to defend himself, he shields his face with a toy mask he finds on the ground (**4a**). Observing this, Sister Ye has an idea, and immediately goes to her studio. The toy she produces features an orangutan holding a tribal mask attached to strings, which are in turn tied to a wooden stick; when one tilts the stick, the mask comes up to cover the its face; tilted the other way, the mask comes down (4b-c). (The content of such a toy warrants an entirely separate discussion, which cannot be done justice in the space of this essay. Suffice to say that the image of anthropogenesis contained therein derives its two components from the European imperial imaginary, whose exhibitions featuring primates and tribal

[49] Berlin, "Food Fair, 136.

paraphernalia were a set feature of Shanghai's entertainment culture).[50] The toy's charm lies in the fact that it distills from the world the individual gesture, which it then renders manipulable to its holder. The child, or adult, is thus capable of reproducing the gesture ad infinitum, according to the psychic requirements that Sigmund Freud aptly demonstrated in his analysis of *fort/da*.[51] In the latter, the child gains a degree of symbolic control over the trauma of the mother's uncontrollable presence and absence by unrolling a ball of yarn off the side of his bed; meanwhile the toy enables its users to repeat a lost moment through the preservation of its fundamental movements. The toy becomes, so to speak, an interface for accessing maternal absence. Important in Freud's analysis, however, is not only the fact of control but also the nature of the ball of yarn as a toy where the thread and the object attached to the end of the thread are indistinguishable. The toy thus does not stand in for an existing psychic need, but rather the material nature of the toy itself structures the consistency of that need.

Andrew Jones's masterful reading of the film's narrative as a dialectical story of the place of the child in semi-colonial modernity registers an element of this structure.[52] In it, he argues that if the child in Republican China becomes a national investment in a future national subject, nothing prevents the same child from becoming an object of exchange value, kidnapped and sold as an orphan.[53] In staging the devastating and improbable encounter at the film's end, where Sister Ye gives toys for free to her

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[50] Andrew Jones, for example, tracks how the caged animals in Carl Hagenbeck Circus became model and metaphor for Lu Xun's fascination for caged animals. See Jones, *Developmental Fairy Tales : Evolutionary Thinking and Modern Chinese Culture* (Cambridge, Mass: Harvard University Press, 2011), 147.
[51] Sigmund Freud, *Beyond the Pleasure Principle,* trans. C.J.M. Hubback (London: International Psycho-analytical Press*,* 1922), 12
[52] Jones, 138.
[53] Jones, 138-45.

kidnapped son without knowing it, Sun Yu repeats the gesture that the artisanal toy maker herself made in transforming the noodle merchant's comical gag into a moving toy. That is, he surmises the contours of historical trauma in a set of movable parts, which he uses to repeat and thus bear witness to it (in his reading of this film and others from 1930s Shanghai, Hong Guo-juin attributes this process to melodrama and the "spatialization of time").[54] The movable parts can be shifted, however, and herein lies the possibility of "education" and change. In a pivotal sequence that Jones cites, Sister Ye's daughter Zhu'er finds "uneducational" her mother's toy modeling two human figures begging for their lives at the mouth of a tiger; she make a few adjustments so that instead of kowtowing at its mouth, they strike it from behind (4d-e). Such small changes to the objects refigure them. They are less expressions of subjective ideological changes as alterations to the texture of ideological concretions. Reduced to a limited set of movements, the toys offer themselves for manual reconstruction, which enable them to figure other futures. The mass-produced toys that the film depicts, on the other hand, were molded in plastic; they enabled a fundamentally different set of movements: a doll with pliable limbs that could be manipulated into various poses; tanks and airplanes spring powered to provide them with lateral range. These were imperialist toys whose modes of movement educated their users in the manipulation of objects and the conquest of space. Sun Yu's superimpositions that link them to the actual implements of war and commercial domination require no metaphor (4f-g).

Exhibition Value

[54] Hong Guojuin, "Meet me in Shanghai: Melodrama and the Cinematic Production of Space in 1930s Shanghai Leftist Films," *Journal of Chinese Cinemas* 3.3 (2009), 215-230.

Both *Playthings* and *Spring Silkworms* were produced for national product year. Despite their different subject matter and aesthetic treatments, both films echo a certain figuration of objects: an isolated trait of movement, which presents the spectator with a slight shock. Why these figurative motifs from the cinema of attractions remain central features of Chinese narrative film circa 1933 is a question for a different occasion. They reflect, in any case, the structure of the industrial exhibition of which they are to be an example. In his study of the Chinese national goods movement, Karl Gerth observes the ubiquity of the "nationalist commodity spectacle" in Republican-era China.[55] From trade exhibitions, museums, stores, and advertising to films and national goods parables in the popular press, the state, private industry, and public sphere actors joined to link the consumption of domestically produced goods with patriotic sentiment by putting them on display. The inspiration was doubly Japan: taking Japanese industrial exhibits as examples, Chinese intellectuals and statesmen saw exhibition as the first step to the development of industry and commerce; facing the expansion of Japanese commerce into Chinese markets, they sought to adopt its practices in order to compete.[56] Occasional national goods fairs were replaced by permanent exhibits. In 1927, the Ministry of Industry and Commerce ordered each province and municipality to establish a national goods museum. It laid out strict rules forbidding the placement of foreign goods.[57] In 1928, the ministry organized a grand Chinese National Products Exhibition in Shanghai, featuring high profile speakers including Chiang Kai-shek, Cai Yuanpei, and the Minister of Finance T.V. Soong (Song Ziwen). The opening procession marched along the newly

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[55] Karl Gerth, *China Made: Consumer Culture and the Creation of the Nation* (Cambridge MA: President and Fellows of Harvard College, 2003).
[56] Gerth, 233.
[57] Gerth, 233.

built National Products Road[58]; the exhibition grounds they reached matched the grandiosity of the figures in the procession. All forms of media were mobilized to publicize the fair; airplanes flew banners, samples of the goods were sent out for free, and the preparations committee circulated a special essay collection, which featured trade statistics to "awaken the attention of citizens."[59] Interpreting the event and others like it, Gerth gestures towards the construction of a "nationalistic visuality" of the commodity: "the reigning idea (as expressed by Benjamin) suggests that world exhibitions eclipsed the 'intrinsic value' of commodities by glorifying exchange value…the Chinese commodity spectacles examined here redirected this process by attempting to bind this market value to the nation and create a 'dream world' of nationalistic consumption."[60] Rather than operating under the aegis of universal exchange value, Chinese exhibitions were hemmed in by discourses of the national and the imperial. Confronted by a situation where the government could *not* keep foreign goods out of the market, the exhibitions constituted a "displaced anti-imperialism" in which "the desire for the nationalized market was achieved in miniature."[61] Despite its status as a miniaturized reaction-formation, however, Gerth notes that the proliferation of exhibits achieved their intended effect; they "naturalized the notion of consumption based on nationalism and imperialism rather than 'exchange value' (market value)."[62]

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[58] Gerth, 250
[59] "Gongshang bu zhuban guimui zhui da zhi Zhonghua guohuo zhanlan jinian tekan," quoted in Gerth, 256.
[60] Gerth, 219.
[61] Gerth, 241.
[62] Gerth, 206.

Gerth's assumption that nationalism and imperialism comprise notions distinct from that of exchange value is questionable at best. If Benedict Anderson showed that the nation was a fundamentally modular form that mirrored commodity's reign of equivalence, the foregoing analysis folds in the question of movement.[63] Nationalism does not exist as mere slogans that the intellectuals and social planners convince the masses to believe; it is successful only insofar as it creates the reality of its referent. The miniaturization of nation via the presentation of goods at the exhibit did more than displace the realities of economic imperialism, they also simulated a general national metabolism, where, due to poor roads and insufficient rail networks, such economic intercourse was not forthcoming. Yet this very unevenness seeped into the representational practices that aimed to hide it. In 1928, due to poor infrastructure, goods from Yunan province did not arrive at the Shanghai exhibit until the second week; items from Tianjin and Hunan province did not arrive until the second month.[64] Infrastructural unevenness is thus transposed into gaps in the exhibit. Another problem was the authenticity of national goods, which was difficult to determine. The severe rules published for the exhibit where "counterfeits, as soon as they are discovered…will be immediately removed from the exhibition grounds and confiscated" evidence a well-founded anxiety.[65] Writing of toys, Lu Xun observes a commonplace situation: "on the side of the road, a foreign goods store displays a few stuffed animals. The tag says they are from France, but I've seen them in the Japanese toy store too, only the price tag is different. Hanging from carrying poles and laid out on the street, there are rubber

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[63] Benedict Anderson, *Imagined Communities: Reflections on the Origins and Spread of Nationalism* (New York: Verso, 2006).
[64] Gerth, 257.
[65] Gerth, 203.

balloons that you can blow up. On them is the impression 'one hundred percent national product'; apparently the Chinese produced these themselves. But I see Japanese children playing with the same balloons, with the same print. I suppose they made those themselves as well."[66] Here, Lu Xun does more than imply that the national product marker on the balloons might be fake. The passage does nothing less than challenge the construction of product nationality: on the one hand, there is false labeling; on the other, there is the fundamental disjuncture between caption and use. Commodities, after all, do not know national boundaries, to such a point that when a linguistic marker of product nationality switches users, its meaning fundamentally changes. Moreover, the Japanese kids use the toys regardless of their national origin, while Chinese believe against belief in the sacredness of the object's textual captions; their hands are preoccupied grasping at the tag rather than taking hold of the thing that it is supposed to mark.

Words and Things

"Although our country is vast, transportation is inconvenient," writes the educator Liu Zhichang in 1934, "often the northern wares spoken of in books are never found in the south; similarly, southern customs are drastically opposite of those in the north. These facts lower significantly the value of books. If we are to conquer this difficulty, we have no other choice but to produce these filmic supplements to compensate for what is lacking in books."[67] In the discourse of the educational film, one finds the questions of transportation infrastructure enmeshed with the referentiality of written text (as described in chapter 1). The cinematic image compensates for what national infrastructure cannot

[66] Lu Xun, "Wanju," *Huabian wenxue*, douban.com, https://site.douban.com/107795/widget/notes/264538/note/134284764/ (accessed 17 May, 2017).
[67] Liu Zhichang, "Dianying jiaoyu chubu shishi fa," *Minzhong jiaoyu tongxun* 3.10 (1934), 20.

provide, and in doing so, it finally supplies something the teacher can point to while lecturing about alien sounding national products, animals, plants, and customs. That films too had to be transported is a topic I discuss at length in chapter 4. Here, I reserve my comments for the question of textbooks and their illustration. The 1933 version of *Silkworms* contains an introductory sequence that has since been excised from the print.[68] Beginning with an intertitle "everyone can recall fond memories such as these," the sequence moves to a classroom, where the teacher points to a chalkboard illustration of a silkworm. The camera moves to a textbook on a student's desk, which opens to read, "In our country, Zhejiang etc. are the biggest producers of silk, China's prime export. Today Japan, Italy, etc…" The text is then to be interrupted by an intertitle that would put an end to fond recollection: "However several decades of imperialist's economic invasion has rendered our past glory into an ephemeral spring dream."[69] A second sequence begins, now located on the wharfs of the Huangpu river, Shanghai. The camera is set on the stern of a foreign battleship and directed at a deep-water merchant marine. A series of dissolves then show the crane on the merchant ship, a pile of artificial silk on the dock, and the feet of the laborers loading the silk onto trucks. "Statistics tell us…" says the intertitle, and the statistics are displayed, as one critic tells us, in the format of pie charts showing national output, counterpoised with newspaper headlines reporting the decrease in Chinese silk exports, and the closure of factories.[70] The headlines are then substantiated with shots depicting closed down factories and unemployed workers. A final intertitle—"here, let us tell you a sad story about farmers struggling in this time of

[68] Cheng Bugao, "Sheying taiben Chuncan," *Mingxing* 1.5 (1933), 26.
[69] Cheng Bugao, "Sheying taiben," 26.
[70] Feng Wu, "Chun can ping," in SSND, 258.

invasive foreign capital and war"—then dissolves into an image of the front cover of the novella.

It is evident that Xia Yan wished the second half of the sequence to eclipse the first in every way. The quaint silkworm illustrations and outdated textbook are juxtaposed with actualities of ships in harbor and piles of artificial silk on the dock. It was also quite new for Chinese filmmakers to use statistics in their work; one critic was confident in its ability to "take hold of the average viewer's mind [*xinli* 心理]."[71] As Tong Lam observes in his study of social surveys in Republican China, statistical diagrams were not simply one way of presenting data over others. They were an imposing visual experience of simultaneity and imagined community. "Individuals and groups that previously belonged to different temporal and spatial realms were now linked together as subjects and observers of these social facts," he writes.[72] Like the death charts in *Water Hygiene* (chapter 1) and the flow chart from *Porcelain* (above), the statistical overlays employed in *Spring Silkworms* mirror actuality footage in their capacity to transform threads of dissynchronous experience into visual fact. In the intro sequence, they are shots fired in the battle between educational media, acting out the film educator's mantra "replacing the chalkboard with the silver screen."[73] With respect to the film as such, the intro sequence marks the film as an "educational film." Having transcended the classroom of "fond memories," it institutes cinema as a new classroom; but to do so it had to shore up its authority by inscribing it with pedagogical and then

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[71] Shi Bin, "Chun can zhi guan gan," *Shenbao* (9 Oct 1933).
[72] Tong Lam, *A Passion for Facts : Social Surveys and the Construction of the Chinese Nation State, 1900-1949* (Berkeley: University of California Press, 2011), 48.
[73] See Chen Zhongli, "Yinmu yu heiban," *Minzhong jiaoyu tongxun* 3.10 (1934), 1-5.

literary iconography. Mao Dun's *Spring Silkworms* opens to the first page before it fades out and into a leftwards pan across the village center.

While the critic Ling He found the statistical charts a good addition to the film, he argued that they displaced the explanatory work that should have been incorporated within the diegesis itself. The film had failed to educate audiences on the causes of the rural economic downturn, Ling observes, "All we know is that in the village there was a peasant called Lao Tongbao, who had an unsuccessful go at raising silkworms."[74] While the film's intro sequence did explain that imperialism was at the root of this, "as anyone knows, films cannot overly rely on written captions and charts."[75] It is clear that Ling He and many other critics wanted a film that more resembled *Torrents.* For them, the available model for connecting filmic reality to political economic exegesis was melodrama, which enabled for the intensity of social conflict to be allegorized within the confines of the dramatis personae without being exhausted by it.[76] Ling He draws our attention to a sequence that is illustrative in more ways than one. Citing the "far reaching effects" of "high interest lending in the rural recession," Ling deplores that the film's one sequence depicting the landlord class does not treat them severely enough. Unlike the callous landlord family in *Torrents* spectating the flood, the *Silkworms* sequence simply depicts the landlord family smoking pipes and telling Tongbao that they buy artificial silk. The sequence, which occurs after the family realizes that they will have to buy more mulberry leaves to feed their ravenous silkworms, is worth discussing at some length, as

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[74] He Lian et. al., 5.
[75] He Lian et. al., 5.
[76] Hong Guo-juin makes this argument Hong, op. cit.. The tracking shot in Murnau, on the other hand, codes temporal excess on the side of a guilt that must be redeemed.

it diegetically figures the critic's questions about the relationship between images and written captions. Tongbao and Ah Duo arrive at the landlord's house in order to take out a high interest loan on silkworms (as the intertitle states). The sequence begins with a close up of a contract, placed at a slight diagonal from the frame on a nondescript surface. The duration of the shot gives the spectator enough time to read its rather extensive text, which states, among other things, that the family is to mortgage their mulberry grove for collateral. A hand reaches in from camera right and signs with a cross; then a second hand comes in from under the frame to add his signature as well (figure 5a). In the reverse shot, Old Tongbao is shown with his reading classes, evincing literacy (he is depicted reading a newspaper earlier in the film); he brings the contract to his face for a final look and passes it to a man with long gown and hat to his right. The latter, evidently an assistant, passes it again to another bespectacled man, who reviews the paperwork, before passing it yet again to a younger man—the "Young Master"—to his right. The camera depicts this relay with successive leftward pans (5b-e). After resting on the young master for a short amount of time, it pans left yet again onto an empty doorway. Out of it emerges a young woman, dressed in a patterned *qipao*; the camera pans right as she comes up to the bespectacled man—undoubtedly the head of household—and passes him a roll of money, which he then passes, in a close-up pan, to his assistant, who passes it to Old Tongbao, who unwraps the package and counts (5f-j). He then exchanges pleasantries with the bespectacled man, who throws a cigarette on the ground, which Old Tongbao (who we know is out of tobacco) picks up and puts in his pipe. This visual allegory of subjection is followed by an exchange between the young master and the two protagonists. Obviously educated in the modern schools, the young man chides the

peasants for producing silk under such economic circumstances: "This year there was war in Shanghai. The cocoon banks won't open, nor are the foreign manufacturers buying. Japanese [*dongyang* 东洋] silk is selling in the U.S. for a mere five hundred *liang* per bundle, but it cost one thousand *liang* to produce one bundle of *Chinese* silk." The pedantic speech causes Old Tongbao to look perturbed. Yet he finds solace when he sees the young mistress's *qipao,* which the camera shows off in reverse shot with a downward tilt. Tongbao breaks into a smile and says that if foreigners don't want to buy Chinese silk, Chinese ladies will always want to wear it. The young man points out that she is wearing the imported artificial material, and the scene ends here.

If the film's intro sequence performs the superiority of visual evidence to verbal explanation, the sequence at the landlord's house would appear to reverse the judgment. Tongbao the semi-literate peasant searches out a visual fact in order to refute the young master's macroeconomic lecture, yet it is shown that appearances can be deceiving. Whereas Ling He would have wished for the film to integrate the macroeconomic question into the visual image by making the landlord personify the moral evil of predatory lending, Cheng Bugao's treatment highlights the degree to which the broader economic forces behind such practices did not and could not signify for the uneducated peasant, despite literacy. Here as before, camera movement tells the story most concretely. The leftwards pan follows the contract—a piece of text the spectators have been given to read—as it is passed between four different readers, a cinematic gesture that borders on comic insofar as it highlights the presence of "middlemen" and disperses the image into a seemingly endless seriality. This is brought home by the last pan, which pauses on an empty space—a doorway—out of which an attractive woman wearing a

flowery outfit emerges. What's more, she is bringing the money, which the camera follows with a symmetrical reverse pan as it passes through several hands back into those of Old Tongbao. In a "left-reveal-right" structure that should be familiar to us by now, Cheng's cinematography lays out a static tableau (the four men reading a contract around a round table) against a single "surprise" (the woman bringing the money), from which it then withdraws with a symmetrical pan to the right. Despite its symmetry, the gesture is sufficient to reveal an asymmetrical relation, the exchange of two illiterate signatures (the two crosses) with a roll of coins, which is attached to the female body, as if evidence of her excess. The circuit between money and the visual spectacle of the woman's *qipao* is then re-established in the sequence's closing shots, where the camera looks her up and down, as if putting her on display. The visual evidence of her outfit, however, may only be interpreted with a written caption, and Tongbao's miscaptioning resonates with crises similar to those of national product displays discussed above. Here, the relationship between the cinematic movement and exchange value is rendered apparent in a far clearer fashion than in sequence 2a-l, which hid it in the visual rhetoric of the agricultural exhibit. Cinematic portrayals of exchange value are always non-homogenous, especially when they involve the continuity of a moving shot. For those viewers familiar with the novella, the family's future debt is already coded in this exchange, and with it, the totality of China's semi-colonial economy. The young master's pedantic intertitle thus registers to the educated viewer as truth, but it is a truth for which the image provides insufficient evidence; there is always a disjuncture and asymmetry between writing and image. If, in Benedict Anderson's sense, print media embodied the abstraction and seriality necessary

for nation-think, cinema could rarely accede to such atemporal purity, being itself a record of time.

Seriality (I)

The direct presentation of time, however, is constantly elided, in a process that remains distinct from Hollywood's rationalization of chance (Doane) or the exaggerated pathos of Shanghai melodrama as seen in *Playthings* and *Torrents.* The exhibit and its cousin the cinema of attractions better describe *Silkworms*' organizing framework: a series of mild surprises that represent indirectly the concrete *durée* of the sericultural process. As we have seen, however, this was less a stylistic choice on the part of the *auteurs* as a requirement that was brought about by the temporal disjuncture between the microcosmic plane of silkworm production and the macrocosmic background of the social structure (it was the way that the authors attempted to solve this *problem*). In order to get at the background, the fiction film (at least films belonging to the movement-image variety) needed to break up its representation of process, that is, to perforate duration in order to allow the whole to enter. Nowhere is this more apparent than in the film's actual production process, which, dealing with a biological process deaf to the director's cues, required both attentive synchronization and temporal elision. Cheng Bugao described the studio process as follows:

> The company wanted to do a proper job, so they invited three experts from Suzhou just to take care of the cultivation process. The company then bought six sheets of eggs for us to use. At that time, the Mingxing studio was located on Pushi road. We had two shooting sets, one large, and one small. Everyday there would be at least three groups filming in them. For *Silkworms*, they committed the small studio

> exclusively for us to grow worms in. We were given [the space] for one and a half months, notwithstanding any company losses. The shooting procedure was done entirely in accordance with the sericultural process. However far the worms progressed, that's how far the filming progressed. The first time we filmed the larva, the heat from the lamp killed off a whole sheet. We shot dead another sheet after the molting period. Silkworms are small and weak. They can't fend off strong lights. So each time they're lit they die.[77]

Studio processes allow us to trace the rough edges between cinematic representation and socio-technological milieu; they evidence the multiplicity of practices and architectures put into place to control chance and to synch the film image to the rhythmic alterations and load thresholds of transport, electricity, sunlight, etc.. As Brian Jacobson observes, they give us a picture of the imprint left by cinema on the technological networks that define modern existence.[78] In this context, Cheng Bugao makes clear that the production of the silkworm footage was complicated work, requiring multiple negotiations between the constants of filmmaking and those of agricultural and biological processes. To set up a sericultural process in the studio, the company had to take losses in efficiency by dedicating one of its glass studios toward the production of a single film. Moreover, the production could only move as fast as the silkworms did; it had to be attentive to their specific homeostatic needs, which were mediated by experts brought in from the outside. The pull went both ways, however. The heat and light radiation necessary to produce images of the worms up to par with desired production values was too much for the

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[77] Cheng Bugao, *Yingtan yijiu* (Beijing: Zhongguo dianying, 1983), 1-2.
[78] See Brian R. Jacobson, "The Black Maria: film studio, film technology (cinema and the history of technology)," *History and Technology: An International Journal* 27.2 (2011), 235-6.

"small and weak" creatures' to bear; luckily, the studio had a supply of six batches and the filming could go on.

The conflict between biological constants and cinematic demands, and in particular that of the *close-up,* is solved with recourse to an old cinematic trick: seriality. Working on the same principles as Georges Meliès' trick shots that eclipsed the passage of time, but toward opposite ends, the *Silkworm* team was able to falsify the continuity of the ontogenetic sequence, displaying each stage of the developmental process and thus matching the norms of the scientific textbook industry. The serial structure continues into the film's cocooning sequence.

> In order to film the cocooning silkworms, we had one camera in the studio aimed at one worm. We turned on the lights, and left them running. We then left the studio, sealed it. So not to influence the cocooning process, no one was allowed in or out. Every three hours, the camera technician tiptoed in and shot a fade-in/fade-out. We stayed at the company to await [the next shooting] for about one day and two nights, coming in and out. We shot several dissolves there. On the silver screen, the shots ended up being quite short, but the results were splendid.[79]

Mixed with industrial image fabrication (falsification) are protocols of care. In order not to disturb the biological process, the team seals off the space, entering and exiting on tiptoes in order to record a few seconds of movement. The rhyme between this filming practice and the in-reveal-out gestures ubiquitous in the film's cinematography should

[79] Cheng Bugao, *Yingtan yijiu*, 2.

Figure 2-2 Production stills showing equivalences between sericulture and filmmaking. Source: *Xiandai* 3.2 (1933), 1.

not be overlooked. Neither should the fact that, during this segment of the process, neither the peasant family nor the film crew gets any sleep. The resulting sequence lasts less than twenty seconds consisting of a series of lap dissolves (6a-c). The silkworms spit silk, and their cocoons get more elaborate; the movements of the worms remain constant as the amount of soft white increases with each dissolve. The sequence blends what the intertitle states was a three-day process (which in the studio lasted only one and a half days) into a continuous transformation, the breaks moderated by the consistency of movement, the soft focus, and the muted white. The final result is then depicted with a moving camera in close-up, a tracking shot along a forest of white cocoons (6d). Just as remarkable is what is depicted in the ensuing sequence, which doubles, diegetically, the care necessary to produce such effects. Ah Duo opens the door to the barn in which the cocooning frameworks had been set up behind a bamboo curtain occupying the left side of the screen. He tiptoes into the shot, followed by the youngest daughter. With one eye he peeks through the chinks in the curtain, then smiles (6e). Moving to the left, he parts the curtain. The camera assumes his point of view and shows the ravishing cocoons again (6f). In the next shot, a reaction at medium long distance, we are shown Ah Duo barely able to conceal his excitement; he chats with the child and lifts her in his arms to give her a look. The camera again takes the point of view, except now it surveys the cocoons in a tracking motion. Their mother, who must have heard the commotion, comes in. Ah Duo and the child are taken aback, as if caught in a prohibited act, but the mother is all excitement. She looks—the camera supplies another point of view shot—and talks excitedly (6g-i), running out to get Old Tongbao. He looks—this time we are not given a glimpse of what he sees—and a smile spreads across his face. The sequence closes as he

bows in thanks.

The sequence confirms much of what the rest of the film has already suggested about the relationship between the cinematic image and the display of exchange value. The ravishing beauty of the muted white cocoons is immediately linked to their economic potentiality, which Ah Duo glimpses voyeuristically as if through the keyhole in the Edison short *What Happened to the Inquisitive Janitor* (1902) or the eyehole in the kinetoscope-like "western mirror" (*xiyang jing* 西洋镜), still popular in Shanghai entertainment venues (figure 6j). The peep suddenly becomes a series of shot-reverse-shot sequences in which the visual evidence of wealth (until now presented solely to the spectator's pleasure) is sutured into narrative time, and Old Tongbao's bow seals the deal, connecting the images we have witnessed to the garlic from before. A critic complained that this sequence embellished the product by dumping already finished cocoons on top of the frameworks in improve the spectacle, thus reducing its realism.[80] This was, however, nothing a good exhibitor would not have done at an agricultural fair in order to inflate the sensory figure of prosperity wrought by the promise of exchange. In depicting the embellished density of cocoons in close-ups that are mismatched in size with the faces of their reverse shots, the film participates in this inflation, which corresponds with the inflated hopes of its diegetic beholders. For a glorious moment, sericultural microeconomics and filmmaking intersect, but this was not to last. In a market sequence that occurs shortly after, an inspector picks through the cocoons, taking only the best and returning the rest, which the family spins into their own silk, which only the pawnshop will accept. The film also opens with a pawnshop sequence, where Tongbao pawns a

[80] Yang Hansheng's comments in Cai Shusheng et. al., SSND, 252.

stack of linens to purchase silkworm eggs. Serial debt confronts serial production, and "each year is worse than the last" (Tongbao's lines, now having lost their traditionalist valence). One wonders how much *Silkworms*, which aired for a total of four days at the Strand Theater, also drove the Mingxing Company into the red.

In undertaking this extensive analysis of *Silkworms,* I have attempted to show how cinematic depictions of industry participate in rather than simply represent questions of industrial process; they record how the latter oscillates in and out of sync with the repertoire of available temporal figures. Several important aspects of the film have had to be neglected in this treatment in order to focus on the immanent depiction of process; to include them would make the analysis endless. Moreover, the film cannot answer the questions that it raises; making use of a limited repertoire of cinematic motifs, it can only limn the ambivalent visibility of the artisanal industry in a semi-colonial context. The possibility of the "national" emerges in the deterritorialization brought about by camera movement, but the slight gestures, always careful to close the gaps that they opened, were hardly convincing for an audience that, just two years ago, experienced aerial bombardment. Critics were quite justified in doubting the exhibition value of artisanal industry when competing with an imperial economic power. "Because all [it shows] are old techniques," Ling He writes, "it does not exhibit for the audience the progress [we have made] in the scientific and industrialized production of silk."[81]

Scientific Breeding

It was likely for the same reason that *Spring Silkworms,* a national product film, never received mention in the Nanjing state's appraisals of the commercial film industry,

[81] He Lian et. al., 5.

while *Playthings* won fourth place at the censorship board's 1934 film competition.[82] Part of the reason, besides being difficult to watch, was that the film's detailed portrayals of the low-tech silk process ran opposite of government policy. In 1933, the state was trying desperately to convince silk farmers to reform their methods. Although the crash of the Chinese silk industry that began in 1932 was jump started by the 1931 battle of Shanghai, other more durable factors also intervened: the great depression limited foreign purchases, strikes afflicted manufacturing plants, and Chinese silkworm harvests were often made unsellable by extensive blight, the use of inferior egg strains, and poor temperature control, which produced thread of "such inconsistent thickness and strength that it could not withstand the tension applied by modern weaving machines."[83] Beginning in 1932, the Silk Reform Association, consisting of China's largest silk manufacturers, established a set of standards that were then enforced by the Silk Control Bureau.[84] Simultaneously, central and provincial governments attempted to transform local silk production to fight disease, rationalize the gestation/spinning process, and standardize of strain. They called for the sterilization of production facilities, the institution of expert supervised collective farming, and the uniform use of superior government-produced strains. Anticipating resistance from peasants, the provincial governments began by setting up model districts, which would communicate to peasants in the surrounding areas about the benefits of the reform effort (figure 2-3). In the model districts, teams were sent around to disinfect all production spaces, to organize collective expert-supervised production, and encourage

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[82] Zhongguo jiaoyu dianying xiehui, *Zhongguo jiaoyu dianying xiehui huiwu baogao* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1934), 14

[83] Terry M. Weidner, "Local Political Work Under the Nationalists: The 1930s Silk Reform Campaign," *Illinois Papers in Asian Studies vol. 2* (Urbana, IL: University of Illinois Center of Asian Studies, 1983), 68.

[84] Weidner, 70.

and later mandate the use of government eggs.[85] While the first two campaigns met mixed results, usually contingent on the cooperation of local elites, the third led to outright resistance. While discouraging the use of indigenous strains, the provincial governments were hard pressed to produce and distribute government eggs in large enough quantity to compensate for what had just been made illegal; moreover, the eggs sold at higher rates, often outside peasants' price ranges. Meanwhile, the market for indigenous eggs was driven underground. With diminished quality, they sold for dirt-cheap for peasants unable to afford the higher quality sheets. When the state outright banned the eggs in certain model districts, peasants rioted and burned down the collective facilities.[86] It was amid these conflicts resulting from "peasant superstition" that Mao Dun wrote *Spring Silkworms* in 1932. Although intending to satirize Old Tongbao's preference for the "standard strain" over the "foreign strain," Mao Dun entered into the traditional peasant's colloquial vocabulary, thus obscuring the State's own modernizing terminology, in which "foreign strain" was in fact a "national strain," the result of Japanese scientific breeding adapted to save the industry. The film repeated Mao Dun's heterodoxy and continued to frame the conflict as one between the domestic "standard" (*zheng* 正, which also means, "proper" "upstanding" "correct") and its foreign competitors. In shot 2h/2i the conflict is already apparent at the level of visual organization. Whereas the "standard" sheet collects its eggs in a haphazard circular pattern near its center, the "foreign" sheet presents a grid, with eggs forming individual circles in each of its squares. As is demonstrated in the Jinling University educational

[85] Weidner, 73.
[86] Weidner, 74.

Figure 2-3 Exhibits at the Jiangsu Provincial Sericulture Experimental Station. Source: "Jiangsu shengli cansi shiyan chang sheying," *Jiangsu jianshe yuekan* 4.2 (1937).

film *Silk* (*Cansi* 蚕丝, Dir. Pan Denghou, 1935), this visual organization results from a quality control process in which each silk moth is inserted into a compartment of a gridded rectangular box, such that its eggs could be separated from the others (figure 7a). Each box is then tested for peprine, the protozoa responsible for blight. The eggs laid by infected moths are then excised from the sheet; a new square of healthy eggs is pasted over it. Unlike in the indigenous reproduction of silkworm egg sheets, the scientific breeding process individualized the biological process and hence rendered it manipulable at a microcosmic level.

I elaborate on the last point in my reading of *Silk,* which offers a point of comparison to *Spring Silkworms,* not only at the level of address but also in terms of its

image components. *Silk* was one of the first films shot as the result of a commissioning arrangement between Jinling and the National Educational Cinematographic Society, which funded its production from the proceeds of the theatrical screening program in Nanjing. In shooting the film, Pan Denghou sought the technical cooperation of Silk Control Department in Shanghai, the Huaxin silk filature, where the film's production sequences were shot, and university's own college of agriculture and forestry, which likely provided factual consultations and the lecturer who appears in the film's first third. Pan, a professor of chemistry and physics in the School of the Sciences and former advisor to would be director of the audiovisual department Sun Mingjing, would soon leave the University to take up a post in the Ministry of Education as a secretary for the newly erected Film and Radio committee.[87] At the end of 1936, the Ministry would oversee the construction of a nationwide educational film and radio network organized at the provincial level, in which the film *Silk* was frequently screened (this will be discussed in the next chapter). Meanwhile, Sun Mingjing would take up the production educational films at Jinling University, shooting films on industrial topics such as coal, embroidery, soy sauce, pottery, and animal fertilizer, as well as a large number of films on Chinese geographic landmarks. My reading of *Silk* seeks to establish a model for analyzing the subsequent films.

Silk is contained in one reel of 16mm film, running at roughly twelve minutes.[88] It is organized into three sections. In the first, a lecturer demonstrates the anatomy of a

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[87] "Dianhua jiaoyu chuchuang yu qi chengguo," *Dianhua jiaoyu yanjiu* 5 (2011), Web. Pan would go on after 1949 to work in the Academy of Light Industry.

[88] The version of the film I am working with was found with English intertitles at the United Board of Christian Higher Education in Asia archives at the Yale Divinity School. It is possible that some scenes from the original have been excised from this version, but this is unlikely given

silkworm with a scale model. In the second, female workers wearing white coats pick mulberry leaves and care for the worms through their gestation and cocooning. In the third, technicians breed and inspect the eggs of the moths according to the aforementioned process. In the second and third sequences, the presence of the lecturer remains apparent; a hand with a pointer periodically reaches into the shot to point out details, which are then identified by intertitles; diagrams sometimes appear to elaborate the actions that are being filmed. The lecture sequence is, in turn, prefaced with a brief close up of live silkworms over a pile of mulberry leaves, as if to establish the reality of which the model is to be a representation. The first section thus defines the film's mode of address and the parameters of its subject. Unlike the "fond memories" of the 1933 silkworm film, the classroom scene in the 1935 version is operative rather than elegiac. A static camera frames the three-foot scale model above a table (7b). A lecturer dressed in a black gown, whose shoulders and head are cut out of the frame, picks up the model and begins showing us the worm's head, feet, spiracles (breathing pores), digestive system, and silk glands. Placards stand next to the model to name each part that is being shown; although the lecturer stays in one place, the demonstrations are separated by a cut in order to facilitate a change of placard. Occasional close ups – one of the mouth, one of the spiracles, one of the digestive tract, and one of the silk glands – pepper the mostly static image. The effect is like that of a series of jump cuts, with a jarring quality that nonetheless impresses the viewer with the links between name and part (as it may be, it is this very inattention to continuity that suppresses distraction and emphasizes study). The sequence also establishes the film's intended tenor and subject parameters. Faceless, the

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that the 1946 catalog identifies the film as being 400 feet in length, that is, the standard one-reel/12 minute runtime for a Jinling educational film.

lecturer is reduced to a deictic function, furnishing the link between text and image. The scale model, in turn, enables analytical breakdown of the silkworm to its anatomy. The anatomical exposition also draws attention to epistemological priority of the worm as a biological rather than an agricultural organism: more than a human interface for the production of silk, it is a life form in its own right, with an internal organization and a life cycle. The organization of the rest of the film reflects this interest, which is not disinterested but hooked up to eugenic efforts to improve the strain for sericultural purposes. The second section begins with a shot of a gridded sheet of eggs and marches through the process hatching, feeding, molting, and cocooning, this time attended by multitudinous workers in white coats rather than the motley of peasants in dark gowns (whether the experts Mingxing corporation invited for their own "technical cooperation" wore white coats we will not know). Transitioning between the second and third sections, the film depicts in close up a silk moth breaking out of its cocoon (7c), then a large sheet of moths mating (7d). In the sericulture process that produces silk, cocoons are cooked in high heat in order to kill the moth before it has the chance to break the continuous strands of its dwelling. Only a small portion is allowed to live in order to breed the next batch of eggs. In depicting the process from the breaking of the cocoon to the laying of eggs, *Silk* glimpses the semi-autonomy of the silkworm life cycle from the sericulture process; it sees the worms as a scientific "whole" that does not simply go to market as a commodity, but constitutes the basis for reproducing the production process itself (under carefully monitored conditions). The sheet at the beginning of the second section thus forms a circuit with the sheet a lab worker repairs in the film's final shot (7e); such a circuit is by no means purely biological but an assemblage of human, architectural, and

technoscientific components. Some components, being technologies of vision and visualization, are imbued with a privileged relationship to the cinematographic apparatus; they double the film's own gaze yet divert it to distinct purposes: education and quality control. Others, architectonic and manual, become the frameworks and instruments for visual expression respectively. We have already seen how the lecturer's hand expresses the passage between text and scale model, framed within the austere rectangle of the demonstration table against a background of dull brick. It is a schoolhouse lecture, but unlike a classroom, everyone gets a front seat and all distractions, including the teacher's face, are cut out. It will be prudent to keep watch for permutations of this ensemble as we approach the second and third parts of the film.

Seriality (II): The Mulberry Grove, Hands, Boxes

The film's second and third parts were shot at the Huaxin silk filature located in Wuxi, a major silk city in Jiangsu province, neighboring Shanghai and Suzhou (given the same dull brick, it is likely the first was as well). After the hostilities of January 28 ended, Wuxi was the first to resume silk production, however at radically reduced capacity.[89] Mao Yifeng, a visitor to the plant in 1932, found its facilities and management to be top notch, a "superb model that deserves the attention of all the other [silk] works in this country, and all who want to build one."[90] Setting Huaxin off against a background of rural recession and peasant discontent, Mao praised it for its modern equipment, scientific management, and well-trained employees.[91] The all-female workforce, recruited at a young age, in particular caught the visitor's attention. Describing the workers as

[89] Mao Yifeng, "Canguan huaxin zhi si yang cheng suo yi lai," *Fangzhi zhoukan* 2.25 (1932), 670.
[90] Mao, 671.
[91] Mao, 670.

"innocent, lively, tidy and refined" (*tianzhen huopo, zhengchi xianjing* 天真活泼，整饬娴静), he lauded management for its scientific methods, which determined pay grades based on demonstrated skill and partitioned the worker's day into an "entirely regularized regimen."[92] When Pan decided to film *Silk* at Huaxin in 1935, it was undoubtedly because it remained a model facility, with high exhibition value. The Shanghai silk control bureau likely also had a hand in providing the needed letter of introduction.

At the opening of the second section, two white-clad workers flank the circular basket, where the newly hatched worms are collected (7f). The background is a wall of brick, cut at the top with a horizontal window ledge. In the next shot depicting the women going to gather mulberry leaves, the building to which this brick wall might belong is shown in the background, centered as an anchoring point on the upper right third of the image (7g). Streams of workers pass through the shot, into the gate, toward the mulberry patch, but the camera stays for a moment after they have left the frame. In the next shot, the camera pans left as the highly visible formation of white coats makes its way to the mulberry grove, followed by a man, barely visible in his dark outfit, shouldering two baskets (7h). The pan, which situates the horizon on the bottom third of the screen, continues past the human figures into the landscape, only stopping once it has passed a small tree, which provides the viewer with a picturesque moment (7i). The movement is continued, however, in another leftwards pan, now at a closer distance, which shows the backs of the women picking mulberry leaves, roughly evenly spaced (7j).

[92] Mao, 670.

Despite all efforts at objectivity, the mulberry sequence is heavily charged with its references to cinematic, poetic, and pictorial traditions. Not only does it depict workers entering the factory (in opposition to the Lumière *actualité*), the "factory" in this case is the mulberry patch, the premier *topos* for romantic poetry.[93] Being traditionally a place where unmarried girls would labor out in the open, the mulberry patch was a site of amorous possibility. Recycled as trope in the Chinese literary imagination, the very mention of mulberry trees became unavoidably suggestive. The mulberry sequence in *Spring Silkworms* for example, depicts villagers facing the camera, framed by leaves, and bathed in single point lighting meant to simulate the moon (7k). The sequence would lead to a brief bout of flirting between Ah Duo and one of the village women. In the Huaxin silk filature, however, mulberry picking was all work and little play. Male figures follow invisibly in the background as the brightly clad women pick leaves, evenly spaced, backs turned against the camera and without a doubt under management's supervision. Pan Denghou's cinematography captures this in its steady leftward panning, which registers the serial character of the labor; in turn, the workers' efforts cause the trees to sway on the top third-line of the screen (another allusion to the history of cinema). At the same time, however, the pans also express his interest in landscape, always framed according to the rule of thirds, which lends the sequence a slow-paced idyllic feel, allowing the viewer to suffuse the scenic beauty (I will further discuss the crossover between landscape and industry in chapter 4). Here, the film seems to repeat Mao Yifeng's

[93] In his film *Arbeiter verlassen die Fabrik* [Workers Leaving the Factory] (1995), Harun Farocki ponders the implications of the Lumiere short for the tradition of entertainment film, in which there was so rarely depictions of work. Vinzenz Hediger and Patrick Vonderau suggest that the starting point for thinking the industrial film has to do with what happens when that outwards flow is reversed. See Hediger and Vonderau, "Introduction," *Films that Work,* eds. Hediger and Vonderau (Amsterdam: Amsterdam University Press, 2009), 9.

oscillating description, on the one hand emphasizing the lively figures of the girls while, on the other attributing it to the thoroughgoing scientific character of their training and management. If we were to compare *Silk*'s steady leftward panning with *Spring Silkworms* individualized and self-compensating camera movements, one finds in the first a different negotiation with the exchange value of movement; rather than registering in each exhibit a slight shock, the false continuity between the two pans creates a scroll painting effect that equates the mathematical sublime of rationalized production with the serene expansiveness of landscape. Neither the horizon nor the work ends, a sentiment that is also apparent in the next sequence where four women are depicted behind a long table chopping the mulberry leaves into small pieces (7l). The workers on both sides of the frame are partially cut out, gesturing towards indefinite extension. The mulberry leaves are stacked on the table; the workers take sizable head-sized bundles, which they cut with large cleavers. We are far away from the domestically enclosed portrait depicted in shots 2a-c. Whereas in the close-up of shot 2b, the mother carefully brings the knife down on a small handful of leaves, in 7l, the workers vigorously chop at quantities that exceed what their hands can feasibly grasp. The hand is thus given to a different function, that of stabilizing and directing an industrial process rather than the grasping, caressing, and possessing which are still apparent in 2b. One could make a similar observation about the nature of manual labor in the film's third section, where a lab technician places moths into a gridded paper box for testing (7m), which are then unloaded into larger boxes by other technicians, suffused with water (7n), and examined one by one with microscopes (7o). The labor remains manual insofar as it involves the hand, yet the hand no longer molds or creates but translates between the environment and pre-established

frameworks of intelligibility, which in turn enable precise technology-assisted inspection and sorting. There would appear, then, a fundamentally similarity between the work of the technician's hand and that of the lecturer's in shot 7b. Both are dedicated to translating processes that exist well outside of their individual control or even comprehension, one being the process of learning, the other, of silkworm breeding. Before we can be too secure in this analogy, however, it is imperative to revisit the film's apparatuses of vision.

Seeing

Pan Denghou shoots the technicians at their microscopes (7o) with a rightwards pan, in what has now become a familiar technique of serialization, which expresses simultaneous equivalence and multiplicity. The technicians' attentions are focused on the careful transport of sampling spoons from the specimen boxes to their microscope slides. The object of their attentions is soon depicted in the following shot-reverse-shot sequence, which begins when a single technician, framed centrally in medium shot, looks into her microscope (7p). The audience is given a series of reverse images through the microscope lens (which are likely projected demonstration slides), first an image of dispersed cells, second of the same cells with a red circular outline in the middle, and third a close-up image of an ovular single-celled organism that can be surmised to be the offending protozoa (7q-s). Sequence 7q-s parades the three slides without reverse shots, thus immediately dispelling any interiority the earlier SRS may have created and propelling the spectator back to the classroom, where the images may have been projected from a still projector. The next shot returns us to the technician, who rinses the slide and loads it with a new sample. In mid-rinse, she glances up at the camera and smiles (7t). As she

loads the slide, her eyes return to the viewfinder. The next shot (7u) fakes the continuity, showing us a close-up of the gridded egg sheet which is being held by a hand—that of the lecturer that we have seen in 7b. Another hand points to individual egg circles on the sheet, which the next intertitle implies are infected. In the film's final shot, a technician cuts out the infected squares, pasting on them healthy ones (7e).

The woman's casual glance at the camera provides the key to the entire sequence. Whereas the methodical sorting evinced in the quality control work bespeaks the conscription of the hand and the eye to a rationalized process of movement and vision, the camera's presence introduces an excessive dimension. As non-professional actor, the lab technician does not *not* look; and when she does her glance breaks the glass separating representation from the represented, introducing into the carefully gridded process an unpredictable element, a sliver of chance that is inseparable from the act of display. She is *on display* even as her work involves her in a certain voyeuristic intimacy with her objects, given in the SRS pattern of the editing. Yet the sequence also makes clear that what she is seeing is *not* what we are seeing; the latter constitute not the substance of her vision but the surface of diagrams meant for the spectator alone. In between the SRS pattern and the false excessive diagram shots is the oscillation between the construction of cinematic interiority and a parade of equivalent images (like in *Water Hygiene*). The camera's vision is distinct from the modes of seeing and being seen involved in the quality control process, yet the two enter into communication, a dance. Returning to other parts of the film, one notices a similar dynamic. While the women are feeding the worms with mulberry leaves, a supervisor wearing a wool suit stands in between them, paying close attention the process (7v). We will not know who he is,

whether he is from the silk control bureau or simply one of the company's supervisors, adjusting pay ranks based upon what he sees. In whatever capacity he is in all likelihood the interlocutor who leads the film team on tour. The camera cannot help but double his vision, yet this doubling does not repeat but differentiates. Returning to shot 7m we notice something substantial. At a certain point, as the technician transfers moths from the gridded cloth into the gridded box, a slight breeze passes through the image, lifting the sheet slightly into the air (7w). Looking to the right corner of the image, we notice the dull bricks. The sequence is being filmed outside. For the sake of natural lighting, the technicians have brought their tightly controlled process into the open and exposed it to the elements, and thus the caprices of chance.

We end on a freeze frame. But the projector will keep running. A general problematic has occupied the foregoing pages, which portray cinema as unreliable witness to the push and pull between control and chance, representation and time, process and market. Along with the discourses *of* cinema, discussed in the last chapter, the individual films I have treated here present different ways of limning the thresholds that determine the visibility of industrial processes, walking the tightrope between use-value, exchange-value, and exhibition. In both *Silk* and *Spring Silkworms,* chance and excess are situated both in the depicted subject—the discordant temporalities of market, biology, and production—and in the act of educational display itself. As interfaces, both show a certain degree of unworkability, since they do not allow the spectator to witness process without witnessing the act of witnessing. If the state found cinema to be an important instrument to produce the effect of industrial potency and coherence, to aestheticize the state, the films themselves were less self-confident. Uneven development seeped through

the pores of the very cinematic presentations meant to combat it. Whereas *Spring Silkworms* sought out the model of the exhibition and the fair, in which it was a timid witness, *Silk* took the forms of visibility attendant quality control as its signpost, only to lose control in the act of exhibition. In both, then, movement invokes an ether in which objects cease to be what they are, where suddenly the carefully arranged display is put in contact with vertiginous depths of the optical unconscious.

But we have yet to admit that neither *Silk* nor *Spring Silkworms* stand as monuments. They are documents in a series. In actual an exhibition context, *Silk* did not form a closed structure of enunciation. Contained in a single reel and running at twelve minutes, the film offered itself as part of many permutations, to be transported to remote places and screened as part of multi-reel program. Moreover, it was narrated by a lecturer (who doubles the lecturer on screen) and often interspersed with review sessions and gramophone recordings. Despite its pretension to narrative fiction, *Silkworms* also may only be considered as part of a series, hemmed in, on one hand, by an increasingly prescriptive public discourse, and on the other, by the history of world cinema, which provided filmmakers with the idioms necessary to organize sensory perception. I reserve the questions of exhibition and distribution for the next chapter. In the one after, I revisit the vertigo of exhibition value, except now under the sign of global war.

Chapter 3 Infrastructure as Metaphor: Electrified Education, Literacy, Ether

于是我们靠着词，使我们从特殊走上普遍，在个别情境中打下了桥梁；又是我们从当前走到今后，在片刻情境中打下了桥梁.

(We rely on words to go from the particular to the universal, establishing a bridge into each specific situation. This also allows us to go from the present to the hereafter, to build a bridge into the immediate moment.)

- Fei Xiaotong[1]

But the bridge, if it is a true bridge, is never first of all a mere bridge and then afterward a symbol. And just as little is the bridge in the first place exclusively a symbol, in the sense that it expresses something that strictly speaking does not belong to it. If we take the bridge strictly as such, it never appears as an expression.

- Martin Heidegger[2]

名不正，则言不顺；言不順則事不成.

(If the names are not rectified, speech will not accord with reality; when speech does not accord with reality, things will not be successfully accomplished.)

- Confucius[3]

[1] Fei Xiaotong, *Xiangtu zhongguo* (Shanghai: Shanghai shudian, 1991), 9
[2] Martin Heidegger, "Building and Dwelling," trans. Albert Hofstader, in *Basic Writings Revised and Expanded Edition,* ed. David Farrell Krell (New York: Harper Collins, 1977), 355.
[3] Confucius, *Analects: With Selections from Traditional Commentaries*, trans. Edward Slingerland (Indianapolis: Hackett Publishing, 2003), 139.

In 1947, the leading Chinese periodical on educational media *Dianying yu boyin* 电影与播音 (Film and Radio) changed its name to *Yingyin* 影音 (lit. Sight and Sound, although the English title remained "Film and Radio").[4] In an article published in the first issue of the renamed magazine, the editor-in-chief Sun Mingjing offered a complex justification for this change, with which he hoped to popularize a new set of terms. On the one hand, he suggested, the media discussed in the journal exceeded film and radio *per se*, and included older techniques such as magic lanterns and shadow puppetry, as well as newer technologies such as filmstrip projectors and television. In Sun's estimation, the new education should be called "sight and sound education" (*yingyin jiaoyu* 影音教育), which would be the equivalent of what in the United States went under the name "audiovisual education." The latter term, rendered in Chinese as *shiting jiaoyu* 视听教育 did not sufficiently differentiate new audiovisual techniques of instruction from traditional education, which also involved seeing and hearing. Meanwhile, the current popular word for film and radio work—"Electrified Education" (*dianhua jiaoyu* 电化教育)—was misleading, since "electricity is the key component of neither [film nor radio]."[5] To call education with electrical aids "electrified education" would be the equivalent of calling teaching with a chalkboard "chalkboard education" or with books "book education," Sun observes.[6] *Dianhua* 电化 was, after all, a modifier for "education," whereas *yingyin* could stand on its own, irrespective of the enterprise in which it was used. Moreover, the proliferation of terms in Chinese that used "electricity" as a

[4] The change in appellation had come out of an ongoing terminological debate, which had reached a crescendo at a Film Fellowship Society meeting in September of 1946. See "Yingyin jiaoyu zhengming bian," *Yingyin* 6.7-8 (1947), 118.
[5] Sun Mingjing, "Yingyin yu dianhua jiaoyu," *Yingyin* 6.1-2 (1947), 22.
[6] Sun Mingjing, "Yingyin yu dianhua jiaoyu," 23.

modifier—cinema as "electric shadow," light as "electric light," streetcar as "electric car" etc.—was symptomatic of a broader developmental mindset. "Owing to China's low scientific level," Sun observed, "average people are thoroughly mystified by electricity, thinking that it was omnipotent, and thus would no doubt believe in any kind of 'electrified' education as a divine remedy."[7]

In a letter to the editor postmarked from Columbus Ohio in November, the educator Du Weitao, in the midst of translating Edgar Dale's *Audio-visual Methods in Teaching*, voiced his disagreement with Sun's choice.[8] *Yingyin,* he observed, carried a set of inauspicious resonances in the Chinese literary tradition. "Chasing the wind and clutching at shadows [*bufeng zhuoying* 捕风捉影]" and "The sound [of footsteps] in an empty valley' [*konggu laiyin* 空谷来音]," are "easy to ridicule," wrote Du, as the former connoted empty evasive, rhetoric, while the latter meant something wonderful yet hopelessly rare.[9] While preferring the direct translation from English—*shiting jiaoyu*—Du argued that *dianhua jiaoyu*, or "electrified education," was sufficient, having the advantage of already being in habitual use. "There are many nouns that lack rational basis," he writes, since "when people become used to it they come to understand its meaning."[10]

Yingyin published excerpts of Du's letter under the column "The Sight and Sound Rectification Debate," followed by a critical letter from Shu Xincheng of the influential

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[7] Sun Mingjing, "Yingyin yu dianhua jiaoyu," 22.
[8] See Edgar Dale, *Audio-visual Methods in Teaching* (New York: Dryden Press, 1946). Translated as Edgar Dale, *Shiting jiaoxue fa zhi lilun,* trans. Du Weitao (Beijing zhong xian tuo fang ke ji fazhan youxian gongsi, 2012).
[9] "Yingyin zhengming bian," 118.
[10] "Yingyin zhengming bian," 118.

Zhonghua publishing house, and, finally, the editor-in-chief's long response. The latter opened by observing that *shiting jiaoyu* could be construed to connote "to look but not see" [*shi er bu jian* 视而不见] and "to listen but not hear" [*ting er bu wen* 听而不闻], and was thus open to the same types of ridicule. Moreover, the poetic resonances that came with *yingyin* were, indeed, accurate, insofar as "chasing wind and clutching at shadows" could well describe an open-air film screening in "the mild breath of spring wind," and "the sound of footsteps in an empty valley" was akin to "entertaining oneself with the wireless to in the loneliness of a mountain abode."[11] Sun laid out criteria for evaluating nomenclature—rationality [*heli* 合理], versatility [*quanbian* 权变], commonality [*tongsu* 通俗], and independence [*duli* 独立]—arguing that *yingyin* was the only word that satisfied all four.

The debate over the rebaptism of "electrified education" was but the most contentious of the many efforts to standardize the terminology used in audiovisual instruction in the postwar era. At a Society of Educational Research conference in June of 1948, attended by Sun Mingjing, Shu Xincheng, and others, it was agreed that, for example, "still picture" (*jingpian* 静片) should be used over "magic lantern," "moving picture" (*dongpian* 动片) over "electric shadow" (*dianying* 电影), and "sound disc" (*yinpan* 音片) over "singing disc" (*changpian* 唱片).[12] Although contemporary usage will attest to the futility of such terminological reforms, the *Yingyin* journal stuck to them

[11] "Yingyin zhengming bian," 118.
[12] Zhu Jing, *Yingyin jiaoyu yu zhongguo zhi lu tanyuan: guanyu zhongguo zaoqi dianhua jiaoyu shi de lijie yu jieshi* (Tianjin daxue chubanshe, 2009), 60.

rigorously under the belief that the "rectification" of language would result in more rational and scientific approaches to the use of educational technologies.

The instability of terminology is a persistent feature of discourses on new media, attesting to the dispersive relationship between technology and language systems. Here, terminological volatility is compounded by the complex weaves of what Lydia Liu calls "translingual practice," in which the "crossing of analytical categories over language boundaries…is bound to entail confrontations charged with contentious claims to power."[13] As the terms of the "rectification debate" suggest, at stake were complex webs of denotation and connotation, surfacing problems of translation, logic, syntax, usage, and literary history. The journal's reference to the Confucian practice of *zhengming* 正名, or the rectification of names, evinced the degree to which the process drew on both modern social scientific compulsions and ancient conceptions of the governmental art. Positing the rectification of names to be essential to the smooth flow of discourse and thus success in the affairs of state, Confucius placed denotative clarity at the center of the effective utilization of social hierarchy (which passed from names, which were written down, to speech, and then to "things").[14] Du Weitao's response appealed, however, to a differing conception of language, drawn from the American tradition of pragmatics, where, as Charles Sanders Peirce laconically put it, "What a thing means is simply what habits it involves."[15] Despite, or indeed because, of electrified education's unruly connotations, the term had achieved currency among the world of educators, referring to

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[13] Lydia Liu, *Translingual Practice: Literature, National Culture, and Translated Modernity—China, 1900-1937* (Stanford: Stanford University Press, 1995), 7.
[14] As seen in the epigraph.
[15] Charles S. Peirce, "How to Make Our Ideas Clear," in *Chance, Love and Logic: Philosophical Essays,* ed. Morris Cohen (Lincoln NE: University of Nebraska Press, 1998), 43

a specific set of practices that had been developed over the past decade. It was with this in mind that Shu Xincheng, in his 1948 *Lectures on Electrified Education*, claimed "electrified education" to be a uniquely Chinese practice.[16] Ultimately, Sun failed to change the appellation as national events caused the journal's publication to cease in 1948. "Electrified education" went with the Guomindang to Taiwan, while reference to it ceased in the mainland for decades, where the state adopted a Soviet-inspired lexicon for all things relating to cinema and radio. When the practices associated with it were resuscitated in the early-1980s, Sun, recently rehabilitated from being a Rightist, grudgingly accepted the term "electrified education" for his work.

Technical nomenclature exhibit a double structure distinct from naming as such, since technical terms, while necessarily referencing singular objects, also delimit classes of objects by means of their coexistence with other terms. What is of particular interest in the "rectification" debate I have cited above is the degree to which the differing terminological options emphasized either referentiality based on habitual usage, or alternatively the capacity of the signified to map onto a referent. For Sun, the unruliness of electrified education—along with other Chinese words such as *dianying,* which reduced modern contraptions to their electrical substance—stemmed from the confusion of meaning and reference, depriving terms of their logical function by making them spiral out into a network of jumbled metonymical associations. Yet as Du and Sun's pedantic exchange on *shiting jiaoyu* and *yingyin jiaoyu*'s literary antecedents shows, no term is exempt from the metonymical network, as language necessarily exists in the disorderly webs of usage mediated by writing. What is decisive, however, are the thresholds at

[16] Shu Xincheng, *Dianhua jiaoyu jianghua* (Shanghai: Zhonghua shuju, 1948), 25.

which words take leave of their old referents to delimit new objects, entering into new circuits of figurativity both large and small. The "broad" and "narrow" definition of the educational film exemplified this phenomenon: the larger the circuit, the more blurry the object, to the point of becoming Literature (as in Lu Xun from chapter 1), where language separated from the demand of operativity is allowed, if momentarily, to enter into a more playful yet no less serious state. Such play also hovers at the margins of more instrumental discourses, particularly those that seek to lay claim to unstable assemblages. If, as I have shown in the previous chapters, the broad and narrow definitions of the educational film mediated the frictions between educational institutions and cinema as a technology inevitably bound with the volatility of capital, the term "electrified education" comprised another unstable assemblage preoccupied with the interstitiality of national space. Consisting, on one side, of specific practices of film, radio, magic lantern, gramophone, and amplified lecture, and on the other, of a technoscientistic obsession with electrical power as an ethereal life force, the intelligibility and attraction of *dianhua jiaoyu* folded into problematics of infrastructure, mass literacy, and war.

In this chapter, I situate the educational film within the network of hyperbolic and technically specific statements that were used to define electrified education. In hands of the educationists (that is to say in their statements, their plans, and their diagrams), cinema was a recalcitrant instrumentality, one that transformed the myriad cultural, economic, and social, and political questions of China's developmental asymmetry into something that could be approached in logistical terms. Gesturing, on the one hand, at the utopian expectation that audiovisual technologies could one day replace writing, electrified education discourse nonetheless reintroduced problems of uneven

development in the disjunctive relationship between images and their verbal intelligibility. As a technoscientistic discourse—that is, a discourse that deals with technologies in broad allegorical terms—electrified education fed into speculations about ether as well as the manifold crises of literacy promotion, which were indelibly linked to questions of infrastructure development and speed. At bottom, the appeal of audiovisual aids for Chinese practitioners was their ability to displace the problem of language—that the dispersiveness of modern Chinese writing, dialect, speech and thinking—into a logistical register, which became inseparable from the circuitry of war.

Electrical Ether

At a 1936 two-week training of film and radio operators held in Nanjing, Jiangsu governor and political heavyweight Chen Guofu addressed the class with an elegy to electrical power that resounded strongly with the superstitious connotations Sun had complained about in his 1948 essay. Decrying the "shamans" (*yinyang shi* 阴阳师) of Chinese "metaphysics" for using gods, divinatory trigrams, fortunetelling, face reading, and geomancy to deceive the people for thousands of years, he celebrated the arrival of the "shamans of science," who "used the *yin-yang* principles of electricity to control all of humanity," destroying the "incorrect thinking of the past," and "assisting the nation and humanity in their search of happiness and the development of the electrical industry."[17] In his more enthusiastic moments, Sun Mingjing himself did not shy from making claims of a similar magnitude, however here with the addition of a crucial distinction. In a 1945 essay on the use of audiovisual implements in the reconstruction of

[17] Chen Guofu, "Dianhua jiaoyu de zhanwang," *Minzhong jiaoyu tongxun* 6.7 (1937), 1.

the Western frontier province of Xikang, Sun defined the term "electrified education" in "material" and "spiritual" terms. Materially, electrified education consisted of using film and radio in teaching, which held many benefits, such as the ability to attract the interest of viewers and listeners and the capacity to "arrange the old and the new in order so that the student may make their own inference."[18] Spiritually speaking, however, electricity was vitality. "If we were to turn the word 'electricity' into an adjective it would mean lively, fast as lightning," he writes, and electrified education was a "living education."[19] Reiterating a May Fourth distinction that pitted a "dead" classical Chinese to a "living" vernacular (discussed below), Sun thus opposed "stiff" books to "living" electricity, yet in the next sentence it would become apparent that electricity was not the source of life. Citing those who complained that pocket filmstrip projectors presented "dead" images, Sun emphasized that all electrified education tools needed to be handled with "flexibility and vivacity": "when showing the filmstrip, the commentary must read in a lively fashion, with added explanatory interludes so that the audience will understand. There must also be a rhythm. Speed over what they already understand, so that the audience doesn't get weary. Spend more time on what they don't yet understand, or on particularly beautiful images, so that they may be better appreciated."[20] The reversal, in which the lecturer becomes the source of life in place of the machine, is evidence of a broader problematic that occupied the educational practitioners and their political supporters. As a discursive practice, "electrified education" acquired its consistency based on the relationship between words and things, of words that went beyond the things to which they referred,

[18] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," *Dianying yu boyin* 3.7-8 (1945), 24.
[19] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," 25.
[20] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," 25.

of things that offered themselves as the support of words, and this grid of words-things formed a continuum between the discourses of the planners to the verbiage of the filmstrip lecturer. The "spiritual" dimension of electrified education, indeed, was premised on electricity's metonymical connotations, which at the same time were not entirely distinct from their "material" expression.

The "spiritual" dimension of electricity, interchangeable with both *yin-yang* principles and the human as interlocutor for electrically powered visual aids, cannot be understood outside the cross-cultural discourse network of technoscientism that pervaded both popular and reasoned discussion in the late-nineteenth and early-twentieth century. Coined by Bruce Clarke in his study of energy allegories in nineteenth and twentieth century Euro-American context, "technoscientism" describes the operation of allegory within scientific and technological conceptualization, a function that was continuous with the literary and popular imaginaries authorized by scientistic tropes.[21] Clarke's study focuses on the specific allegories of energy that offered rhetorical and ideological consistency for a world suddenly dematerialized by its encounter with invisible "imponderable forms" such as light waves, electromagnetism, heat, and gravity, which threatened to undo the stability of classical conceptions of reality and space. "Modern physics gained conceptual and technological purchase on the imponderable forms and phenomena of heat, light, gravity, and electromagnetism," Clarke writes, "not by seizing reality bare-handed but, to a significant extent, through *scientific* allegories, that is, by constructing and investigating as factual fictions increasingly workable models of

[21] Bruce Clarke, *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics* (Ann Arbor: University of Michigan Press, 2001).

energy."[22] Based on precise rules of usage, such factual fictions cannot be effectively distinguished from allegory as literary figure, since both construct "a series of literal and figurative equivalences and provides or implies multiple frameworks within which to read those systems of signs."[23]

As an "imponderable form," electromagnetism posed an epistemological challenge to the classical mechanics of the West, which saw nature "as material points, whose changes exist exclusively of motions"; it called instead, for the concept of physical reality "represented by continuous fields."[24] This shift, which early twentieth-century thinkers from Albert Einstein to Henri Bergson link to more fundamental disorientations of space-time in both ontic and ontological senses (relativity and becoming respectively), nonetheless did not introduce itself as an epistemological break. James Clerk Maxwell, credited by Einstein as having made possible the undoing of classical mechanics, found the need to square the emergence of differential field physics with the mechanistic paradigm in which he was working, thus developing a theory of ether as a "presumed universal medium" in order to ground what he saw to be the equivalence between magnetism, electricity, and light.[25] A "necessary fiction" for nineteenth century physics, ether thus offers, within the paradigm of mechanics, the fiction of an "absconded substance" on which magnetic, electrical, and light waves moved. Yet being entirely insubstantial, such a substance was allegorical in that it offered physics a "blank space

[22] Clarke, 18.
[23] Clarke, 18.
[24] Albert Einstein, quoted in Clarke, 96.
[25] Clarke, 100.

within space, a screen available for the projection of numerous theorizations."[26] Grounded in mechanical ether, Maxwell's empirically verifiable conclusions on the unity of electromagnetism and light set the basis of Hertz's studies on electromagnetic waves, which in turn gave rise to wireless communication.[27] Taken up, on the other hand, in a cultural and scientistic term by others, ether became the medium for a "theologized and divinely charged cosmos," a conception dispersed throughout late-Victorian discourses on energetic vitalism, which sought to counter the entropic destiny foretold by thermodynamics with a positive energetics.[28] In both "factual fictions" and popular manifestations, however, ether was taken up as an allegorical surface, a stopgap against the fact that the vibrating wave, taken in all its relativity and diffusive tendency, was too terrifying to think in itself; as such, it contained within it both blank absence and theological presence, twin terms that underwrote turn of the century cultural crisis. "In the late-nineteenth and early twentieth century," Linda Henderson observes, ether was "the ultimate sign of continuity and signified a realm of continuous cohesion and diffusion, materialization and dematerialization, coursed through by forces and vibrating waves."[29]

As Weihong Bao has shown, ether took up a similar role in Republican era China, offering a model for theorizing discourses of intermediality by turning the space between

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[26] Clarke, 100.
[27] Clarke, 101.
[28] Clarke, 100.
[29] Linda Henderson, "Editor's Introduction: 1. Writing Modern Science—An Overview. II. Cubism, Futurism and Ether Physics in the Early Twentieth Century," *Science in Context* 17.4 (2004), 452.

uneven technical media into what she calls an "affective medium."[30] Ether or *yitai* 以太, introduced by Christian missionaries in the 1860s, was later taken up by late-Qing political reformists as a category for synthesizing Eastern and Western thinking.[31] In the thought of late-Qing political philosophers Tan Sitong and Kang Youwei, ether superimposes ethical categories from a variety of cultural traditions, including the of *qi* 气 (cosmic fluid) Chinese philosophy, the *ren* 仁 (benevolence) of Confucian ethics, the mercy of Buddhism, the Holy Spirit of Christianity, and the "attraction" of chemistry.[32] Yet, as Bao points out, unlike for Maxwell, ether was not "a neutral medium but as one endowed with heightened ethical dimensions as a potential social and moral force."[33] Specifically, ether, like *qi,* comprised the all-encompassing environment in which benevolence—the prized Confucian category inscribed by its logogram as "human" in the multiple—could operate, as laid out in the first three theses of Tan's 1897 *An Exposition of Benevolence* (or *Renxue* 仁学), a text that has often be germinal for the anarchist strain of late-Qing political thinking:

(1) The most fundamental meaning of benevolence is interconnectedness [*tong* 通]. The terms ether, electricity, and mental power all indicate the means of interconnection.

(2) Ether and electricity are simply means [*ju* 具] whose names are borrowed to explain mental power.

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[30] Bao, 139.
[31] Bao, 138.
[32] David Wright, "Tan Sitong and the Ether Reconsidered," *Bulletin of the School of Oriental and African Studies, University of London* 57.3 (1994), 553-4.
[33] Bao, 138.

(3) The meaning of interconnection is best expressed by [the phrase from Zhuangzi] "The Way unites all as one by means of interconnection."[34]

In Tan's discourse, interconnection, ether, electricity, mental power, and the Dao (Way), are laid out according to an overlapping yet distributed structure, taking on an allegorical function similar to what Clarke describes above. Importantly, however, ether and electricity are not taken to be foundational substances, but "means" (*ju*) whose names are borrowed to describe mental power (*xin li* 心力), whereas the latter also subsists as the "means of interconnection." Interconnection, in turn, remains itself a "means," immanently operated by the imponderable Dao, which unites at the same moment as it defies speech (as in the famous opening lines of the *Dao dejing*). Since at the constitutive level, "without an understanding of benevolence, names will cause confusion," Tan encourages his reader not to worry about the words, which are but interfaces for mapping that which is only inhabitable by ethical intuition.[35] As David Wright observes, Tan's sense of ether as a medium of interconnectedness diverged from the technoscientific neutrality of Western communication theories. Whereas the latter took the communication link as "indifferent to the ethical quality of the messages it carried," the former took it as a "positive good" that ensured that "mutual *ren* or benevolent attraction was transmitted by the all-pervading ether."[36] As Bao argues, the concepts of sympathy and resonance I have cited in Chapter 1 belonged to the same question as ether, since each operated as a charge over a pregnant interstitiality, "immanent and mediating, all

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[34] Tan Sitong, *An Exposition of Benevolence: Jen-hsüeh of T'an Ssu-t'ung,* trans. Chan Sin-wai (Hong Kong: Chinese University of Hong Kong, 1984), 61.
[35] Tan Sitong, 62.
[36] Wright, 556.

pervasive and intermediary in the meaning-production process."[37] For Bao, ether enabled Republican era intellectuals to describe the interstitial spaces between cinema, radio, print, and other media not as empty space but as a charged field of vibrations that went beyond the specific technical and institutional contours of each media format. Ether and its substitutes such as radiation, fire, electricity and energy, comprised the basis for widespread vitalist troping in the Chinese intellectual scene, emblematized by neoromantic poet Guo Muoruo's *opus magnum* "The Heavenly Hound" (Tiangou). The latter poem describes a mythical hound who "having swallowed the sun, the moon and all the planets…radiates with the light of the planets, x-rays, and the energy of the whole universe" while "burning like fire, screaming like the ocean, and running like electricity."[38] Turning the entropic emanations of the universe into an explosive *élan vital,* the heavenly hound offers, for Bao, a model of Republican era affective spectatorship.

The concept of "electrified education" undoubtedly participated in this technoscientistic affectivity, making use of ether's model of interconnectedness. Both Chen Guofu and Sun Mingjing's rhetoric—admittedly less contemplative than that of the late Qing political theorist—draw heavily on the notion of electricity as a vital force. The latter's charge is not only manifested in the projection of a screen image or radio voice, but swallowed up by human interlocutors—both the lecturer and the audience—and transformed into activity. "Electrified," in this context, does not draw its force solely from the generator that powers the teaching aid but also from the wider electromagnetic spectrum. Yet what appears unclear in Bao's exegesis on ether is the rhetorical specificity of energy allegories, which, as allegories, never refer to the same thing they signify. For

[37] Bao, 140.
[38] Bao, 142.

Clarke, the distinction between Maxwell's ether, which serves the regulated function of producing a neutral screen for scientific experiment, and the ether of Vitalism, which finds in it the presence of Life, is pivotal, since despite the fact that both traffic in figurative language, one allows for its metaphors to expand into metaphysical speculation, where reference is infused with Meaning, while the other delineates a fictional space of reference by regulating metonymy, thus producing the stage for an experimental physics that had yet to find its paradigm. Failing to make the distinction risks subscribing to the technoscientism one describes, where energy tropes take one's own discourse for a ride. While I have no desire here to defend hard distinctions between scientific ether and scientistic ether, I am interested in describing the threshold at which one turns into the other, the point at which narrow meanings become broad ones and words take leave of the things they are meant to describe.

Tan Sitong's Daoist reticence concerning names offers an entry-point for elaborating the distinction. Ether is, after all, there "for want of a better term."[39] It is telling that Tan offers a series of other words—mercy, attraction, Holy Spirit etc.—to name the unnamable thing, hence highlighting that he is indeed playing a rhetorical game, yet not one in which each term is the equivalent of the other. Thesis number 2, which demotes both ether and electricity to linguistic interfaces for mental power (the brain), is instructive in this regard, especially since in the paragraph where Tan expands on this thesis, one finds the opposite conclusion.

> The ether functions in its most spiritual and subtle aspect when it constitutes the brain in the human body… [the counterpart of which] is the electricity in the void

[39] Tan, 67.

> [空] for there is no object it does not permeate. The brain is one of its extremities and is electricity manifested in form and substance. This being the case, then electricity must be the brain without form and substance. We know that the cranial nerves connect the five sense organs and all the bones to function as one; we should also know that electricity connects heaven, earth, the myriad things, others, and self into one body. That is why when a thought emerges, whether sincere or not, it is seriously judged by ten hand and ten eyes, and when something is said, whether good or bad, people a thousand *li* away will react to it.[40]

In general, ether occupies a constitutive level, manifesting in the brain and electricity but not reducible to either. The analogy between electricity and the brain, thus, is not an analogy per se but rather a form of modal expression (in a sense that resonates astoundingly with Spinoza). The brain is a mode of electricity that organizes a body by connecting its sense organs and bones; meanwhile, electricity is the mode the brain takes in the "void," that is, when not actualized in a definite physical organization (*xing* 形). Yet, electricity also connects the brain to a broader nervous system of heaven, earth, things, and others, thus taking on an all-encompassing character. Nonetheless, electricity and the brain are not identical, despite the fact that one is a metaphor for the other. He continues:

> Those who are willing to learn must realize that electricity is the brain [*dianqi ji nao* 电气即脑]; that there is no place without electricity just as there is no place

[40] Tan, 69. Translation modified on consultation with Wright, 555. The Chan translation omits the symmetry of brain-body/electricity-void.

> without the self; if we wrongly think that there is a difference between others and the self, we will be non-benevolent. Nevertheless, electricity and the human brain are nothing more than manifestations of ether. As for ether itself, it leaves absolutely no room for differentiations, and so the terms 'electricity' and 'brain' cannot stand [*bu li* 不立]."[41]

What the translator has rendered with the English copula does not, in the character *ji* 即, suggest identity, but rather emphatic substitution, and indeed as the passage progresses the mutual exclusivity between electricity and brain become palpable. If the division between self and others is a fallacy spawning from non-benevolence (不仁), then the fact that one finds separately all-encompassing electricity and the self that houses that electricity as a brain is evidence that both terms, despite their metaphorical expansiveness, are inferior to ether, which "leaves absolutely no room for differentiations." Ether's ethical charge appears precisely insofar as it undoes the distinction between brain and electricity, self and other, in favor of benevolence as a utopian equalization. Later Tan describes those suffering from paralysis as "unbenevolent" since "their electric wires have been damaged and are no longer able to pass messages to the brain," thus causing their bodies to divide into "different regions."[42] The non-paralyzed body unified by a brain, should not, however, be confused with benevolence, since to do so would be to

[41] Tan, 72. Translation modified for 不立, which Chan renders as "cannot be justified"; mine is more literal; 立 although it has juridical valences, also means literally to "stand up."
[42] Tan, 73.

"erroneously differentiate ether from the cranial nerves, wrongly draw boundaries, seeking to benefit the self without helping others."[43]

The concept of benevolence as an undoing of differences resonates with the utopia celebrated by Kang Youwei's *Book of the Great Unity*, first delivered as a lecture more than a decade earlier in 1885. Kang, who envisioned a utopia where eugenics, social planning, and interracial marriage had neutralized all differences of wealth, race, and ability, also identified electricity with spiritual *qi*, suggesting that "lightning can be transmitted anywhere, and spiritual *qi* can make anything sentient [*gan* 感]."[44] While repeating similar claims, Tan's rhetorical movements complicate the identity of ether, brain, and electricity by gesturing at their contextual substitutability. The enigmatic second thesis that both ether and electricity are but "means whose names are borrowed" to describe mental power thus reveals its meaning, namely, that despite the superiority of ether as an ethical medium, from the perspective of the brain—that is, of the human interlocutor—both ether and electricity are metaphors for extending the power of thinking and feeling. Yet, such extended mental powers carried their own specific imbalance. "Mental power, when pushed to the utmost, is able to do virtually anything," Tan writes, "It is precisely this great ability of mental power that creates obstacles and dangers. The prosperity of natural science gives rise to more unfathomable principles; the prosperity of chemistry and electricity, to [the discovery of] more indistinguishable elements; the prosperity of medical science, to more incurable diseases; the prosperity of mathematics, to more unsolvable problems; and the prosperity of the arts of government,

[43] Tan, 73.
[44] Quoted in Wright, 565.

to more unavoidable corrupt practices. When the Way rises by one foot, the devil rises ten times more."[45] Considered in relation to mental power alone, electricity gives rise to new and larger problems; in this specific context Tan is thinking of the inchoate theory of relativity, which he, like many of the scientists he was reading, wished to discount at any cost. Hence the call for tracing mental power back to its roots in ether and benevolence, since to act "without examining where our mental power comes from" would be to tantamount to "using cunning [*xinji* 心机] to cure cunning [which] is like the simultaneous turning of axle and wheel, which only helps produce more disasters."[46] Electricity as a rhetorical figure in *Renxue* hence takes on different characteristics with respect to mental power, on the one hand, and ether-benevolence, on the other. Whereas in the former, electricity becomes a developmental project proceeding by internal crises; in the latter, it expands into an encompassing medium that, at its limit, dissolves the electricity/brain barrier. Like his reformist contemporaries, Tan sought to reconcile Western science with Chinese ethical foundations based on the famous "Chinese learning for substance, Western learning for use" formula. His refusal to differentiate between electricity and the brain, thus, was an ethical decision instead of a descriptive one, since only by such a refusal could he further expand mental power beyond the "cunning" of individual desires—built on epistemological partition—toward benevolence and the great unity. It was also paradoxical, insofar as his affirmation of Chinese "substance" was precisely the basis for his call to undo the boundary separating China from others.

[45] Tan, 194-5.
[46] Tan, 195.

Considered within this broad circuit of meaning, the "electricity" of "electrified education" thus wavers between the "cunning" of instrumental rationality and utopia as ethical decision. While the practitioners and theorists of electrified education were hardly close readers of *Renxue*, their discourse was marked a similar tension, functioning, on the one hand, as the "means" by which to connect mental powers to specific technical configurations, and on the other, as surfaces that allegorized the broader force fields of nation, world, and cosmos. The epistemological chiasmus of Tan Sitong's thinking, however, should be kept: the ethical calling of the ether, mediated by electricity as metaphor, is heard from the other side of the partitioned shell of the body (with its brain). As such, it appears as part of an allegorical game where the point is to not allow objects to solidify in the lens of discursive partition (or disciplinarity): the nerves *are* electric wires not because they are identical but because it would be unethical to admit the difference between neurology and electrical engineering.

The Electrical Grid

Modern civilization is the "age of electricity," observes Sun Yat-sen in his *Plan for National Reconstruction* (1917). As such, he notes, China should "try to use electricity rather than coal as an energy source."[47] On one level, such a misstatement by the national pater is glaring in its confusion of source and medium, a fact historians writing on this text have observed.[48] It nonetheless becomes more comprehensible in

[47] Quoted in William C. Kirby, "Engineering China: Birth of the Developmental State, 1928-1937," *Becoming Chinese: Passages to Modernity and Beyond* (Berkeley: Berkeley University Press, 2000), 141. Sun Yat-sen's discussion of electricity can be found in its most concentrated form in *Jianguo fanglue* (1917).
[48] Kirby adds a flippant "Just how Sun thought electricity would be generated is not clear." Kirby, 141.

light of the electricity-ether pair of late-Qing political philosophy, the contours of which Sun repeats in the context of a national development plan, where it could only appear as discursive disorder. Investing in electricity as a negetropic spiritual category, Sun was able to champion it while erasing the coal entropically burned to generate it. This was, in a large part, because the rhetorical energy derived from electricity came not from the burning of fossil fuels, but from its ability to engender nation as a decentralized network.

Writing on Soviet electrification, Emma Widdis suggests that beyond supplying power for modernization, the electrical grid offered a way to visualize the organization of national space, which had symbolic as well as infrastructural consequences: "as a unifying network, the power grid was to carry ideological as well as electrical energy."[49] National electrification, which Lenin hoped would bridge the gulf between town and village, supplied not only electric light but also enlightenment, and the *Plan for Electrification* was in fact to be kept at power stations and schools as instructional material. The program for electrification would serve not only as a rubric for development but also a platform for edification; the public was to participate in the visualization and the imagination of the grid, just as "all citizens would participate, symbolically and directly, in the achievements of the state."[50] Here, the electrical grid derived a supplementary power in the form of the image it offers of itself and the world; in other words, in its visibility, electricity as a *medium* for energy becomes a surface for *mediation.*

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[49] Emma Widdis, *Visions of a New Land: Soviet Film from the Revolution to the Second World War* (New Haven: Yale University Press, 2003), 24.
[50] Widdis, 26.

With the formation of the Chinese National Reconstruction Commission in 1928, an electrification plan as ambitious as Lenin's was put onto paper, describing "super-power stations" linked by high-tension transmission lines and supplying smaller local stations. Like with Soviet electrification, rhetoric outpaced output, and the reconstruction commission's plans for a national grid were quickly shelved in favor of the regulation of private enterprise.[51] In a 1930 article, Yun Zhen, one of the reconstruction commission's technical experts, describes participation in an electrical grid as emblematic of the "cooperative spirit" necessary for national development. Acknowledging individual power producers' reluctance to participate in a grid that reminded them of monopolistic absorption, Yun nonetheless chided them for not seeing the "big picture." The opening of factories, farms, and mines required "limitless, abundant, and inexpensive energy," "gigantic amounts" that "could not be generated by directly burning coal and channeling steam; nor, if we are speaking of electricity, can they be produced by plants that remain separate and do not communicate with each other."[52] With participation in a national or regional grid, rural areas (which used little electricity and were spatially dispersed, were highly unprofitable) could be electrified, correcting the "deformity" of rural-urban unevenness, subsequently reversing the influx of rural populations into the cities, which put pressure on public services and health.[53] Other benefits Yun cited included the reduction of capital costs, electricity costs, fuel usage, the wear on equipment, the increased viability of hydroelectric generation (which, with irregular outputs, required coal plants to balance it out), and the equilibration of loads. "The importance of the grid

[51] Kirby, 142.
[52] Yun Zhen, "Dianqi wang," *Jianshe yuekan* 9 (1930), 37.
[53] Yun, 38-40.

cannot be seen from the subjective vantage point of the electrical industry," Yun adds, "it must be seen from the standpoint of the whole nation's economic reconstruction."[54] Yun's invocation of a collective, national, perspective does not resound as a narrowly ideological demand. Although their chief purpose is providing energy, electrical grids are also communications networks. The output of each plant responds to voltage signals from other plants, thus compensating for natural and technological contingencies. The shift from the microeconomic to the macroeconomic vantage point was justified by the necessity to put power generators in communication with each other, with natural rhythms (hydroelectric power), and with social tendencies (rural to urban migration). If the electrical grid allegorized nation it was because the question of the electrical network forces one to look at the "big picture," that is, at the overall modes of social organization that structure the communication between parts.[55]

In "Engineering China: The Origins of the Chinese Developmental State," historian William C. Kirby re-envisions China under Guomindang rule not as an autocratic party-state but as a technocratic state, sustained by international technology exchanges and a class of engineers. Although putatively instruments of the GMD political elites, the effectiveness of the technocratic class was contingent on the maintenance of insular professional cultures, and were hence defined by their aloofness from the state's efforts to instill political norms and allegiances. At the same time, the technical class, by means of its instrumentality, lent the ruling powers "ethos of optimism,

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[54] Yun, 37.

[55] It was on this basis that Gilbert Simondon saw electrical networks as pivots between thermodynamic and information ages; "the very standardization of the conditions of energy production, which allows for the interconnection and normalized distribution, turns this energy into a source of information." See Simondon, "Technical Mentality," trans. Arne De Boever, *Parrhesia* 7 (2009): 7-27.

not describable or even rational in economic terms, that China could be remade physically, and indirectly economically, by the planned application of international technology under the leadership of homegrown scientific and technical talent."[56] As many historical studies have shown, statecraft in nationalist China (and indeed in the Mao-era as well) was defined in a large part by the conflict between the political elite and the technical class, the Party and the engineer. The planning of great infrastructural marvels, rarely accomplished due to political and financial inefficiencies, registered this conflict as a distribution of metaphorical circuits. Yun, a U.S. trained engineer who understood electricity rationally as a communicative network thus met the likes of Chen Guofu, who attributed it to "*yin-yang* principles," on the same ground, that is, in the differential circuits of infrastructure as metaphor.

"Every bridge built, every electric streetlamp erected, was intimately involved in overt representational as well as technical work," writes Brian Larkin in his study of film and radio in colonial Nigeria.[57] Larkin connects British film and radio networks in Nigeria to the marvels of colonial infrastructure; in his estimation, both were used to "provoke feelings of the sublime not through the grandeur of nature but through the work of humankind… The erection of factories; the construction of bridges, railways, and lighting systems; indeed the terrifying ability to remake landscapes and force the natural world to conform to these technological projects by leveling mountains, flooding villages, and remaking cities."[58] Being of the technological order and capable of rendering it visible, colonial cinema and radio operated on a double register in that they

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[56] Kirby, 152.
[57] Brian Larkin, *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria* (Durham and London: Duke University Press, 2008), 47.
[58] Larkin, 36.

simultaneously transmitted signals and hailed people as political subjects. Instruments of the "colonial sublime," audiovisual technologies hence amplified and publicized infrastructure, not only connecting the land but also constituting colonial subjects, who could then aspire to eventually become one with the colonizer. What remains unclear in Larkin's articulation of infrastructure's double duty as technology and representation, however, are the highly specific thresholds past which one becomes the other. By and large, Larkin assumes colonial film and radio to be a successful communication act (irrespective of reception, in which he identifies "resistances"), an *interpellation* in which the subject is induced through the sublime to dialectically recognize his or her place in the world the colonizers were preparing.[59] The Chinese case involves many of the same concerns and practices that Larkin describes of Nigeria. In examining it, I show that in this particular context—but also as a rule—such communicative acts are not coherent; in them, the "subject" remains in a state of constant modulation and deformity. An infrastructure network and its picture are never the same thing, particularly under conditions of uneven development. In fact, the discrepancy between infrastructure and its picture can be constitutive of national identity (although not only so). As in Tan Sitong's thinking, infrastructural metaphors are given a utopian charge precisely because one makes use of them from a perspective of relative "paralysis," or the dispersion of a cosmic body into multiple regions. The fact that the picture is bigger than the thing it depicts is not a flaw of the picture but of the thing in its distinctness from its beholder.

National Projection Network

[59] No doubt this is a Wordsworthian as opposed to a Kantian sublime.

In December 1936, the Ministry of Education passed two decrees, which were to be implemented at the municipal and provincial level. The first, the "Cinematographic Education Implementation Plan," called for provincial governments to demarcate educational film screening districts and to designate an institution—usually an educational institution—responsible for operating mobile film projection in each district.[60] The "Radio Education Implementation Plan" included a set of similar requirements, except that the responsible institution would be put in charge of maintaining an array of radio receivers and speakers in each locale.[61] Put together, the two orders were called the "electrified education laws" (*dianhua jiaoyu fagui* 电化教育法规), a crystallization of several years of theoretical discussion, publicity campaigns, and local implementation programs aimed at inserting the electrically powered teaching aids into the national educational debate. Implemented through an existing meshwork of municipal and provincial educational institutions—most notably mass education centers—the laws created a uniform structure for film screenings and radio broadcasts. Whereas local initiatives tended to work on an ad-hoc system of requests and subscriptions, the laws required regularity and spatial coverage. As a corollary, the Ministry's newly convened film committee began building its collection of 16mm films, which would be provided free of charge to the institutions responsible for screening districts. Supplementary funds were authorized to each district for the purchase of projectors and the maintenance of radio equipment.

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[60] See "Ge sheng shi shishi dianying jiaoyu banfa," *Faling zhoukan* no. 329 (1936), 5-6. The Plan was passed and distributed to municipal Social Bureaus and provincial Education Bureaus on August 22, 1936.
[61] "Ge shengshi shishi boyin ban fa," *Hubei minjiao* 1.2 (1936), 133-134.

The Ministry's ordinances were the first large scale efforts to implement an agenda that had already been on the books since 1933, when the National Educational Cinematographic Society published *The Way Out for the Chinese Film Industry*. There, the construction of hinterland theaters was enumerated as one of the five industrial priorities which otherwise included the development of sound film, the promotion of industrial cooperation, the establishment of state subsidies, and the elimination of opportunism. Claiming that "the Chinese film industry cannot only pay attention to city-dwellers, who are in the minority, while ignoring the broad masses in the hinterlands," the document urged for the expansion of theatrical coverage such that Chinese companies could establish a "stable foundation" in the inland market.[62] Targeted at the commercial film studios, the appeal was framed with a specific problem in mind, namely the undue influence of Southeast Asian markets on Shanghai production (discussed in Chapter 1). In such a formula, the Lianhua strategy of vertical integration, which linked exhibition infrastructure with the filmmaker's ability to maintain his artistic integrity and not "accommodate [his] environment," was very much near the surface.[63] "The vast majority of [theaters] are out for profit alone," writes Luo, "They have not thought deeply about the long term. Say there is a quality film that's been produced, but the theaters all block it. There's no way of getting it in front of the viewer."[64] For Luo, the "long term" could only be visible under conditions of increased "cooperation" between theaters and film

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[62] Zhongguo jiaoyu dianying xiehui, "Zhongguo dianying shiye zhi chu lu" (1933), *Zhongguo dianying ni bu zhi dao de na xie shi'er: Zhongguo zaoqi dianying gaodeng jiaoyu shiliao wenxian shihui,* ed. Sun Jiansan (Beijing: Shijie tushu, 2010), 400-1.
[63] Zheng Zhengqiu, "Ru he zou qianjin zhi lu" (1933), in *Bainian zhongguo dianying lilun wenxuan vol. 1* (Beijing: Wenhua yanjiu chubanshe, 2006), 129.
[64] Quoted in Guo Haiyan, "Luo Mingyou yu guopian fuxing yundong zai renshi," *Dangdai dianying* 2 (2009), 95.

producers; artistic quality was dependent on industrial predictability. The continuity between state initiatives in this area and Lianhua's vertical integration endeavors made it predictable that Luo Mingyou and other Lianhua associates were among the more vocal and well-connected members of the National Educational Cinematographic Society. At the 1935 meeting, held in Hangzhou, Jin Qingyu, co-founder of Lianhua, observed that since the film "renaissance" of recent years, "domestic produced films…have already garnered the faith of the people." However, "the so-called 'people of our nation' [*guoren* 国人] consist merely of those of the middle class and above. What we know as the real workers and peasants have in fact never had a taste of cinema," an observation substantiated by the fact that, in Jin's experience, peasants never sang "The Big Road Song" or "The Trailbreaker" (both songs from Lianhua films) at the market.[65] Jin called for mobile film teams using the substandard gauge—either 16mm or 8mm—to bring progressive films to peasants and workers, favorably citing Soviet achievements in this area. The mobile teams would be funded by the state, since the private companies could not shoulder the unprofitable cause. "As long as Chinese cinema remains a commodity," he states, "it can only reach the eyes of a portion of people…Chinese cinema has yet to make contact with the immense body of people who have not had the opportunity to be educated."[66] As the previous two chapters have shown, the film-commodity as Jin posits differs from that of the Hollywood's rationalized Fordist framework, the systemic genius of which was designed to synthesize high and low culture into a sustainable mode of value extraction. Cinema as commodity in the Chinese case meant wild volatility, where

[65] Jin Qingyu, "Xiaoxing dianying yu yidong fangying dui," *Zhongguo jiaoyu dianying xiehui tekan* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1935), 60.
[66] Jin Qingyu, 60.

the screen image, mediated by the demands of an audience distributed across different political sovereignties and by the market domination of American stylistics, became indexical of capital's erratic migrations across uneven networks. Jin's appeal to the unity of screening infrastructure, the "people," and the state thus drew attention to the fact that differential access to screens meant that the film industry's nationalistic dreams remained distorted flickers in the minds of an urban spectatorship.

At a fundamental level, however, theatrical access was not merely a question of ticket cost, especially where rural areas were concerned. Stationary cinemas were situated in transportation hubs and supplied by ample electricity, whereas in rural exhibition, transport and the availability of power were issues of persistent concern. According to a 1937 estimate, approximately twenty percent of the total number of Chinese municipalities and rural counties had running electricity.[67] "The transportation difficulties in the inland and the underdevelopment of our electrical industries [….] make it impossible for Chinese films to appear in front of the masses," wrote Chen Lifu.[68] While the advent of portable 16mm films and projectors eased logistical and financial burdens of bringing cinema to the masses, they posed a series of associated problems. In a 1941 roundtable on the future of Chinese cinema, Luo Jingyu, the technical advisor of the wartime China Motion Picture Corporation, plotted an expansive system of nationally owned "small scale cinemas" using 16mm projectors and seating audiences of 3,000 to 4,000.[69] The small format, Luo wrote elsewhere, was nothing short of a "revolution in film technology," offering Chinese cinema the opportunity to overcome both the high

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[67] Zhao Hongxian, *Jiangsu shengli minzhong jiaoyu guan dianhua jiaoyu gaikuang,* np.
[68] See Chen Lifu, "Xu," *Zhongguo dianying nianjian* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1934), 95.
[69] Sun Shiyi et. al., "Zhongguo dianying de luxian wenti," *Zhongguo dianying* 1.1 (1941), 13.

capital investments required for 35mm projection and foreign entrenchment in the commercial film market.[70] Nonetheless, he warned his colleagues against fixating on individual technological advances. Responding to screenwriter and theorist Sun Shiyi's statement that recent advances in 16mm sound film had "solved all our technological problems," Luo pointed out that that the paucity of positive film stock, the lack of trained projection personnel, and China's undeveloped industrial capacity for producing film equipment severely limited the usefulness of 16mm technology.[71] 16mm was not just a technology but a "technological system" (*jishu tixi* 技术体系).[72] Effective 16mm film networks required a wide range of investments beyond just films and projectors, and the coordination of such investments invited and simultaneously thwarted the intervention of the state.

As Haidee Wasson points out, portability cannot be read outside of the *protocols* by which cinematic technologies are be inserted within specific institutional forms.[73] Writing in the context of the U.S. Army's motion picture use during the Second World War, Wasson elaborates how the lightweight and durable physical qualities of the JAN P-49 projector enabled it to be inserted as if seamlessly into a global network of military screens, in turn leading to a generalized protocol of postwar platform versatility. Whereas for the U.S. military, institutional needs determined engineering protocols, for Chinese educators with little access to the networks of equipment design and production, off the

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[70] Luo Jingyu, "Dianying de guoce," *Zhongguo dianying* 2 (1941), in *Kangri zhanzheng shiqi de Chongqing dianying, 1937-1945*, Wang Chongxue ed. (Chongqing: Chongqing chuban she, 1991), 78. For a further discussion of Luo's essay, see Weihong Bao, 278-282.
[71] Luo Jingyu, "Zhongguo dianying de luxian wenti," 79.
[72] See Bao's discussion of this in Bao, 279.
[73] Haidee Wasson, "Protocols of Portability," *Film History: An International Journal* 25.1 (2013), 244.

market products determined the contours of institutional capacities. Indeed, the fact that Jin mentions the 8mm as a possible substandard gauge belies the fact that 16mm had already become the internationally recommended gauge for educational cinema, enshrined by the International Educational Cinematographic Institute (after much debate and at the expense of French interests) and enforced by the market availability of projectors and films.[74] Indeed, 8mm, later to become the standard gauge for guerilla filmmaking, would have been a better fit for the Chinese context, due to its higher degrees of portability, its lower energy consumption, and the relative unimportance of image quality in Chinese educational practice. Like the differing rail gauges of the late-nineteenth century, which as Mattelart points out comprised interfaces for competition between imperialist powers, cinema gauges and formats were also instruments for generating path dependency in the developing world.[75] In the next chapter, I take the Jiangsu Provincial Mass Education Center as a case study of an institutional mode of exhibition built around the 16mm gauge. Here, however, sketch the broader developmental protocols in which small gauge cinema became intelligible as electrified education.

Transportation Networks

Although Jin Qingyu's discourse on 16mm projection does not directly countenance the technology's associated developmental contexts, his anecdotes register them obliquely by means of his rhetorical archive. A learned orator, Jin draws on a wide

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[74] See Kenneth Garner, "Seeing is Knowing: The Educational Cinema Movement in France, 1910-1945" (Doctoral Dissertation, University of Michigan, 2012), Chapter 4.
[75] Mattelart, *Mapping World Communication: War Progress, Culture,* trans. Susan Emanuel and James A. Cohen (Minneapolis: University of Minnesota Press, 1994), 19-22.

array of often conflicting tropes. The question of the peasant audience occurs to him at the moment when modern transportation meets agricultural labor. "Every time I am on the train and I look out in the fields at the people with calloused hands and feet, I ask myself: do they know what kind of thing cinema is? Every time I'm in a tramcar, I often hear youth humming songs like 'The Big Road' and 'The Trailbreaker'. Where I live, in Shanghai's Xujiahui, I have dealings with peasants all the time, but there I've never heard songs of the 'Big Road'-type coming out of their mouths."[76] "With calloused hands and feet," an allusion to the philosopher Xun Zi (310-235 B.C.), identifies peasants by the wear of physical labor on their bodies.[77] In Xun Zi's Confucian philosophy—as in that of his rival Mencius—the agriculturally synced rhythm of those who "wake at sunrise and sleep and night, plowing, weeding, seeding, planting" makes little time for the observation of ritual, and hence for enculturation. As the philosopher points out, a peasant who toils to feed his parents can barely be called "filial," since he might still be rude in his gestures or immodest in his speech.[78] From the other side of the train window more than two millennia later, the Lianhua executive supplements the traditional prestige of learning with the aids of machine civilization. Jin thus encounters the peasant at the intersection between different orders of experience and thought, the compatibility of which poses an educational question.

As Lynne Kirby points out, cinema spectators and train passengers share the experience of being still and in motion at the same time, a position that makes for volatile

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[76] Jin Qingyu, 60.
[77] Xun Zi, "Xunzi-Zidao*," Ziyewang,* Accessed 15 June, 2017, http://www.ziyexing.com/files-5/xunzi/xunzi_29.htm.
[78] Xun zi, ibid.

subjectivity, constantly veering between the shock of temporal disorientation and the hypnotic vulnerability to new certainties.[79] The spectator's vulnerability to the commercial exploitation of images (or, alternatively, its use by governments) is conditioned by this ambivalence, on one hand the disorientations of industrial modernity, embodied by the train, on the other the steady rhythm that almost leads one into dreaming. As Wolfgang Schivelbusch notes (in the monograph that largely inspires Kirby's research), shock and disorientation could never be imputed as consistent characteristics of technological transport; such negative categories are always posited in relation to pre-existent experiential orientation, and when travel on the meshwork of rail networks become matters of course, new forms of order arise.[80] In this way, the reconstitution of time and space made possible by rail networks also posits an infrastructural imaginary coincident with that of twentieth century nationalisms. "The networks traced by the locomotive as a machine in movement recognized the rigidity of national borders," writes Mattelart, which comprised "the partitions of an age in which 'nation' was the motor force."[81]

In *The International Development of China* (1922), Sun Yat-sen envisioned encompassing rail lines that would link the three major ports to inland deposits of coal, iron, and other mineral wealth. The lines would further stretch to connect up with the transcontinental railroad, which would free China from Britain's command of the seas.[82]

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[79] Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema* (Durham: Duke University Press, 1997), 7-8.
[80] Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Berkeley: University of California Press, 1977).
[81] Mattelart, 19.
[82] Sun Yat-sen, *The International Development of China* (New York: Putnam, 1922).

Inspired by the growth of industries during the First World War, Sun invited the Western powers to supply the technical expertise for developing China's wealth. He saw this as a mutually beneficial arrangement that would further open up China's markets for the world economy. On the one hand, technology transfer presented, for Sun, a neutral instrumentality, coordinated via the universally shared knowledges and norms of modern technologies and institutions. On the other, infrastructure was also imbued with psychic and ethical dimensions:

> The Chinese are a stagnant race. From time immemorial a man is praised for staying at home and caring about his immediate surroundings only… But in modern civilization the condition is entirely changed. It is the movement of man that makes civilization progress. China, in order to catch up with modern civilization, must move…However, China, at present, lacks the means for facility of individual movement, for all the great old highways were ruined and have disappeared, and the automobile has not yet been introduced into the interior of the country…Before we can use the motor car, we have to build our roads. In the preliminary part of this International Development Scheme, I proposed to construct one million miles of roads.[83]

The shift from the metaphorical "China, in order to catch up with modern civilization, must move" to the individual's physical movement facilitated by roads and rail, spoke to the interchangeability of infrastructure's narrow and broad circuits of figuration. It also repeated the epistemological dynamism of Tan Sitong's ethical ether. The one million

[83] Sun, 218.

miles of roads served both as a developmental program and a metaphor for overcoming the stagnation of place-centric agricultural existence. As developmental program, such a vision pointed to the fact that in 1920, outside the foreign concessions, China had only 100 miles of improved roads designed for automobile traffic.[84] Over the course of the next decade, this number would expand to 40,000, owing in a large part to military-driven construction in South China in the period leading up to the Nationalist Party's victorious second northern expedition.[85] By around the same time, China had 6,000 miles of rail lines, with high concentrations in north China, which had been developed in a patchwork fashion by rival imperial powers and on the basis of loans taken out by various national governments.[86] Here as in elsewhere, troop movements were the advance guard for overcoming the sluggishness of "stagnant race[s]," comprising the motor for what Paul Virilio has elsewhere conceptualized as "dromocratic progress."[87] In Virilio's thinking, modernity is of a logistical character, where the capacity to control and facilitate the speed of movement is determining of the fate of institutions, states, and peoples. But whereas Virilio conceives dromocratic progress as a wedge that divides humanity into "*hopeful populations* (who are allowed the hope that they will reach, in the future, someday, the speed that they are accumulating, which will give them access to the possible—that is, to the project, the decision, the infinite: speed is the hope of the West) and *despairing populations*, blocked by the inferiority of their technological vehicles,

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[84] The statistics are from Feuerwerker, quoted in Miriam Gross, "Marketing Tourism in Republican China, 1927-1937," *Twentieth Century China* 36.2 (2011), 121.
[85] Gross, 121.
[86] Chang Jui-te, "Technology Transfer in Modern China: The Case of Railway Enterprises in Central China and Manchuria," in *Manchurian Railways and the Opening of China: an International History,* eds. Bruce Elleman and Stephen Kotkin (Armok NY and London: ME Sharpe, 2010), 105.
[87] Paul Virilio, *Speed and Politics,* trans. Marc Polizzotti (Los Angeles: Semiotext(e), 2006), 70.

living and subsisting in a finite void [italics in the original]," here such a clean division, marked by absolute disparities in speed, is not possible, since the principle of uneven development insists on the coevalness of different speeds.[88] For Sun Yat-sen, the expanse of unpaved infrastructure in China stood out both as a void of despair and an ether to which his figures turn. In the same way, the peasants Jin Qingyu sees passing by outside his train window embody both uneducated rudeness and a more culturally authentic spectatorship. The awkward coexistence of pastoral celebration and intellectual condescension in Jin's speech appears in fact to double the coexistence of the GMD leadership's technocratic dreams of an all-encompassing rail grid and its idea that authentic Chinese culture, at base, comes from the agricultural way of life. What divides the two sides of this non-synchronous encounter is not speed itself, but the spatiotemporal dispersion of language it occasions.

Blindness of the Mind

In a 1941 essay on cinema and the limits of mass literacy, Guomindang propagandist Wang Pingling writes:

> If we realize that the knowledge of written words is but the key to understanding, that it is necessary to *use* the words one has already learned in order to inculcate and enlighten with knowledge, we find that mere literacy is hardly sufficient to effectively transform life. We need to understand that the real agony of being

[88] Virilio, 70.

> blind to words is not in the blindness of the eyes but the blindness of the mind [*xin*]."[89]

Distinguishing between the "blindness of the eyes" and the "blindness of the mind," Wang sought to defetishize literacy by demoting the acquisition of writing to a means rather than an end. Opposing the physiological (and hence superficial) perception of the eyes to a more profound mental and spiritual vision, Wang constitutes the former as a field of media techniques, in which one medium could easily replace another. Breaking the time-honored circuit between the written character and the possession of knowledge, Wang championed the motion picture as a replacement for writing on the basis of a media-temporal calculation. On the one hand, illiterates "are paupers who for the most part rely on their physical strength in the lowest paying jobs," with no time to "study abstruse characters" much less "seek out from among those abstruse characters knowledge on how to live."[90] On the other hand, during the war, there was "no time to teach the masses to memorize those square characters of uncertain use. Rather we need to use the most economic of methods to give the people a correct understanding of matters relating to their country, society, themselves, and their families."[91] Observing that since most illiterates live in "squalid environments" with no contact with the outside world, to teach them Chinese characters would be similar to "forcing us to learn how to read Tibetan, Polish, or Sanskrit."[92] The twenty years of the Chinese literacy movement had, in fact, "accomplished nothing" compared to what could be accomplished by "short films about the necessary topics, on what attitudes the masses should take toward their

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[89] Wang Pingling, 156.
[90] Wang, 156.
[91] Wang, 161.
[92] Wang, 157.

themselves, others, the state, and society, and the techniques they must know for their profession."[93] "Film's power of delivering subtle suggestions and inciting emulation is strong," Wang writes, for it is capable of "organizing the instincts, moods and tendencies of the masses under an ideology (*zhuyi* 主义).[94]

Whatever the practical or empirical validity of such claims, which were typical of Chinese proponents of motion picture education, each demonstrated a strong temporal impulse, gesturing toward a rupture that demotes Chinese "square characters" to old media, visible in their physiognomic peculiarities and slow response times. As Sun Mingjing wrote in 1942, "the times continue to march forward, the already highly developed written language cannot happily take up recording, communication, and educational work required by today's culture."[95] (Later, in 1948, Sun would compare teaching with books to attempting to split atoms with a hammer.)[96] The case for the replacement of the written word by cinema was driven both by the pull of

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[93] Wang, 158.

[94] Wang, 155. Indeed, even the opposition of eyes and mind appears convoluted upon further consideration. The evocation of the eyes is authorized by the Chinese expression *wenmang*, literally "blind to the word." Yet this blindness is not literal blindness. Afflicted by it, the masses remain capable of seeing the shapes of words but not the signs they form. In the classical tradition, *wen* meant far more than the written signifier but encompassed a broader mode of pattern recognition; In the canonical fifth century text *The Literary Mind and the Carving of Dragons,* Liu Xie says that *wen* has been realized when colors and shapes have been effectively organized, and sun and the moon are patterned into "the symmetrical images of heaven" and the mountains and rivers into the "ordered shapes of earth" (Liu Xie, *Wenxin diaolong,* as translated in Haun Saussy, *Great Walls of Discourse and Other Adventures in Cultural China*, 74). To recognize written characters is not strictly a matter of vision but the link established between it and cognition. After all, motion pictures pass through the eyes as well, but Wang's does not address this question, taking it for granted that "film's power of delivering subtle suggestions and inciting emulation is strong." "The blindness of the eyes" refers, in the last instance, to metaphorical vision, while its physical instantiation is ironically the pathway for the valorized term cinema. The binary set up between physiological perception, on the one hand, and cognitive-spiritual perception, on the other appears reversed by the case it is purported to justify.

[95] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," *Dianying yu boyin* 3.7-8 (1945), 24.

[96] Sun Mingjing, "Zhongguo wenhua dageming zhong de yi ge xiao shiyan," *Yingyin* 7.8 (1948), 91.

technoscientific contemporaneity (and thus one's own backwardness) and by the recognition of the temporal matrix of everyday life, which did not permit the long hours needed to learn Chinese characters. On these grounds, motion picture education shared the same predilections with literacy educators, many of whom supported the adoption of a phonetic alphabet or the wholesale replacement of Chinese with an artificial language.[97] Chinese writing, after all, evolved out of free time, and in this way it functioned as the cultural proof of privilege. To teach the masses to read was to make time where there was none, something that the most conscientious of literacy educators recognized to be an inevitably political act.[98]

In the disagreement between the two great literacy educators James Yen (Yan Yangchu) and Tao Xingzhi, one finds two iterations of the same problem. Yen developed his literacy teachings toward the direction of building experimental communities. In these communities, newly acquired words expanded the field of the students' actions, acquiring consistency in mutual assistance, hygiene, and collective decision-making. His Ding County education experiment constructed in the 1920s and 1930s slowly became a laboratory for local self-government along the lines of a liberal democratic model. When after 1949 he moved his project to the Philippines, such a model became a force in the

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[97] See Glenn Peterson, *The Power of Words: Literacy and Revolution in South China, 1949-95* (Vancouver: University of British Columbia Press, 1997).

[98] Jacques Rancière: "Plato states that artisans cannot be put in charge of the shared or common elements of the community because they do *not have the time* to devote themselves to anything other than their work. They cannot be *somewhere else* because *work will not wait.* The distribution of the sensible reveals who can have a share in what is common to the community based on what they do and on the time and space in which this activity is performed. Having a particular 'occupation' thereby determines the ability or inability to take charge ofwhat is common to the community; it defines what is visible or not in a common space, endowed with a common language, etc." *The Politics of Aesthetics,* trans. Gabriel Rockhill (New York: Bloomsbury, 2004), 13.

field of international development.[99] Tao reproached Yen, in his emphasis on localized experiments, for reducing "commoner education" (*pingmin jiaoyu* 平民教育) to "education for the few" (*shaoshu de jiaoyu* 少数人的教育), thus foreclosing the possibility of mass dissemination.[100] Tao's own model was more hands-off, relying on a Latinized New Writing (Latinxua Sin Wenz) primer and spread by students who would become "little teachers" in a "self-sustaining movement."[101] Latinxua notation did not distinguish for tone, thus allowing for local differences in pronunciation and flexibility in non-Mandarin dialects; "it is estimated that an illiterate man or woman can learn to read and write in this new alphabet in one month."[102] Like Yen, and paraphrasing John Dewey, Tao affirmed the purpose of education as "life," yet his vision of life was not built on the image of a carefully planned and gradually modernizing village but on inexpensive teaching materials and proliferating praxis: "So the organizers of the movement lay it down that anyone who possesses knowledge has the responsibility of sharing it with others. The thirty or forty farmers who join an evening class, or come for instruction either before or after harvest when they have more leisure, are not only students but also teachers."[103]

On the one hand, there was the effort to craft a peasant life corresponding to the acquisition of language (with its own temporal ordering); on the other, there was the widespread dissemination of teaching materials and praxes into a social field, without

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[99] See Charles Wishart Hayford, *To the People: James Yen and Village China* (New York: Columbia University Press, 1990. Also Yu Zhang, "Visual and Theatrical Constructs of a Modern Life in the Countryside: James Yen, Xiong Foxi, and the Rural Reconstruction Movement in Ding County (1920s-1930s)," *Modern Chinese Literature and Culture* 25.1(2013), 47-95.
[100] Tao Xingzhi, kindle.
[101] Tao, Ibid.
[102] Tao, Ibid.
[103] Tao, Ibid.

corresponding environmental controls. In both instances, the acquisition of language by the masses involved a transformation of the environment and a resequencing of time. As Suzanne Pepper argues, taken to its logical conclusion, education reform in Republican China meant social revolution.[104] Replacing social revolution with technological revolution, however, has been a veritable strategy practiced by twentieth-century governments. Wang Pingling's advocacy for a motion picture education thus sidelined the problematic question of *why peasants don't have time to learn* by economizing the medium for learning itself. As such, it turned the sociopolitical problem of mass literacy into a logistical one. In a telling moment of his discourse, Wang, quoting Tao Xingzhi's doctoral advisor John Dewey, identified the school as a "bridge between the family and society."[105] He concluded that this meant the school's equipment (*shebei* 设备) needed to be "one with actual life conditions" (*xianshi shenghuo* 现实生活), by which he meant both social conditions and the state of current technology.[106] Working without educational films in social education, Wang observed, would be tantamount to running a school without textbooks.[107]

Dewey, for his part, cautioned against the "standing danger" that "he material of formal instruction will merely be the subject matter of the schools, isolated from the subject matter of life-experience."[108] In 1916, the same year as the publication of *Democracy and Education,* Dewey's most important Chinese student, Hu Shi, turned the

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[104] Suzanne Pepper, *Radicalism and Education Reform in 20th-Century China: The Search for an Ideal Development Model* (Cambridge and New York: Cambridge University Press, 1996), 125.
[105] Wang, 163.
[106] Wang, 163.
[107] Wang, 154.
[108] John Dewey, *Democracy and Education* (New York: McMillan, 1916), 8-9.

concept into an argument for the *baihua* vernacular. Observing classical Chinese to be the most damning version of educational separation, he put the matter in stark polemical terms: classical Chinese was a dead language, while *baihua* was alive.[109] "Life," in this instance, was derived from a relationship to "living speech," which in turn effectuated a relationship to contemporaneity. One of Hu Shi's most poignant suggestions for writers was that they stop seeking the support of poetic allusions to describe contemporary realities. For him, to speak in the vernacular meant to share the same time as the contemporary people. Such was a phonocentric trope more rhetorically alluring than practicable, however, given that Chinese spoke many vernaculars.

In order to understand why, for the educators cited above, cinema was able to replace language as a source of life, it will be necessary to say more about the specific contours of the May Fourth movement's linguistic vitalism, which is also a discourse on the body, or what Andrea Bachner calls "corpography."[110] "During the era of language reform under the aegis of Westernization and the idea of nationalism, the Chinese language acquired a body, a dead one," she writes.[111] While modernist poets, philosophers, and filmmakers such as Ezra Pound, Ernest Fellenosa, and Sergei Eisenstein were celebrating sinographic script for its pictographic instantaneity, Chinese language reformers found the same writing system to be of a "necrotic character," weighed down by its material body to such a degree as to smother any living idea that

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[109] Hu Shi, "Some Modest Proposals for the Reform of Literature," trans. Kirk Denton, in *Modern Chinese Literary Thought: Writings on Literature, 1893-1945* (Stanford: Stanford University Press, 1996), 123-139.
[110] Andrea Bachner, *Beyond Sinology: Chinese Writing and the Scripts of Culture* (New York: Columbia University Press, 2014), 20.
[111] Bachner, 20

could be expressed in it.[112] Separated from sound, the sinograph was seen by reformers such as Lu Xun to be linked indelibly to "an archaic, antiscientific mindset mired in superstition" which "spelled the demise of the nation as well as of the individual bodies of its citizens."[113] The obsession with the mortal and deadly characteristic of Chinese writing, however, stretched both before and beyond the specific quality of the sinograph itself, involving at one end the ponderous tradition of classical literacy, and on the other the smothering of ideational presence. Lu Xun, in his 1927 lecture "Silent China," expressed the sentiment canonically: "What [China] uses is a difficult to understand classical language; what it speaks are antiquated ideas, and the sounds are all of the past, their sum equals zero."[114] Writing in the same register, Esperantist Hu Yuzhi underscored the stultifying effect of the non-correspondence of linguistic register: "totally disconnected from normal speech," the sinograph had "spread its germs to living people" to such a degree that "finding flesh and bone for the living script of the future is quite difficult."[115] While pointing out the "deeply phonocentric" nature of such critiques, which buy into alphabetic ideology's conflation of writing, the spoken phoneme, and ideation, Bachner nonetheless finds in them a "strange strain of necrophilia," seemingly enthralled in the "imaginary of a dying and deadly writing system."[116]

Contra the misconceptions of its modernist interpreters, sinographs are not purely ideographic, but contain a combination of pictorial and sonic elements. Yet since the sonic elements do not represent sound but simulate it by referencing the pronunciation of

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[112] Bachner, 20-1.
[113] Bachner, 21.
[114] Lu Xun, "Wusheng de zhongguo" in *Lu Xun zawen xuan,* eds. Liu Fengyi and Wei Jianggang (Changchun: Jilin chuban jituan youxian zeren gongsi, 2009), 152.
[115] Hu Yuzhi, quoted in Bachner, 22-3.
[116] Bachner 23.

other pictorial elements, over time, the pronunciation of a character changes, without any change in the character itself. The advantages of such a system for a dialectally diverse polity have been clear to contemporary critics, who praise the "musical" contrapuntality of Chinese words and speech as emblematic of a non-imperialistic attitude of "harmony in difference."[117] While such conclusions are questionable, they highlight the degree to which the corpses addressed by linguistic reformers—whether classical Chinese or the sinograph *tout court*—are figures of *dispersal* that throw complications into any simplistic life-death binary. When critics such as Lu Xun and Hu Yuzhi attacked Chinese logograms for their disconnection from normal speech thus, they were reiterating what was already a classical lament of dynasties in decline—that under conditions of political disintegration, the words and the sounds drew distant—while radicalizing it in the name of abolition.[118] Indeed, in a different text, Lu Xun makes this reversal complete by arguing that the distance between writing and speech was not an effect of political disintegration but a deliberate "policy of obscurantism" (*yumin zhengce* 愚民政策).[119] What is essential to reading the arguments of linguistic reformers is thus the question of contemporaneity, a concept not reducible to the metaphysics of presence for the precise reason that it does not presuppose theological residue. Bachner comes to a similar conclusion in her reading of Hu Yuzhi, arguing for the materialism of the latter: "a phonetic script with its (supposedly) direct link between written and spoken language has more use value than the Chinese character relegated to the commodity fetish of Chinese

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[117] See Han Yuhai, "Speech Without Words," trans. Matthew Hale, *Positions: East Asia Cultures Critique* 15.2 (2007), 369-401.
[118] This was linked, in turn, to a "musical" theory of governance. See Haun Saussy, *The Problem of the Chinese Aesthetic* (Stanford CA: Stanford University Press, 1993).
[119] Lu Xun, "Men wai wen tan," in *Qie jie ting zawen* (Beijing: Renmin wenxue chubanshe, 1973), 65-87.

tradition for the cultural elite. Language, as circulating currency, not as useless ghost money [a reference here to Derrida], has the most use value whenever reality and language are closely connected."[120] Indeed, *baihua* worked as a writing system because despite its fundamentally non-phonetic materiality, its orientation toward representing speech expanded the circuitry of written expression, incorporating not only the lexicography but also the rhetorical structures of the everyday. Yet, as critics such as Qu Qiubai pointed out, May Fourth *baihua* also succumbed to its own necrotic inertia, becoming a "New Classical Chinese" constructed out of Europeanized grammar, translatese, and rehashed Chinese lexicography. Read aloud, it was incomprehensible to unschooled Chinese even within the same dialect region. Thus it remained the possession of a literary elite (as chapter 1 has discussed in part).[121] That the issue was one of possession rather than expression, however, shows how *baihua's* expanded circuitry was, at its center, nonlinguistic, since it did not represent but mapped the sonic, grammatical, and as I will argue infrastructural, patterns that are in principle exterior to it. In "Silent China," Lu Xun offers a compelling exposition of this dynamic. The conclusion—"We need to speak our own, modern, language, to use a living vernacular, to take our own thoughts, our feelings, and speak them directly"—is, of course, programmatic. However, his process of proof takes the listener astray into various nooks and crannies of writing, speech, and political courage. From Lu Xun's text, one surmises that for a Chinese to speak, and then write, what she actually thinks comprises nothing less than a world-

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[120] Bachner, 22.
[121] Qu Qiubai, "The Question of Popular Literature and Art," trans. Paul Pickowicz, in *Modern Chinese Literary Thought: Writings on Literature, 1893-1945,* ed. Kirk Denton (Stanford: Stanford University Press, 1996), 418-27.

shattering event.[122] At one particular turn in the argument, Lu Xun answers an objection: "there are people who say that classical Chinese can be understood by people in all provinces, while the vernacular differs from place to place...Do they not know that once we have universalized education and a developed transportation system, then everyone will understand the relatively straightforward *baihua*?"[123] The matter-of-factness of this answer belies the degree to which it surmises the link between the expressive presence desired by May Fourth thinkers and its material foundation in logistics, speed, and circulation. In order for a person to say what they actually think in writing without entering into the maze-like circuitry of a silent literary tradition, differences in speech must first be neutralized through transportation and universal education. In a manner similar to Tan Sitong's call of the ether, the voice in "Silent China" refers not to an existing voice but a futural one, which speaking from a utopic position, cuts through the present's dispersive fragmentation.

How the implements of electrified education—cinema, radio, and magic lantern—can stand in for this living vernacular thus becomes more tangible. The foregoing discussion also sheds light on Zhenjiang mass educator Liu Zhichang's observation, cited in Chapter 2, that cinema compensated for uneven transportation infrastructures by lending sympathetic powers to the lecturer's speech. As a technological network that linked the screening space to the world, electrified education was thought to overcome the non-contemporaneity between the teacher's discourse and the learner's frame of reference. Thus, Sun Mingjing, in a 1948 text with the portentous title "A Small Experiment in the Great Chinese Cultural Revolution" claims: "The use of audiovisual

[122] Lu Xun, "Wusheng de zhongguo," 155.
[123] Lu Xun, "Wusheng de zhongguo," 154.

implements (*yingyin gongju* 影音工具) to introduce impressions, represent reality, transmit thoughts, and express sentiments may be the most important development in Chinese culture since the *baihua* vernacular movement."[124] With them, the author posits, "scholars and illiterates may freely converse and great leaders may communicate with street peddlers and servants to cooperatively plan the reconstruction; through them, literary giants and famous scientists can author masterpieces with greater creativity, which may thus be appreciated and utilized by a larger audience; yet-to-be-educated workers and farmers can study new ways to transform their own lives as well as world events."[125] Situating audiovisual tool within an evolutionary history of media technologies from speech to knot tying and writing, Sun finds each progressive step to be accompanied with an increase in the "freedom to document and propagate." The ultimate step in this progression is "equipment for recording, storing, retrieving, and transmitting image and sound" which would "break the separation of language and writing systems, transcending the limits of space and time."[126]

Regardless of whether electrical media were in fact capable of such utopian hypercommunicativity, they offered their handlers its image. Chen Yousong, another Dewey student, offers a statement more resonant with the terms of Hu Shi's advocacy of *baihua.* "Using an electrical light apparatus to take the actual forms of things, their relations, movements, sounds, colors, or narrative elements projected on the screen,"

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[124] Sun, "Zhongguo wenhua da geming," *Yingyin* 6.7-8 (1947), 91.
[125] Sun, "Zhongguo wenhua da geming," 91.
[126] Sun, "Zhongguo wenhua da geming, "91.

motion picture education effected "the reform of experience."[127] With the "reform of experience," planners and educators paved over the messy questions of the Chinese literary vernacular and literacy education, which demanded the learner painfully work through the relationships between words, recording surfaces, and the habitual circuits in which they are embedded or from which they are detached. Dewey's theory of language learning took on this pragmatic modality, shared with William James and C.S. Peirce, in rejecting conjunction of word and idea, situating the former instead within a dynamic circuit of action and experience. In this view, words acquire their value in the institution and repetition of a habit in relation to an environment, or in Peirce's laconic formula, referenced by Du Weitao above, "what a thing means is simply what habits it involves."[128] Habits form the horizon on which new stimulus is processed, the basis of what Dewey called "experience." Without experience, or with the repetitive experience of an iterative tradition, language was empty letter, for words would lose a clear enunciative locus and drift away from things.[129]

War

As "reform of experience," "electrified education" intervened in enunciation, but not so that the speaker, writer, or the literacy learner may discover—in some deep reserve of being—sincere and undeniable truths to be voiced and negotiated in the public sphere.

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[127] Chen Yousong, *Yousheng jiaoyu dianying* (Beijing : Beijing zhong xian tuo fang ke ji fa zhan you xian gong si, 2007), 10.
[128] Peirce, 43.
[129] Michael Hardt and Antonio Negri write, in *Multitude,* that for American pragmatism habit "is the common in practice: the common that we continually produce and the common that serves as the basis of our actions." It in other words stands between individual and the social world, comprising a process of individuation. See *Multitude: War and Democracy in the Age of Empire* (New York: Penguin, 2005), 197-8.

Rather, as infrastructural metaphor, it displaced the authoritative locus of all verbal statements into a logistical network. What was at stake was less Deweyean media democracy, the rule of people mediated through technologies of public opinion, but Virilio' *dromocracy,* the pure rule of speed.[130] "In these times of national emergency, it is necessary for the majority of our populace, in the shortest time possible, to acquire the know-how and skills necessary for everyday living," Chen Yousong writes, "language-based education is abstract and insufficient. The most effective and rapid method remains electrified education."[131] In more explicit terms, Chen Lifu, in *The New Road for the Chinese Cinema*, describes cinema as a "plan of psychological attack" (*gongxin* 攻心) for masses who needed to be "shocked awake" (*meng xing* 猛省).[132] Emphasis on rapidity, economy, attack, and shock—at bottom, in the estimation of the political backers of educational cinema if not the educational professionals themselves, education was war. In 1938, Chen Lifu, now appointed as Minister of Education, popularized the phrase "treat peacetime like war, treat wartime like peace" (*pingshi yao dang zhanshi kan, zhanshi yao dang pingshi kan* 平时要当战时看, 战时要当平时看). Generalissimo Chiang Kai-shek adopted the slogan in his speech to the national education convention in 1939, "life during the war is none other than modern life…if we did not live life like war, we would not survive, we would be eliminated…because in the past we have been unable to treat peace like war, that is why many are unable to see war as a continuation of normalcy."[133]

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[130] Virilio, *Speed and Politics* (op. cit.).
[131] Chen Yousong, 3.
[132] Chen Lifu, *Zhongguo dianying shiye de xin luxian* (Nanjing: zhongguo jiaoyu dianying xiehui, 1934), 13.
[133] Quoted from Fang Yong, *Jiang Jieshi zhanshi jingji yanjiu (1931-1945)* (Hangzhou: Zhejiang daxue chubanshe, 2013), ebook.

In its chiastic structure, the statement allows two readings: "normalcy" was necessary as a war strategy in a hostile environment—children should keep going to school, farmers keep farming etc.—, while maintaining normalcy in the modern world was already war. In both, order, organization, and discipline comprised strategies of survival against "extinction." In electrified education—here understood under the sign of negetropic struggle—the principles of logistics overtake the cultural, social, economic, and political predicaments that in May Fourth writers like Lu Xun comprised a site for soul-searching self-reflection.

In Virilio's conception, cinema's war function has less to do with propositional content as it does with its ability to pose space-time as a problem that could be resolved visually. Such war functions were at home in peacetime as much as in wartime, having to do with the internalization of visual instantaneity into the fabric of everyday life. For populations as well as for military planners, motion pictures "light the surrounding world without seeing it," thus enabling soldiers and masses to form actionable pictures in their heads under conditions of sensory deprivation (the trenches) or technological disorientation (the city).[134] At the same time, what I have called cinema's participation in war derives less from function as a shared zone of problematization. Cameras were integrated in war making, for sure, but even where there were no cameras or screens modern warfare defined its problems cinematically, as matters of visibility that came prior to one's embodiment in spatial continuity and human habitus. In World War I, landscapes were rendered unrecognizable under the hail of artillery, which destroyed old reference points, while at the same time exposure within the line of vision meant

[134] Virilio, *War and Cinema: The Logistics of Perception,* trans. Patrick Camillier (London: Verso, 1989), 50.

vulnerability to machine gun fire. Making the recording of battles in the traditional dramatic sense impossible (hence prompting the use of re-enactments), modern war placed cameras into the same viewpoints as those of weapons systems. The camera affixed to the trigger system of an airborne machine gun stands out as the paradigmatic example. Under such conditions, the visible could no longer be confused with space in the expansive Quattrocento sense of the term, but became a medium for collapsed distances, an ether—if it is permitted to use the word—connecting "the heterogeneity of perceptual fields," and this knowledge was quickly absorbed by the cinematographers and directors who had experience at the front.[135] Cinema and modern war participated, in other words, in the "suspensions of perception" that Jonathan Crary defines as the essential feature of the modern observer, who no longer trusts in the existence of an extensive world available to perception but actualizes vision through various interfaces, which also constitute her as subject.[136]

Cinema's logistical work, its ability to supply images, thus takes part in a complex interplay where the very coherence and—in some cases, existence—of the observer is at stake. Virilio's discourse, which lets itself be taken along by the hyperboles of leaders, generals, and propaganda commissars, thus not so much defines what cinema "is" for a disciplined scholarly observer as it maps cinema's dispersions across the surface of collapsed distances. As such, it models for its reader how modern logistics overwhelm the hermeneutic process. In a similar fashion, the proponents of cinema as electrified education unleash their rhetoric into infrastructural circuits. Their words

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[135] Virilio, *War and Cinema,* 20.
[136] Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, Modern Culture* (Cambridge MA: MIT Press, 2001).

resonate for the precise reason that they undo the difference between what Tan Sitong understood as the brain and electricity, distinctions that enable objects to appear before reading subjects as deep reservoirs of meaning. My focus on *rhetoric* in this chapter, however, has sought to introduce a series of stops in what otherwise appears to be a smooth and reductive teleology of speed by drawing attention to the unevennesses internal to cinema's war function. First, I have traced Tan Sitong's discourse on ether, which frames this process not as war—the electrical expansion of mental powers—but as utopian ethical calling, through the discourses of electrified education, which splinters into a multiplicity of infrastructural imaginaries. The utopian dimension lies at the interstices between the networks, where words appear to be in excess of the circuitry that ground their enunciation. Second, I have staked, within the context of modern Chinese cultural crisis, the specific type of unevenness that defines the dispersal of writing and speech, in which motion pictures comprise a logistical supplement. Due precisely to the Chinese modernizer's position as representative of what Virilio calls the "despairing populations," proponents and practitioners of electrified education could rarely assume subjective mastery over a dematerialized image. Like Lu Xun in the Sendai classroom, they could not surrender to the fascination of a picture without seeing themselves uncomfortably and indecently bound up in it. As I argued in Chapter 1, the messy materiality of seeing made profuse speech and writing necessary, not to give false depth to the image but to fill up its margins, transforming it into a site of ambivalent subjectivity. In the previous chapter, I showed how the dispersive relations between media streams—image, text, speech, and sound—implicated the spatiotemporal registers of uneven development. In this concluding section of the current chapter and in the next

one, I will return to the question of ether as a way of limning the relationship between education, logistics, and war.

The outbreak of all-out war following the Marco Polo bridge incident in July of 1937 was a watershed moment for educational cinema, and for Chinese cinema more generally. It precipitated a mass migration of filmmakers, students, and educators, alongside ten million refugees, from the eastern seaboard to the wartime capital of Chongqing as well as Hong Kong and the Shanghai foreign concessions.[137] Seven of the major universities from the Eastern seaboard—including Jinling University—relocated to Sichuan, where they stayed open under the roof of China West Union University in Chengdu.[138] Meanwhile, feature film production, under the aegis of the military-run China Motion Picture Company and the government-run Central Film Studio continued until around 1942 when the Burma road fell and celluloid shortages forced all filmmakers to concentrate on making short-format educational and newsreels.[139] During this period, the non-theatrical field expanded significantly, with mobile projection teams operated by a variety of state, military and educational organs roaming the city and countryside, supplying what was increasingly referred to as "spiritual sustenance" to villages, the military, factories, schools, and civic institutions.[140]

As Weihong Bao notes, the war brought together educational filmmakers, state agents, and filmmakers from the commercial industry under the same aegis, placing them in a new environment, which unlike the prosperous southern seaboard from which they

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[137] See Weihong Bao, *Fiery Cinema,* Chapter 5.
[138] Swen Ming-ching, "The Fifth Start," *Educational Screen* (October 1947), 432.
[139] Li Daoxin, *Zhongguo dianying shi* (1937-1945), (Beijing: Shoudu shifan daxue chubanshe, 2000).
[140] 精神粮食. Bao cites Luo Jingyu as having used this word, but it is throughout the literature from this period, including in Wang Pingling's article discussed above. See Bao, 277.

came, had been a provincial backwater up until the arrival of the East's high profile refugees. The encounter occasioned fresh thinking on cinema's role *vis-à-vis* the masses, propaganda, and wartime information technologies. Reflecting experiences with screening extant feature films for a rural Sichuan audience, Yang Cunren's essay "Rural Cinema" reported that rural audiences were often mystified by "urban films," which worked with disorienting film conventions such as temporal ellipses, close-ups, fade-ins, fade-outs, and superimpositions.[141] In a discourse that resonated astoundingly with that of colonial film projectionists like William Sellers, Yang called for a rural style that made more use of medium shots and passage scenes in place of ellipses. It also called for sound films to include a "plot reporter," who would narrate the film, as did the lecturer at a silent screening.[142] As Bao shows, such views spawned heated debates and were emblematic of a newfound crisis concerning cinema's ability to communicate to heterogeneous audiences. These discussions echoed many earlier ones, including that about ether. In a debate between Xu Chi and the Li Lishui about whether cinema had a limit, the former suggested that medium should be circumscribed within a "national territory of cinema," with each nation making films for itself and presenting its national image for international consumption, while the latter called for a "limitless" cinema, taking leave of both its material shell and of its national constrictions.[143] Defining cinema as "a vibrating art in the air," Li makes an argument that is now recognizable in Tan Sitong's terms: "wherever ether exists, cinema's life is attached. Without any obstruction,

[141] Quoted in Bao, 283-4.
[142] Bao, 283. Also see Larkin, 91-105 for a discussion of Sellers.
[143] Quoted in Bao 294-5.

cinema will appear in front of people at any time and space."[144] Observing the propensity of such a theory to challenge both medium specificity and national and linguistic borders, Bao finds in Li's discourse a utopian as well as an ominous resonance; linked to a wartime propaganda apparatus, cinema became a "megamedium [that] materializes an transforms affect as a broadcastable entity but also tries to shape it into codified emotions, beliefs, and attitudes to the advantages of the war."[145]

Cinema as an infinite medium was equivocal, tending, on the one hand toward an all-encompassing propaganda concept, on the other challenging the borders of language, nation, and medium. Reading Li's statement as a matter of rhetoric, however, one can frame this equivocality more precisely. In its hyperbolic troping, which promiscuously imports metaphors from biology and broadcasting, Li's writing takes leave of the technological practices it describes, entering into figurative circuits so broad as to render its object an inoperable blur. Yet, is there a "media realism" we can compare it to? How might we read unevenness into the difference between Xu "realistic" citation of limits and Li's refusal to accept them? What authorizes reading Li's thinking as consisting of little more than "empty words"? It will be necessary, here, to elaborate the vast distances between the fullness of Li's discourse and the paucity of existing conditions for film screening. I address such questions in the next chapter by means of close reading of "landscape" in Jinling University scenery films and maps of mobile exhibition infrastructures.

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[144] Quoted in Bao, 294.
[145] Bao, 306.

Chapter 4 Landscape Work: Logistics, War, Scenery

> Where the world becomes picture, beings as a whole are set in place as that for which man is prepared; that which, therefore, he correspondingly intends to bring before him, have before him, and, thereby, in a decisive sense, place before him. Understood in an essential way, 'world picture' does not mean 'picture of the world' but, rather, the world grasped as picture. – Martin Heidegger[1]

On September 18, 1931, the Imperial Kwangtung army invaded Manchuria on the pretext of a manufactured attack on tracks owned by the Japanese South Manchuria Railway Company. The first overt military action in a drawn-out conflict that would soon become the second Sino-Japanese war (1937-1945), the so-called "Mukden Incident" and Japan's subsequent bombing of Shanghai at the end of January 1932 brought to fore the military, political, and cultural weaknesses of the Chinese nationalist government in Nanjing. On January 1, 1932, while Alessandro Sardi proceeded on his lecture tour of China, the *Henan Education Daily* published an article with the headline "Japanese Elementary School's Cinematographic Education Prepares the Invasion of China!" The article contended that the invasion was not only the result political and economic machinations, but had its origins in "the elementary school classroom."[2] The bulk of the

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[1] Martin Heidegger, "The Age of World Picture," in *The Question Concerning Technology and Other Essays,* trans. William Lovitt (New York: Garland Publishing, 1977), 129

[2] "Riben xiaoxue dianying jiaoyu yi zai qinglüe zhongguo," *Henan jiaoyu ribao* no. 204 (Jan. 1, 1932), n.p.

article's text consisted of the reproduction of a geography lesson plan written for a primary school in Sakurai city. The lesson, designed to inculcate students in resource distributions in East Asia and Japan's "great responsibility" as regional hegemon, centered on a classroom activity featuring a map of Manchuria and the screening of a one-reel geography film.[3] Entitled *The Peasants and Shepherds of Manchuria,* the film presented a vision of Manchuria's "infinite expanse [*yi wang qian li* 一望千里] of fertile land, with fields full of soy, sorghum, wheat, beets, [etc.]… and land populated with cows, horses, pigs and sheep."[4] As they watched the film, the students were asked to note the locations of the aforementioned natural resources on their printed maps. The intertextual cross-referencing of map with moving image offered students an experience of mastery over the material; it also led them to recognize resource-rich Manchuria as "[Japan's] only living space." The guide ended with a eulogy to cinematic instruction. Noting that the ordinary chart was insufficient to "solicit children's lasting attention," it extoled the use of "realistic [*shixie de* 实写的] and concrete moving pictures [to] imprint [lessons] deep into their minds in the midst being entertained."[5]

The author of the *Henan Education Daily* article provided little in the way of commentary to the lesson plan besides for the fact that it evidenced "Japan's wild

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[3] For an overview of SMR films, see Hanae Kurihara Kramer, "Film Forays of the South Manchuria Railway Company," *Film History* 24 (2012), 97-113.
[4] "Riben Xiaoxue," n.p. The author renders the film title as *Manzhou de nong mu.* Based on the description, the film could be *Manshū O Hiraku Nono* (Those Who Cultivate Manchuria), a 1928 title directed by Akutagawa Kozo of the South Manchuria Railway Company, although given that titles were often left in Kanji in the original, the discrepancy is inexplicable.
[5] Ibid. 实写 is left as an original Kanji expression, where modern Chinese inverts the order of the characters.

ambition to invade our country [*qinglue woguo de yexin* 侵略我国的野心].”[6] Reprinted in full and often leaving intact many of its original Kanji expressions, the lesson was allowed to speak for itself, resonating ominously in its thinly veiled imperialist language and foreignizing translation. “Cinema,” usually rendered as *dianying* (电影) was offered in its Kanji iteration as *eiga/yinghua* (映画), as if to emphasize its status as an indigestible foreign object, an objective instantiation of a malignant gaze. The lesson itself made little effort to hide this gaze, establishing a direct link between the appreciation of landscape and imperial prospecting, or the conversion of the “infinite expanse” into a *lebensraum* for Japanese empire. Although the film is not identifiable by its title, its visual preoccupations as described resonate with those of the travelogues produced by the South Manchuria Railway Company, which in scholar Jie Li’s words, represented Manchuria as “virgin land…belong[ing] to everyone and no one.”[7] Beyond the film’s form of textual address, which remains unverifiable, is the classroom exercise itself, which transposed “realistic and concrete moving pictures” onto the fixed contours of a geographic map. With its intertextual referencing, the exercise instantiated internationally circulating practices of visual instruction, which as Elizabeth Wiatr observes encouraged students to “visualize” the abstract by establishing a purposive circuit between images and verbal communication.[8] The entertaining realism of the picture—an effect of its movement and its photographic detail—solicited the student’s attention, but it was the activity of decomposing movement onto the space of the map and

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[6] Ibid.
[7] Jie Li, “Phantasmagoric Manchukuo: Documentaries Produced by the South Manchurian Railway Company, 1932 – 1940,” *positions* 22.2 (2014), 351.
[8] Elizabeth Wiatr, “Between Word, Image and Machine: Visual Education and Films of Industrial Process,” *Historical Journal of Film, Radio and Television* 22.3 (2002), 334.

its written captions that hammered in the lesson's abstract ideas. Cinema and map thus combined into an imperial interface, which trained students to turn faraway lands into graspable knowledge, shortening the gap between vision and ownership. Geographic visualization thus comprised for primary school students in Sakurai, Japan a medium for "the conquest of the world as picture."[9]

But what other conquest did the plan, no longer accompanied by "realistic and concrete moving pictures," rendered in a literalized Chinese translation, and then reprinted in the pages of *Henan Education Daily,* accomplish? Left to speak for itself, what other "wild ambitions" did it voice? The history of Chinese educational cinema offers an indirect answer to these questions. Later in January, the *Daily* covered Alessandro Sardi's lecture at Nankai University in Tianjin, where he screened silent films about "Italian Fascist Party's great construction feats" as well as a sound film of one of Mussolini's speeches.[10] Although the article provided no commentary, it opened by citing the January 1 report. As the three previous chapters have shown, the introduction of educational cinema to China by means of demonstrations of educational technology occasioned the birth a disjunctive developmental imaginary. Educational cinema seized the minds of its users with dreams of conquest: the conquest of illiterate and socially heterogeneous masses, to be sure, but also the conquest of the global technical networks that presented themselves as the secret to modern power. But developmental dreams such as these were inseparable from logistical nightmares. Their contingency on globally uneven flows of equipment, talent, and design norms and the messy materiality of their

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[9] Heidegger, 134.
[10] "Guolian jiaoyu weiyuan Sa di yanjiang dianying yu jiaoyu," *Henan jiaoyu ribao* (22 Jan, 1932), n.p.

use were sources of distortion, condensation and displacement. In the previous chapters I have found such nightmares variously in the imperfect divide between commercial and educational industries (chapter 1), the transposition of dissynchronous industrial temporalities into text-image disjuncture (chapter 2), and the dispersive relationship between mass literacy and "electrified education" in its figurative promiscuity (chapter 3). In this chapter, I take up the thread referenced in the final part of the previous chapter, where I argue that the displacement of literacy onto technological circuits makes communication coextensive with logistics and thus war. I focus specifically on how educational cinema comprised a spatial practice, navigating and reshaping the heterogeneous affective, technical, and physical geographies of nation building in the semi-colonial modern. Whereas as literacy acquisition involved the patient rearrangement of the capillary desires connecting writing to multiplicitous circuits of use and social reproduction, electrified education dreamed of paving over these labyrinthine routes with millions of miles of highway and rail. At the intersection of these two network imaginaries, with their drastically different speeds, Chinese educators made films, drew up teaching plans, trained technical and pedagogical talent, and authored hyperbolic but anxious statements.

Whereas the previous chapter traced the rhetorical profligacy of this ensemble of developmental strategies, this chapter will adhere to the specific textures of films and mobile screening practices. In the first third, I examine the "geographic and scenery film," the second most voluminous category of Jinling University productions. As I argue, the geographic scenery film—which I will call the "scenery film" for short—is less a genre designation as a paradigm for reading Chinese-produced educational films. The very

impetus for domestic production was, after all, driven by intense geographic anxieties, such as the ones aired in the pages of the *Henan Education Daily*. Scenery films drew their narrative techniques from the international tradition of filmed travelogues, a genre of imperialist visual culture *par excellence*; they thus comprised equivocal sites of textual production aimed at suturing landscapes and the people who populate them into a developmental narrative. Envisioned as a way of popularizing the nascent tourism industry for populations who did not travel, scenery films posed the question of how nation could become a category of geographic knowledge. The question was raised but never answered, since unlike in the Sakurai elementary school, the circuit between seeing and knowing also involved the messy problem of self-knowledge, outside the purview of the instructor's lesson plans. In the second part, I discuss the spatiality of mobile projection practices, arguing, in concordance with chapter 3, that what audiovisual educators could not integrate narratively they displaced into the logistical and technical realm. Here, I return to the Jiangsu Provincial Mass Education Center in Zhenjiang as a case study for educational film screening as spatial practice. As I argue, in both its fixed and mobile screening sites, the mass education center was preoccupied with mobility. Its work was closely linked to Zhenjiang's development as a provincial capital integrated into the regional framework of high-speed transport, on the one hand, and a network of persistently used alleys, canals, and footpaths, on the other. The prolific screening guides, diagrams, and teaching manuals published by the Center make visible the uneven speeds at stake in mass education, which the parallel advent of ambulatory projection cars and radio "schools in the air" also sought to ameliorate. In the final part of the chapter, I follow the Zhenjiang Center mobile projection car—now known as "national projection

team number one"—West to wartime Chongqing. Untangling the new technological, diplomatic, and ethnological milieu of Western China—a veritable internal frontier—I conclude with a series of questions connecting the myriad loose ends of the ill-fated educational film project to the postwar and cold war milieu.

Landscape Anxiety

> 5. Landscape is found in all cultures.
>
> 6. Landscape is a particular formation associated with European imperialism.
>
> 7. Theses 5 and 6 do not contradict one another. – W.J.T. Mitchell[11]
>
> Landscape might be seen more profitably as the 'dreamwork' of imperialism, unfolding its own movement in time and space from a central point of origin and folding back on itself to disclose both utopian fantasies of the perfected imperial prospect and fractured images of unresolved ambivalence and unsuppressed resistance." – W.JT. Mitchell[12]

As motion picture and as textual residue printed in the *Henan Education Daily, The Peasants and Shepherds of Manchuria,* as well as the Chinese scenery films I analyze below, could be approached as test cases for the perplexing seventh thesis of W.J.T. Mitchell's germinal 1994 essay "Imperial Landscape." Insisting that landscape is not a genre of painting but a "medium of exchange," Mitchell reads the former as a *topos*

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[11] W.J.T. Mitchell, "Imperial Landscape," *Landscape and Power,* ed. W.J.T. Mitchell (Chicago: University of Chicago Press, 1994), 5.
[12] W.J.T. Mitchell, "Imperial Landscape," 10.

where power struggles over nature, vision, property, and labor are played out.[13] On the one hand, "the semiotic features of landscape, and the historical narratives they generate, are tailor-made for the discourse of imperialism, which conceives of itself precisely (and simultaneously) as an expansion of landscape understood as an inevitable, progressive development in history."[14] Insofar as, in Edward Said's words, imperialism comprises a "geographic violence through which virtually every space in the world is explored, charted, and finally brought under control," landscape painting offers an aesthetic supplement, rendering the conjunction of vision and violence palatable by transforming lived social and political worlds into natural scenery.[15] On the other hand, as Mitchell suggests, imperial landscapes do not come ready-made, but are the product, in each instance, of work where the gaze is provoked and then tamed. For Mitchell, landscapes are palimpsests of asymmetrical communication, where the artist deploys painterly conventions—lines that connect foreground with background, the presence of lead-in figures, the anchoring points for the horizon, and the chromatics of the palette—to journey out into the unfamiliar, to tame its malevolent alterity, and bring it back in a digestible and palatable form. In some landscapes, however, such a battle is not won—if by design—and what pretends to be the calming view of an expansive vista encodes within it an alien gaze, which stares back at the beholder, challenging her rights over the visual field. As is evident from the way he describes the unfoldings and foldings of landscape in imperialism's "dreamwork," however, the center always holds: in the

[13] Mitchell, 5.
[14] Mitchell, 17.
[15] Edward Said, *Culture and Imperialism* (New York: Alfred Knopf, 1993), 221.

landscape painting, the dreamer goes to sleep and wakes up in the comforting abode of the imperial metropole.

In Mitchell's view, thesis number seven insists on the historicity of landscape; that landscape is found in every culture does not obviate the fact that for his readers—perhaps for all moderns—landscape as such is only intelligible through the historical fact of European imperialism. The history of perception is irreversible, which is why, perhaps, the efforts by artists at the colonial periphery to appropriate landscape (and other realist conventions), despite all efforts to the contrary, leave inside their works the presence of a malevolent alien gaze.[16] The title of this chapter, "landscape work," while deriving from Mitchell's analysis, which links landscape to Freudian dreamwork, also departs from him. The "work" I am interested in implies less the unconscious process of imperial fantasy, with its desires, distortions, censorships, and suppressed ambivalences, but the all too conscious—and others might say contrived—effort on the part of those who are more often the objects of imperial landscape to master a visual structure that was not made for their eyes.

Similar to the paintings and photographs that Mitchell analyzes, the filmed travelogue participates in the visual repertoire of imperial landscape, adding to its communicative structure the dimension of technical reproducibility and mass address. Emerging out of a broader horizon of virtual tourist practices in the U.S. and Europe—from stereopticons to dioramas—travel cinema grew over the first decade of the medium's existence to become "one of the most popular and developed forms of film practice in the pre-nickelodeon era," in part because it was able to latch onto the already

[16] Mitchell, 29. In some cases this alien gaze is that of the Western art critic.

extant screening infrastructures of itinerant travel lecturers.[17] Taking place within "the context of feverish production of views of the world," travel actualities occasioned, in Tom Gunning's words, "the consumption of the world through images," which bore a direct relationship to the context of high imperialism, with its war-driven infrastructure development and colonial expansion.[18] Transforming colonial domination into vivacious exotica, early travel films "commodified alterity by means of a consumable package of voyeuristic pleasure and rationalist rhetoric of uplift, comfort and affordability," writes Allison Griffith; as such, they comprised, in Noël Burch's terms a "banalization of the scandal of colonization."[19] Yet, as Gunning argues, the specific aesthetics of early cinema also rendered them sites of ambivalence and anxiety. Making little effort to hide the aggressiveness of the colonial gaze under the veneer of narrative integration, travel films encoded within them an asymmetrical struggle over vision.[20] Being a medium that recorded movement with photographic irreversibility, moreover, travel *cinema* risked chance encounters that undid its carefully composed tableaus, including but not limited to the subject's returned gaze. Gunning, for example, cites the case of the Edison actuality *Native Woman Washing a Negro Baby in Nassau, B.I.,* where a condescending view of a baby being washed is interrupted when the camera swiftly pans to capture a group of spectators gathered to ogle at the cameraperson and who subsequently dash out of the

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[17] Charles Musser, "The Travel Genre in 1903-1904: Moving Toward Fictional Narrative," *Iris* 2.1 (1984), 47.
[18] Tom Gunning, "The World Within Reach," *Virtual Voyages,* ed. Jeffery Ruoff (Durham: Duke University Press, 2006), 32.
[19] Allison Griffith, "To the World the World we Show: Early Travelogues as Filmed Ethnography," *Film History* 11.3 (1999), 285. Burch quote from p. 298, n94.
[20] Gunning, 30.

frame.[21] Showing "what possibly no other form of travel representation could represent, the escape of its subject," travel cinema offered perhaps more poignantly, and less consciously, than the landscape painting, a medium in which the "unresolved ambivalence, and unsuppressed resistance" of the colonial encounter are played out in the field of vision, movement, and time.[22]

Such analyses of revenge, escape, ambivalence and resistance, despite appearing to be grounded in the cinematic text itself, nonetheless presuppose a certain kind of empirical spectator, one situated in the imperial center for whom travel views comprised a journey outward, into the space recently conquered by armies, railroads, and technical networks. As this chapter's opening anecdote suggests, however, such textual indeterminacies—whether narratively sublated or not—appeared quite differently in front of the eyes of those in the colonized and semi-colonized world. In the early-twentieth century, Chinese intellectuals and policymakers demonstrated persistent concern that China had become a prize destination for filmmakers hoping to profit off images of an ancient land caught in the ravages of war and social upheaval. From cinema's very beginning, the widespread circulation of actualities, dioramas, postcards, and re-enactments reveling in the victory of the allied armies over the Boxer Rebellion (1899-

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[21] Gunning, 39-40.

[22] Mitchell,10. Gunning, who misinterprets the passage from Heidegger I have placed in the epigraph to mean "the metaphysical (and destructive) nature of modern Western man views the world as something that can be appropriated through becoming a picture" (33), recovers some of Heidegger's nuance in his film analysis. The decisive point of Heidegger's exposition is that in transforming the world into picture, man also risks losing his place as a secure bastion of seeing and becomes too part of the picture. To gaze upon "the world" is not *necessarily* to appropriate it but to have it be put in front of us; *it* has the power grasp *us* as we have to grasp *it,* but the relation is never symmetrical. The emergence of Western subjectivity as a wound or a Being-deficit in the modern derives precisely from this "poverty of world." However, I am more interested in the emergence of other modern Being-deficits, not necessarily based in the Western onto-theological tradition (or the desire to confuse moderns for Greeks).

1901) keyed elites in to the fact that cinema existed as part of "a burgeoning global media network which reflected the attitudes, and interest, of imperial powers which dominated East Asia."[23] Disseminating denigrating depictions of Chinese in fiction films and flooding Chinese theaters with unruly images of urban extravagance, crime, and sexual mores, cinema of the first half of the twentieth century comprised a sore reminder of treaties of extraterritoriality, which challenged Chinese sovereignty on the basis that domestic laws and institutions had yet to meet European standards of civilization. "Visual technologies," in Johnson's words, "further reinforced the encirclement of Chinese territory by imperialist agendas."[24]

As I discussed in the first chapter with my reading of Lu Xun's experience in the Sendai classroom, the educated Chinese spectator was unable to take in the "view" of other Chinese without finding himself caught up in "worry about China." Indeed, over the course of the 1920s and 1930s, the criticism and protest of Hollywood films deemed to insult the Chinese (*ruhua yingpian* 辱华影片) formed a veritable stage for nationalistic media discourse, which in turn resulted in state action. In his 1934 history of the National Educational Cinematographic Society, Guo Youshou references as one of the Society's inspirations a famous incident involving the playwright Hong Shen, who, fed up with the depictions of a vicious Chinese gang in Harold Lloyd's *Welcome Danger* (1929), stood

[23] Matthew D. Johnson, "'Journey to the Seat of War': The International Exhibition of China in Early Cinema," *Journal of Chinese Cinemas* 3.2 (2009), 110. The concept is fully developed in Matthew Johnson, "International Wartime Origins of the Propaganda State: The Motion Picture in China, 1897-1955" (Doctoral Dissertation University of San Diego, 2008).
[24] Johnson, "Journey to the Seat of War, 110.

up at the front of the theater to deliver an extemporaneous speech in protest.[25] The incident resulted the film being banned after an outcry across Shanghai's educated circles. Guo's history also included the full text of a petition drafted by the censorship board, demanding that Paramount rescind and destroy all copies of Sternberg's *Shanghai Express* (1932), including the negatives, within ten days, on the pain of having all its screening permits in China temporarily suspended.[26] The call for an increase in domestic productions, as well as the call for educational production, drew in each case on the geographic consciousness that the Chinese had little control over the way they were visualized in what Rey Chow has called the "commodifed media frame."[27] "In this sense," as Matthew Johnson notes, "the origins of Chinese cinema lie well beyond the narrower bounds of Chinese film-making and indigenous aesthetic traditions (e.g. "shadowplay," or *yingxi* 影戏), and must also encompass the broad narrative of fraught, often antagonistic cross-cultural relations."[28]

Yet, the desire to be more than a "landscape" for others to feast their eyes on also brought Chinese spectators into affective circuits that went quite beyond the bounds of a specifically national identity built on a racial or territorial imaginary. In a 1933 essay entitled "Film Lessons," Lu Xun describes the scene in a Shanghai movie house, with similar contours to what witnessed in the Sendai classroom, except for this time with a different set of characters:

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[25] See a description of this in Zhiwei Xiao, "Anti-Imperialism and Film Censorship during the Nanjing Decade," *Transnational Chinese Cinemas: Identity, Nation, Gender,* ed. Sheldon Lu (Honolulu: University of Hawaii Press, 1997), 39.
[26] Dianying jiancha weiyuan hui, "Dianying jiancha wei yuan hui cheng" in *Zhongguo dianying ni bu zhi dao de na xie shi'er,* ed. Sun Jiansan (Beijing: Shijie tushu chuban gongsi, 2010), 29.
[27] Rey Chow, *Entanglements, or Transmedial Thinking about Capture* (Durham: Duke University Press, 2012), 163.
[28] Johnson, "Journey to the Seat of War," 111.

> Upstairs you saw the whites and the wealthy; downstairs were "the noble Han progeny" belonging to the middle and lower classes. On the screen there appeared white soldiers at war, white gentlemen getting rich, the white misses marrying, white heroes exploring [the world], commanding the respect, envy, and fear of the onlookers, who knew that they couldn't do what they saw themselves. But when the white hero is out exploring Africa, there would be black servants there to guide him, guard him, fight for him, to die in his stead—all so Master can get home safely. When he starts out on his second expedition, the loyal servant is no longer to be found. [The hero] remembers the dead and his face drops. On the screen and in his recollection there appears the black face. In the dim glimmer, the audience's yellow faces are probably also dropping: they have been moved.[291]

In the longer discourse, Lu Xun compares the black servant to Mucheng [Mocheng] from the Peking opera *A Cup of Snow,* a trusted servant and look-alike who offers to die in place of his master, the latter whom has been sentenced to death for offending a high official.[30] Describing the performance of *A Cup of Snow* in his native town Shaoxing, Lu Xun observes that while the audience had mostly been indifferent to the narrative content of the operas they watched, in Mocheng's "solemnly stirring movements and songs, the onlookers were moved; they had discovered a good example to follow."[31] What occurs under high tech auspices in the Shanghai movie house is a displaced repetition of this historically structured mode of spectatorship, which is also a performance of political

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[29] Lu Xun, "Dianying de jiaoxun" (1933), ZZYDY, 82. The author mistitles the play as *The Beheading of Mucheng,* but according to the editors of *The Complete Works of Lu Xun*, the play he was likely referring to was the Qing dynasty Peking opera by Li Yu entitled *A Cup of Snow* [Yi peng xue].
[30] Li Yu, "Yi Peng Xue," *Zhongguo jingju xi kao*, scripts.xikao.com/play/001015012.
[31] Lu Xun, 82.

subjection. Significant in Lu's exposition of this unidentified, but typical, adventure film, however, is the fact the audience's movement of identification is not racial but structural. Always already a flattened cinematic stereotype, the African servant realizes his essence by being turned into a flashback, a spectral superimposition whose only claim on being resides in the colonizer's tears shed in one of his rare moments of sentimental repose. "In the dim glimmer," the Chinese audience is moved not by the African's self-sacrifice but by the white adventurer's tears. In the tears they come to feel their own consequence, the fact that, at their fullest, their lives can be more than foils for technological war, "to be made examples of," but also fuel for white tears. Touched by this glimmer of recognition, however slight and however reductive, the Chinese audience is transported across continents; if for an infinitesimal moment, they are drawn into a global circuitry of affect; in it, they experience both utter terror and unbearable hope.[32]

To fully trace the implications of such "film lessons" would require a separate monograph, attentive how the melodramatic imagination mediates unforeseen intimacies between continents, intimacies not drawn from false emotional depth but residing on the affective surfaces of dominant cinema's minor characters—its landscapes and its racial stereotypes. The lesson that I take from Lu Xun here is limited to the degree in which the semi-colonial spectator, as she is spoken for by the nationalist intellectual, sees "landscape"—here used in a broad sense—not from center from which it unfolds, but at

[32] Victor fan's reading of this scene as Shanghai audiences partaking in the "masochistic pleasure in misrecognizing one's political impotence as an enjoyment" touches upon the affective structure I have described, but is misleading in that it takes a psychoanalytic view on masochism, which is unable to surmise the power the masochist may find in being connected to a global economy of pain. See Fan, "Approaching Reality: Epistemic Distance, Political Crises and Temporal Imaginations in the Sino-French Dialogue on Cinema Ontology," *world picture* 7 (2012), http://www.worldpicturejournal.com/WP_7/Fan.html.

its farthest circumference. The more perfect the landscape, the more she is barred from it, to the point of not recognizing herself in the image at all—visual illiteracy. The nationalist intellectual, who *has* been taught to read such images, if imperfectly, is struck by the degree that such literacy also bars her from the masses she is supposed to represent. This reciprocal exclusion also forms the structure of cinematographic education and its texture as spatial practice, where the distance between the intellectual and the masses is rendered in the dispersal of the spectatorial imagination. The ultimate goal of nationalist visual instruction is the fantasy that one day the depicted figures in landscape could climb out of the frame, not only to escape it but to assume the perspective of its mastery.

In the West, too, such were the claims of the travelogue, which was marketed as a form of "democratic education through media," opposed to Nickelodeons seen as "dark dens of vice."[33] Travel lectures by the likes of John Stoddard and Burton Holmes were already considered serious entertainment directed at respectable middle class audiences; by popularizing the travelogue as a replacement for sensationalist fiction, reformers invested in the belief that early cinema's unruly audiences—primarily immigrants, women and children—could be brought under "bourgeois standards of 'temperance, thrift, chastity, social purity, and the accumulation of wealth'."[34] In her extensive monograph *Education in the School of Dreams,* Jennifer Lynn Peterson makes two observations about this history that will be relevant to the argument I develop in the pages below: first, that after being introduced into the repertoire of itinerant travel lectures, silent actualities

[33] Jennifer Lynn Peterson, *Education in the School of Dreams* (Durham: Duke University Press, 2013), 107.
[34] Peterson, 106.

occasioned a decided shift in the lecturer's rhetoric from personalized exposition to objective description.[35] Whereas the still slides previously used as visual aids were integrated as props for the travel lecturer's personal charisma, cinema, with its movement, appeared in a certain sense to steal the show, diverting the locus of enunciation from the lecturer's authority as traveler to the film itself. At the same time, however, the presence of the lecturer at travelogue screenings resulted in the evolution of a fragmented and impressionistic editing style distinct from Hollywood continuity, sustaining much of the "view aesthetic" of early actualities while organizing the passage of a journey by means of arbitrary transitions.[36] Insofar as the narrator remained present at the scene of exhibition, no internalized "narrator system" (as Gunning calls it) was necessary to sustain legibility.[37]

By 1915, as Rick Altman observes, the travel film had already evolved from a prop at the disposal of itinerant lecturers to an industrial commodity meant to subsist on its own; yet, as Peterson's analysis insists, it maintained its distinctive aesthetic, one that John Grierson famously impugned when he distinguished the Flaherty-style "documentary" from the "lecture film."[38] Whereas lecture films "describe, even expose, but, in any aesthetic sense, rarely reveal," the documentary passed from "the plain (or fancy) descriptions of natural material, to arrangements, rearrangements, and creative

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[35] Peterson, 23-62.
[36] Peterson, 209.
[37] Tom Gunning, *D.W. Griffith and the Origins of American Narrative Film* (Urbana IL: University of Illinois Press, 1991).
[38] Altman, "The Early History of Travel Films," in *Virtual Voyages* (op. cit.), 61-78; John Grierson, "First Principles of Documentary (1932-1934)," in *Nonfiction Film Theory and Criticism*, ed. Richard Barsam (New York: Dutton, 1977), 20.

shapings of it."[39] Peterson, however, finds that due precisely to their fragmented form and their lack of interest in aesthetic totalization, travelogues were beset by semiotic instability, thus offering themselves as sites of "contemplation" and "poetic reverie."[40]

Since the reintroduction of early cinema as an object of film study in the 1990s, the scholarly literature on travelogue has become vast, yet few studies follow its development beyond 1920, after the advent of documentary the consolidation of commercial features as the industry dominant. It was indeed in the educational sphere that short travel films survived mostly intact, with their minimal continuity (not exceeding four or five linked shots) and their reliance on intertitles to bridge great geographical and temporal distances. When combined with the classroom lesson, which was precisely meant to still the confusion (or the "contemplation" and "poetic reverie"), "glaring incongruities between image and text passed as comprehensible narratives, aided by the visceral appeal of increasingly aestheticized images."[41] Elizabeth Wiatr's analysis, although focused on Eastman industrial titles, is equally applicable to its geography films, which included films such as *Hawaiian Islands* (1927)*, East Indian Islands,* and *Alaska,* all of which were available in the Shanghai National Educational Film Distribution Office catalog. In these travel films, what occasioned disjuncture was less the multiplicity of industrial production as the need to reduce an overwhelming set of details about a given locale into a comprehensible one to two-reel survey. In *Hawaiian Islands* (figure 4-1), which runs slightly over sixteen minutes, the loose continuity between different

[39] Grierson, 20.
[40] Peterson, 209.
[41] Wiatr, "Between Word, Image, and Machine," 349.

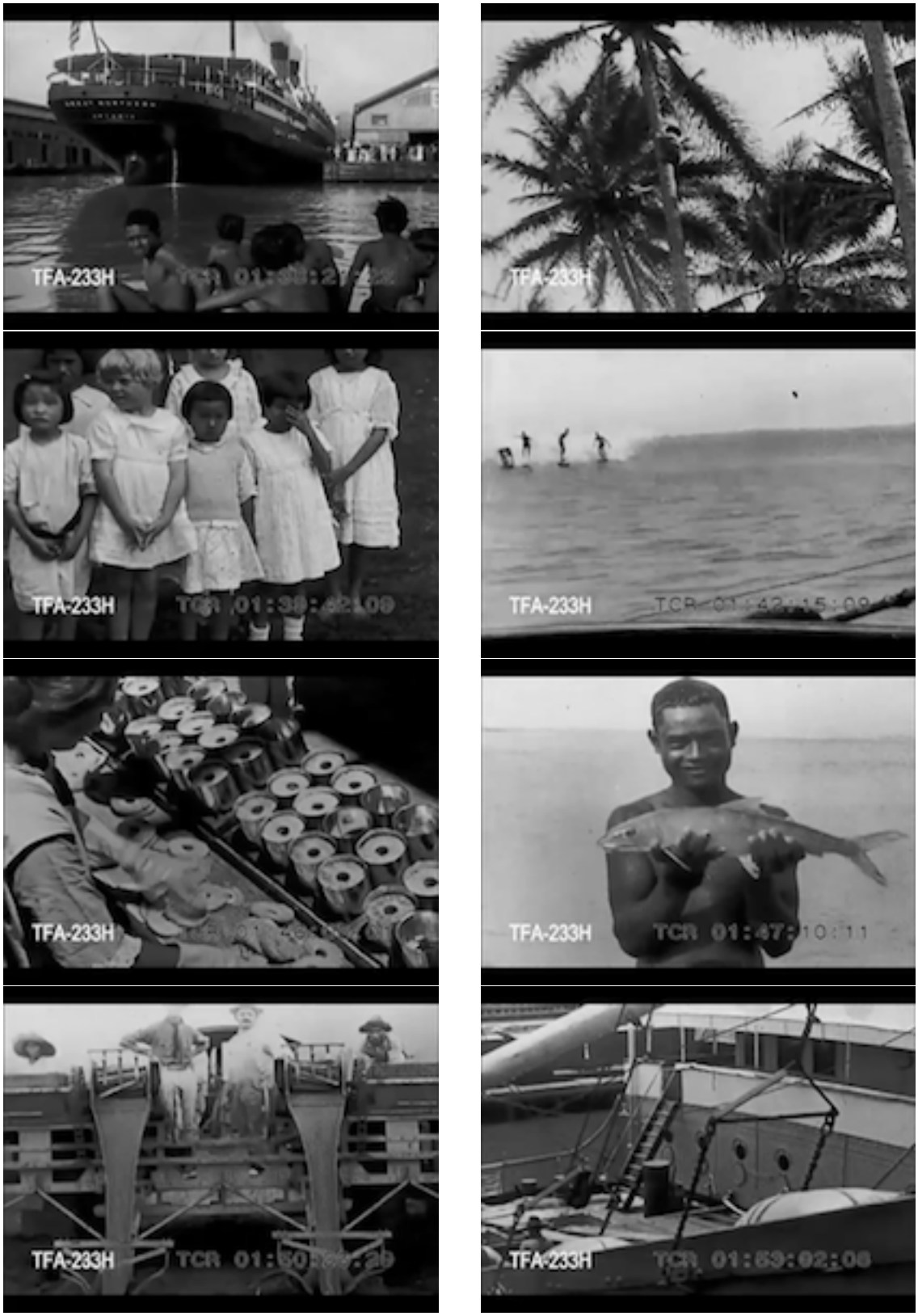

Figure 4-1: Stills from Hawaiian Islands (1927)

attractions is justified by the motif of travel itself. Beginning with the open sea, then the arrival of an ocean liner in the harbor, the film proceeds to document a series of attractions: a native climbing a palm tree, a gaggle of interracial schoolchildren ("Hawaii is the meeting place of races—white yellow and brown"), streets, beeches, waterfalls, the pineapple plantation, the pineapple canning factory, natives fishing, natives preparing food, scenes of leisure, the sugarcane plantation, and the sugar factory, before concluding on close-ups of molten lava at the peak of Mt. Kilauea.[42] This heterogeneous set of materials is held together by nothing less than the fact of travel itself, made visible in the alibi of the ocean liner; yet as any close inspection of the images would reveal, the alibi is full of holes, since the first shot of the ocean liner is taken on a motorboat from behind the backs of a group of teenagers returning to the ship. The teenagers, in turn, interact with the filmmaker, and are subsequently shown swimming in the water. Rather than being a metaphor for transit, the "arrival" is but one in a series of gags, and although the filmmaker demonstrates a basic sense of visual poetics (like opening with the sea and concluding with the lava), the attractions are connected only by virtue of their shared geography, with the exception of the extended forays into the industries of pineapple and sugar. Indeed, the film's preoccupation with these two industries, which it depicts by following each step of the process from plantation to the shipping of the final product, speaks to the degree that "geography" and "industry" are folded into each other, albeit in an asymmetrical manner. Unlike in *Cotton Growing* (Chapter 1), however, which has pretentions to universality, the industries depicted in *Hawaii* are snugly situated within the geography itself; despite the modern methods depicted, the industries belong to the

[42] The film can be viewed at the Travel Film Archive, http://www.travelfilmarchive.com/item.php?id=13056 (Accessed 19 May, 2017).

landscape, at least until their final products are shown to be loaded on ships for export. Ending in mass-produced product, the film establishes, finally, a solid connection with the world of the student's experience, where canned pineapples and refined sugar were commonly seen on store shelves. It is in this reverse flow that the ship acquires its metaphorical value, drawing the student into the metabolism of global commodity chains, which are then ideologically conflated with the promise of travel. In this special case of commodity fetishism, the colonial product is imbued with aura instead of value, here expressed not in price but in the democratizing dream of travel. As my analysis of *discontinuity* has attempted to tease out however, in filmed travelogues the spectator is not centered in the same way as she would be in narrative continuity. While the ship, the canned pineapple, and the sugar work as metaphors for the spectator's presence at the scene, they do not integrate him into the visual flow of the film, but rather place him at the edges of the image, in a state of fluid perception channeled to some degree by familiar infrastructures. This fluidity is then nailed down by the intertitles and, in turn, the classroom exercises, which transform disorientation into knowledge, but before this process takes its course, the student-spectator is drawn into the film's deterritorializing networks, suffering a strong case of what Walter Benjamin would have called "empathy for the commodity."[43]

What, however, would such a film look like without its synch points, without strong identifications with the commodities and the ocean liners on display? The question can in no way be answered empirically, since any statement made on it would tend to reflect available epistemological categories, as emblematized by mass educators Liu

[43] Walter Benjamin, "Reply," trans. Harry Zohn in Bloch et. al. *Aesthetics and Politics: Key Texts of the Classic Debate within German Marxism,* ed. Ronald Taylor (New York: Verso, 1980), 140.

Zhichang and Jiang Shecun's characteristic complaint that, for people "not even familiar with the contours of their own country…a film about another country's national situation will of course not pique their interest (*xingqu* 兴趣)."[44] In a review of *East Indian Islands*, a film about "indigenous peoples' arts and crafts, life and customs etc." in Bali, Zhou Kaixuan, audiovisual head of the Zhejiang Provincial Mass Education Center in Hangzhou, writes: "it is easy to see that arts and crafts are naïve, their lives simple and crude, and their customs are not worth emulating. Although the audience was able to sustain their curiosity for a time, they were not able to hide their distasteful impressions."[45] Conceptualizing the images provided by the film as objects for emulation rather than ethnographic knowledge, Zhou is disappointed to discover that what is pictured does not inspire. He thus misses the entire point of imperial visual culture, which is to reduce the Other to a foil for one's own sense of mobility, freedom, and knowledge. Zhou's comments nonetheless remain telling insofar as they describe the film's reception as being an encounter characterized by "curiosity" and "distasteful impression" (*buliang de yinxiang* 不良的印象), unmediated by what in landscape painting would be called "lead in figures," namely, the ships, commodities, and modern industries whose perspective the viewer borrows (as I have argued in *Hawaiian Islands).* Without the sense of familiarity that condenses one's perception in such figures, the eyes are prone to wander throughout the images, which in their photographic detail and movement would be confounding. The problem observed by the British colonial projectionist William

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[44] Liu Zhichang and Jiang Shecun, "Jiaoxue dianying bianzhi ju lie," *Zhonghua jiaoyu jie* 24.5 (1936), 59-60.
[45] Zhou Kaixuan, "Keda jiaoyu yingpian pingshu," *Zhejiang minzhong fudao ban yuekan* 3.2 (1936), 95.

Sellers, where native audiences would see the chicken crossing the road rather than follow the main plot of the film, holds here as well.[46] Siegfried Kracauer, who in *Theory of Film* took Sellers to task on why *he* didn't notice the chicken until repeated viewings, argues for a more naïve realism based on photographic indexicality, but this argument is only peripherally useful here, since what is at stake is not film as an aesthetic object, but aesthetics as a tool for laying claim to the real.[47]

As I have said in chapter 1, the failed project of gaining perspectival mastery over the picture nonetheless occasions a new form of subjectivization, built on failure as a site for posing and re-posing the problem of self. Whereas there, failure was conceived as constitutive lack, here it will offer, for us, a navigation map for educational cinema as spatial practice. Mitchell's version of imperial landscape as a medium that opens out from the center will be only of limited use on this terrain, which is not of representation and ideology but of practice. Not only are the landscapes I describe contested, but the space around them is as well; on their rough edges, even the most unified landscapes are one way tickets with no promise of return.

I will refer here to Henri Lefebvre's distinction between *spatial practice, representations of space,* and *representational space*, which offers a theoretical basis for thinking space in simultaneously navigational, representational, and semiotic terms.[48] Spatial practices, or the embodied navigational tactics of "living" a space rely, in turn, on representational forms such as maps, horizons, skylines, and verbal descriptions. On the one hand, scientists, planners, urbanists, technocrats, social engineers, and certain artists

[46] Larkin, 115
[47] Larkin,115.
[48] Lefebvre, 38.

produce representations *of* space to lay hold of it as an external reality. On the other hand, representations can also be *inhabited*, deciphered as disjunctive symbols and images, and thus transformed into what Lefebvre calls "representational space." As thoroughly interwoven threads of a productive process, spatial practice, representations of space, and representational space are not to be distinguished as "types" of space but taken as analytical categories by which the "same" space is cut up. For Lefebvre, the rationalist abstractions that define modern modes of urban planning and social engineering do not stand opposed to the disjoined figures produced, for example, by paintings of the European avant-garde. Both participate in a space that is "at once *homogeneous* and *broken,*" the former in the violence exerted by forcing historically heterogeneous segments together into the abstract overview of the plan, the latter in the reduction of the canvas to pure surface on which the jarred edges of mutilated figures could be made to appear. As "a cohesion grounded in scission and disjointedness," what Lefebvre calls the "contradictory space" of modernity presents itself as a doubled construct, in which the impulse to standardize and homogenize is dialectically linked to its opposite.[49] In their attempts to produce representations *of* space, that is, to erect and stabilize landscapes, Chinese educational film practitioners transformed their films and their teaching guides into representational spaces, multiplicitous signifying networks that, in the last instance, map the global in its uneven development. The contours of this map, by which uneven development generates representational indeterminacy, must of course be elaborated specifically, as I will do below.

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[49] Henri Lefebvre, *The Production of Space,* trans. Donald Nicholson Smith (Cambridge, MA: Blackwell, 1991), 308.

The "Geographic Scenery" Film

The spatial and thematic heterogeneity of the genre "geographic scenery film" (*dili fengjing pian* 地理风景片) can be surmised from its entry in the Jinling University film catalog of 1947, authored by Sun Mingjing.[50] The catalog, which was constructed from memory, contains many discrepancies, which the historian Shi Xingqing has carefully sorted out with reference to original source material.[51] Out of the ninety-eight films listed therein, the thirty-one that fell under the category included films about urban sights, famous tourist destinations, ethnic minority rituals, and strategic infrastructure. Place names were unevenly distributed. Major identifiable cities and tourist sites had films dedicated to them, for example *Shanghai, The Famous Sites of Suzhou, Our Capital* (Nanjing), *Scenes from Qingdao, Beiping, the Old Capital*, *Huangshan,* and *Scenery at West Lake*, while less prominent locales were surveyed in films taking on entire provinces, for example *Guangdong Province, Fujian Province, Guangxi Province,* and *Suiyuan Province.* This pattern, however, had exceptions. Films about smaller towns such as Guiling, Lianyungang city, and Yantai were also produced, although usually because the locations were near those of other projects (for example, the scenery film *Yantai Handicrafts* was made alongside the commissioned industrial title *Yantai Embroidery*). Once Jinling University relocated to Chengdu during the war, Sun Mingjing shot films about China's western border regions, such as a series on the newly christened province of Xikang, *The Southwest, Water Conservancy in Guang County,* and *Qinghai Provincial*

[50] Shi Xingqing, *Minguo jiaoyu dianying yanjiu, yi Sun Mingjing wei ge an* (Beijing: Zhongguo chuanmei daxue, 2014), 203-212.
[51] The total number, including films uncovered outside of the catalog, adds up to 212. However, as Shi points out, some of these films are in fact not Jinling productions. Shi, 212.

Capital Xining, as well as films with an explicit travel theme, such as *From Chengdu to Xining* and *From Chengdu to Lanzhou*.

The heterogeneity of the subjects within this category should come to little surprise, given the fact that the category itself was a post-facto designation beset by the general instability of non-theatrical production and exhibition practices. What is indeed misleading about the scenery label is the fact that it creates the impression of clear generic boundaries, where the films themselves were produced on a far more ad-hoc basis. Chen Lifu's five "films that China needs"—films that promoted national spirit, production/reconstruction, civics, revolutionary spirit, and scientific knowledge—guided production priorities. However, owing to the vagueness of such mandates, they did not do so in a definable way. More often, the films were made as a result of specific circumstances of travel, institutional contacts, and coproduction. Indeed, as Shi Xingqing has shown in his thorough fact checking of the 1947 catalog, a large number of the films listed therein were not produced in an official capacity, and some that were attributed to Sun Mingjing were not filmed by Jinling personnel at all.[52] Underscoring the degree to which verbal labels only tangentially laid claim to the films they sought to designate, a large number of industrial education titles doubled as scenery films, especially if they highlighted the geographic situatedness of production, as was the case in films such as *Zigong Salt Wells, Yantai Embroidery,* and *Porcelain.* In what follows, I take the "geographic and scenery film" not as a particular generic coding but a paradigmatic category with which to read the sprawling network of spatial motifs at work in Jinling University productions, both those within and outside the label in the 1947 catalog. Each

[52] For example, *Shanghai.* Shi Xingqing, 103.

"landscape" presents itself here as a fragment of a larger landscape, yet each is shot through with indeterminacy and fragmentation.

Like the travelogues I have discussed above, Jinling scenery films pursued a fragmented narration punctuated with brief moments of continuity editing and the liberal use of titles to attenuate transitions. This fragmentation at the level of editing, however, did not preclude a certain organization of vision, which was in fact mapped onto the geography itself as it is carved out by architectural configurations and infrastructural networks both old and new. Across these films, a series of shots repeat: panoramic landscapes, as well as framed shots of gates, towers, statues, transport, train stations, schools, parks, and mountains. As key "lead in figures" that orient the visitor to a city or a historic site, such views openly modeled those intended by the built space itself: panoramas were taken from hilltops, often with the eaves of pavilions designed as viewing platforms visible on the top edge of the screen; meanwhile, gates—shot frontally—inscribed the experience of travel with specific place names and definite thresholds. The ambulatory experience of traveling to a location, with its overwhelming possibilities for filming, was thus anchored in a repertoire of recognizable names, institutions, and iconic views, where roads, train stations, and transportation vectors such as boats, mules, and bridges allowed the cinematographer to subject a variety of images to the grooves of touristic cartography, constituting "attractions" that both defined the uniqueness of a place and its equivalence with other places.

Famous Sites of Suzhou (*Suzhou mingsheng* 苏州名胜)*,* for example, takes the spectator on a tour of the ancient city, a veritable "Venice of the East," by a path recognizable to any middle-class Chinese tourist who had been there. Filmed by Sun

Mingjing between 1936 and 1937 (although the catalog claims 1934)[53], *Famous Sites of Suzhou* employs diegetic lead-in figures in the form of four young women, all Jinling Women's College (known in English as Ginling College) students, one of whom is Sun's friend and future wife Lü Jinai. Opening with a series of pans from a high angle across rooftops in one of Suzhou's famous Classical Gardens, the film follows the women to the Soochow University Campus, Lingyan Mountain, King Wu Well, Taiping Mountain, the train station, and Huqiu tower. Such an itinerary could be found on any tourist map circulated in the 1930s as well as the many written travelogues. In a 1933 issue of *Student Literary Compendium,* for example, one finds a travelogue by the Shanghai-based Wang Shuming, who joined an "expedition group" (*kaocha tuan* 考察团) for a daytrip to Suzhou in order to "have some fun."[54] Wang's itinerary took him from the train station to Huqiu Mountain, the Lion Grove Garden, the Lingering Garden, the urban center, and the Beisi Pagoda; in a similar fashion to Sun Mingjing's film, Wang's writing describes scenes, locales, and stele inscriptions by famous historical figures. Beginning by narrating the scenery unfolding before him on his two-hour train ride, Wang leads the reader into the landscape, with its series of pre-prepared sites.[55]

As Dean MacCannell argues, modern tourism comprises a "mysterious institutional force" that "operates on the totality in advance of the arrival of tourists, separating out the specific sights which are attractions."[56] The attraction, composed of tourist, site, and marker, delineates the object of modern ritual, in Erving Goffman's

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[53] Shi Xingqing finds no mention of the film in official NECS material. He surmises that the film is from 1936-7 because of the military presence at the train station. See Shi, 104-5.
[54] Wang Shuming, "Suzhou mingsheng ji you," *Xuesheng wenyi yekan* 4.7 (1933), 30.
[55] Wang Shuming, 30-44.
[56] Dean MacCannell, *The Tourist: A New Theory of the Leisure Class* (Los Angeles: University of California Press, 1999), 42.

words "a small patrimony of sacredness" separated from society yet nonetheless embedded within it.[57] The process of constituting a tourist attraction, according to MacCannell, involves multiple stages of sacralization: first, marking the site (or sight) as a tourist attraction in guides and governmental decrees; second, creating physical barriers to "fram[e] and elevat[e]" the site; and finally, reproducing the site in photographs, prints, and models.[58] Such processes separate "the tourist attraction" from the totality of scenery at a given location, making it distinctive and unique, while at the same time rendering each site (or sight) exchangeable through its reproductions and its imbrication within a shared symbolic code. For MacCannell, there is a tension between the exchange value and the uniqueness of an attraction, and this presents for him an opportunity to revise Benjamin's statement on the aura. He argues that in the case of tourism, mechanical reproduction produces rather than destroys aura, transforming travel into an experience of authenticity by dint of its remove from technological representation. Yet the postmodern pseudo-authenticity to which MacCannell refers—growing out of the fully saturated capitalism of the U.S. context—is iterated differently in the early twentieth century. As Gunning shows, travel imagery in early cinema was by no means an ersatz for the real thing, but comprised its own form of pleasure and conquest. This is demonstrated by audience interest in extreme travel experiences, such as train accidents, which offer the immobile spectator a sense of proximity denied to the physical traveler.[59] Nonetheless, the Euro-American travel film remained embedded in the broader horizons of transportation infrastructure and colonial expansion—and as I have argued above,

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[57] MacCannell, 45.
[58] MacCannell, 45.
[59] Gunning, "The World Within Reach," 38.

commodity flows as well—which imbued images with the potentiality of physical travel if not its actuality. Such networks enshrined audiences with the "belief that images can somehow deliver what they portray."[60]

Tourism was a relatively new industry in China in the 1930s, having taken off only after the spate of road and rail construction in the preceding decade. As Miriam Gross observes, by 1930, "travel in south China was faster and more secure than ever before, utilizing improved roads, railroads, and steamships," making the conditions ripe for civilian pleasure trips.[61] This situation was helped along by the fact that, in the south, an expansive system of canals carried most of the shipping traffic, leaving ample space for passenger trains.[62] While even travel to nearby locations in the 1910s and 1920s was a time consuming and often dangerous endeavor, by the 1930s the situation had changed drastically, at least in the Yangtze delta. Drawing clientele primarily from the upper crust of the middle class in Shanghai, day trips to famous cities and pilgrimage sites of the Chinese tradition were promoted as a "healthy complement to hard work in the office" and a respectable alternative to the "idle amusements" of urban entertainment culture.[63]

There was a characteristic strain of humiliation involved in tourism's development as well. The first Chinese travel agency, launched by the banker Chen Guangfu in 1923, branded itself as an explicit response to the second-class treatment the Chinese salaried class received when attempting to book trips through foreign travel

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[60] Gunning, Ibid, 30.
[61] Miriam Gross, "Marketing Tourism in Republican China, 1927-1937," *Twentieth Century China* 36.2 (2011), 121.
[62] Gross, 121.
[63] Gross, 123.

agents.[64] Chen Guangfu himself reported a bad experience at Thomas Cook, where the travel agent, busy chatting with a Caucasian woman customer, ignored him, leading the banker to decide on the spot to found his own travel agency.[65] Chinese tourism thus emerged out of a discrepancy between class standing and the social recognition that was expected to come with it, particularly within the upper echelons of the international leisure industry. The dream of travel was thus mediated by capital in its asymmetrical circulation. Cheng Guangfu's business slogan says it all: "A bank is not just to hold money, but to help those with dreams achieve their goals."[66]

In *Famous Sites of Suzhou,* the potentiality for access to modern circuits of mobility and leisure is both offered and denied to the viewer depending on whether the latter could afford to be an aspiring tourist. On the one hand, the film was likely screened at Jinling University itself and at various civil service institutions, to audiences for whom a day trip to Suzhou was a distinct possibility if not a pleasant memory. On the other hand, marketed as instructional, the film was distributed via the mass education circuit and via Jinling's own film projection network in Nanjing and its surrounding counties. There, in front of audiences "not even familiar with the contours of their own country," the film could not assume recognition of Suzhou's anchoring sights.[67] Thus, the lead-in figures—the diegetic interlocutors—assume a particular importance, since they both establish diegetic plausibility while simultaneously barring the spectator from "being at the scene"

[64] Gross, 119.
[65] Gross, 119.
[66] Gross, 120.
[67] Liu and Jiang, "Bianzhi," 59-60.

Figure 4-2 Stills from Famous Sights of Suzhou (1936/7)

themselves and presenting the film as the record of a unique experience rather than shared possibility. The tension is played out in one of the film's few continuity edits: three shots that depict the women, having reached the mountaintop, climbing onto a rock in order to gaze at the plains below (figure 4-2). In the first shot, the camera, which is

positioned behind them, takes in the picturesque landscape framed with tree branches while two figures struggle to find their footing. In the second and third shots, the camera changes positions and tilts upward to show Lü Jinai from the side at a low angle, framed against the sky and joyfully stretching out her arms after successfully scaling the rock. She turns to the camera with a laugh and gesture, a sign of victory. The scenery is inscribed within the perspective of a diegetic beholder; yet far from a free agent of vision, she enters a picture that has been composed for her. This pre-established gaze is constituted first as the attraction, already mass-mediated and supported by footpaths, maps, and guides that determine the itinerary, and second by the cinematographer, whose presence behind the camera pre-meditates the image and solicits his companions as actors. Lü Jinai's direct address to the camera and the man behind it appear as if to sign off on the play between pre-meditation and personal victory—she has won herself a view and a place inside of it.

The film proceeds by acknowledging the camera with the ease of a home movie, including shots of the group picnicking and of the filmmaker himself being carried up Taiping Mountain in a sedan chair. Such insouciant acknowledgements position the camera not as an invisible observer but a component of a broader tourist assemblage. The audience watches Lü Jinai, Sun Mingjing, and their friends as they take an outing to Suzhou. Yet, what reads as a home movie also presents itself as knowledge. Films with more serious titles such as *Our Capital* (*Shoudu* 首都 1936) also engaged in home movie-like techniques. Like *Famous Sites of Suzhou*, *Our Capital* includes shots of Lü Jinai as she picks cherry blossoms and rows a boat on Lake Xuanwu alongside grand panoramas from the top of the Sun Yat-sen mausoleum. The film also presents a

sequence of Arthur O. Rinden, one of Sun's American colleagues, playing a round of golf (figure 4-3).[68] What types of knowledge do these filmmaking practices suggest? And how do they work for audiences with no other reference for the places they see, those without fond memories of the images portrayed?

Such questions can, of course, only be rhetorical, since, as I have argued above and in the previous chapter, the epistemological structure of cinematic knowledge is hopelessly elusive. There is no royal road except, as I will suggest below, one that is paved for armored battalions. Nonetheless, one finds within the scenery film genre precisely a type of infrastructural work, an effort to cement neural links and expand mental powers (in Tan Sitong's sense from chapter 3).

Taking Huangshan's (Yellow Mountain) development into one of the first travel destinations as his example, Gross observes how infrastructures are coextensive with mass mediation. Although Huangshan has longstanding significance in the Chinese imaginary as a site of Buddhist pilgrimage, until the mid-1930s the travel time from Shanghai was prohibitive, the lodgings—consisting of Buddhist temples serving vegetarian cuisine—wanting, and the trails dangerous. In 1934, Huangshan was designated a National Scenic Area, and a committee was established to maintain trails and develop the mountain as a site for urban leisure. Meanwhile, Chen Guanfu's agency

[68] Although the specific production and exhibition history of *Suzhou* is murky in the existing records, the expansive distribution of *Our Capital* is well documented. While it is likely that *Suzhou* was a unofficial, and possibly personal, project, *Our Capital* was commissioned by the NECS. Ten copies of the film were held at the Ministry of Education distribution center (formed in 1936), and in addition purchased by the mass education centers in Jiangsu, Zhejiang, Fujian, and Shandong. Peng Jiaoxue, *Minguo shiqi jiaoyu dianying fazhan jianshi* (Beijing: Zhongguo chuanmei daxue chuban she, 2008), kindle electronic text.

Figure 4-3 Stills from Our Capital (1936)

led group tours to the site and its magazine *Tourism Miscellany* published highly specific travelogues that reduced the anxiety of travel, transforming the mountain into "a defined geography freighted with cultural and scenic landmarks that had to be visited personally to replicate the full tourist experience."[69] Moreover, tourists were encouraged to bring movie cameras, binoculars, and thermometers, and moreover to subsequently publish their own travelogues in the agency magazine.[70] Although the mountain was marketed as a site of poetic antiquity, "touring Huangshan was an affirmation of modernity," offering

[69] Gross, 136.
[70] Gross, 138.

the urban leisure class the opportunity to "reconnect to the Chinese quintessence" now reconfigured for convenient access and urban creature comforts.[71]

In 1936, Sun Mingjing shot *Huangshan* (黄山)*,* a film made possible by the new roads, trails, and markers. Although the print of the film is not available for viewing, its synopsis, published in *Science Education,* speaks to the type of knowledge it attempted to inculcate: the synopsis included driving directions to the mountain from Nanjing, Hangzhou and Anning, a breakdown of the scenic area's commercial and lodging districts, and maps marking Huangshan's trails and scenic locations. Undoubtedly, the film itself was enabled by the new infrastructures—the new roads, trails, markers, hotels, and scenic maps—which it transformed into knowledge.[72] Thus, the appearance of gates, markers, trails, roads and train stations in the films are themselves alibis for the film's own condition of possibility, as in the case of *Hawaii;* they are also metaphors for the audience's own potential for travel. That class, and thus mobility, mediated both the allure and the mental consistency of such sceneries does not occlude the "landscape work" they performed, if only because the solidifying of social distinctions was not unrelated to the purposes of the modern educational project. Yet, in the 1930s, educational cinematographers did not voice such designs, which were but one of the many possibilities underneath the work they accomplished.

The synopsis for the Jinling film *Scenes from Qingdao* (*Qingdao Fengguang* 青岛风光 1936) demonstrates that tourism operated in conjunction with other, nationalist, cognitive schemas. The film's synopsis details the city's colonial history as a German

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[71] Gross, 138.
[72] Jin da lixue yuan dianying jiaoyu bu, "Huangshan Qingdao ji dongwu feiliao yingpian shuoming," *Kexue jiaoyu* 4.2 (1937), 57-8.

settlement that was returned to the Chinese government in 1922. The description then turns to Qingdao's many tourist attractions, concluding that "our country has a vast surface area. Beautiful sights like Qingdao are aplenty. But the job of developing and managing should be ours and not that of foreigners."[73] Similarly, in the same article where Liu and Jiang of the Zhejiang center complain of foreign sceneries, they offer the script of a film on Shanghai that, while detailing the city's major roads, markets, and attractions, also situates the existence of international settlements within a history of national humiliation that stretches back to the opium war.[74] Next to a shot of Nanjing road, for example, a title details an incident on 30 May, 1925, when British troops suppressed a student demonstration killing seven.[75] Roads, which function in *Suzhou* and *Huangshan* as promises of travel and alibis of filmmaking, are here envisioned to be vectors of a temporal nature as well. Connecting live action scenes to charts, maps, and long titles, "Shanghai" is lent epistemological density as a hub of regional transportation, the sixth most populous city in the world, a major node in international trade, and a site of ongoing national humiliation. Here, one finds an instantiation of what I call "infrastructure as metaphor" in the previous chapter, where the movement promised by the mention of roads snowballs into a larger concept of a nation on the move. To picture the specificity of this doubled metaphorics, however, it will be necessary to shift the registers of the discussion, from filmic texts and film production to practices of distribution and exhibition. Here we will find landscapes as well, although of a different sort. For scenery films, which metaphorized their conditions of possibility in roads, train

[73] Jin da lixue yuan dianying jiaoyu bu, 59.
[74] Liu and Jiang, "Bianzhi," 61-7. It is unclear whether this film is the same as the *Shanghai* listed in the Jinling University catalog.
[75] Liu and jiang, "Bianzhi," 66.

stations and hotels, have their correlate in mobile exhibition practices, which sought to put such sceneries in front of a geographically and linguistically dispersed spectatorship. We will thus return to the Zhenjiang provincial mass education center.

Black Curtains, Screens, and Multi-Use Spaces

In a 1934 special issue of *Mass Education Information,* the Zhenjiang center's periodical, one finds a curious tension between Liu Zhichang's "Preliminary Guide to Implementing Cinematographic Education" and another essay by theater architect Zhi Zhang, recently returned from studying movie palaces in Tokyo. Whereas in Liu's "Preliminary Guide" the accommodations for the screening space were spartan, featuring a projection booth, black curtains, floor seating, fire doors, and toilets installed in a multi-use space, Zhi demurred, pointing out that:

> The locations commonly used by [educational film agencies today] are meeting halls, lecture halls, cafeterias, and classrooms. Speaking from an economic standpoint, [the use of] these places cannot be said to be inappropriate. But from the perspective of cinematographic education, they are absolutely inappropriate. This is because meeting halls, lecture halls, cafeterias, classrooms, etc. have their own uses; if they are used to substitute for a cinema, they need to be furnished with all different kinds of forced applications, some of which do not suit [the space], but it can be done. However, as far as the enterprise [of film education] goes, it will not be fully satisfactory. Since I have a deep desire that the

> educational film fully develop, it will be necessary for us to construct an appropriate and sensible educational cinematheque.[76]

Instead of thinking within the limits of available spaces, Zhi Zhang elaborated his design based on the international literature concerning theater design, emphasizing, among other things, maximal and minimal angles for the outermost seats in order to minimize image distortion and neck strain. Surveying design standards in Japan, Britain, and the U.S., Zhi elaborated a series of perspectival rules that would have been familiar to modernist theater designers like Ben Schlanger, who wrote that, "All theaters should furnish a clear view of the performance, should permit the patron to easily hear and understand the sounds of the performance, and provide for him the proper comfort and safety."[77] Whereas Schlanger derided large-scale movie palaces for their "oriental voluptuousness," which distracted the spectator from audiovisual immersion with their décor, proscenium arches, and turrets, Zhi appeared to have based his design concepts precisely on such movie palaces, something that was made clear by his choice of illustrations.[78] In its "full development," the "standard educational cinematheque" would resemble figure 4-4, complete with neoclassical cornice, although, as he noted the second balcony was optional. Taking the "cinematographic perspective," Zhi deferred to the design protocols of his sources: the movie palaces in Tokyo, Paris, New York, and Shanghai. As Zhang

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[76] Zhi Zhang, "Jiaoyu dianying chang de jianzhu sheji," *Minzhong Jiaoyu Tongxun* 3.10 (1934): 60. I use the word "cinematheque" here to preserve the strangeness of the Chinese expression, *jiaoyu dianying chang* 教育电影场, which is a neologism intended to separate the educational screening space from the movie theater, associated, as it was, with mindless entertainment and worse.

[77] Ben Schlanger, "Reversing the Form and Inclination of the Motion Picture Theater Floor for Improving Vision," *Journal of the Society of Motion Picture Engineers* 17.2 (August, 1931), 161-171.

[78] Schlanger, 162.

Figure 4-4 "Standard Mass Educational Cinematheque." Source: Zhi Zhang, "Jiaoyu dianying chang de jianzhu sheji," *Minzhong Jiaoyu Tongxun* 3.10 (1934): 60.

Zhen points out, when Shanghai's standardized movie palaces were first being built in the 1920s, they were lauded as educational spaces, which "unlike the more casual and open teahouse venues where film attractions were shown in a variety program…were promoted as self-contained art sanctuaries and architectural wonderlands."[79]

Writing in the magazine *Silver Light,* Xu Guanyu, assistant director to the Nankai chapter of the international boy scouts, lauded the movie palace as a corrective to urban anomie:

> The movie theater is an aesthetic experience. People who live a run-of-the-mill life will never be mentally at ease. To compensate for this suffering, they seek serenity and nature. People accustomed to living in the bustling metropolis wish for the fresh air and serenity of country living. Those cooped up in a room all day all want to go for a walk in the park, the wilderness, or the beach. In a movie theater, your vision is concentrated, your mind is at rest, your surroundings are pitch dark replete with restful atmosphere, where tranquil melodies resonate the subtle mood.[80]

As an "aesthetic experience," the cinema cut through the bustle of metropolitan life and resembled, in turn, the serenity of country living. For this reason, Xu notes, "intellectuals flock to movie theaters seeking entertainment, managers unceasingly renovate, demanding the architecture be ornate, the seats clean. They play only the most famous films to draw the attention of countless many. Unwittingly [the cinema] has become the most important gathering place for mass entertainment. It naturally becomes a more

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[79] Zhang, 123.
[80] Xu Guanyu, "Dianying zai shehui jiaoyu xian shang de ren ming," ZWSDY, 552. Originally published in *Yinguang* 2 (1927).

effective place than any other for education."[81] Xu's exposition resonates as a characteristic argument for the broad definition of educational cinema, in which the very existence of cinema as an institution of mass entertainment—with clean seats and "the most famous films"—made it equally valuable as an instrument for educational use. Zhi Zhang, taking the "cinematographic perspective" appears to agree. In the "Preliminary Guide," however, Liu Zhichang demurs with this characterization, if only on budgetary grounds:

> A public educational institution has limited funds and numerous projects; unfortunately it will not be able to construct a dedicated cinema building in order to project films. We will have to make do with a lecture hall or a classroom doubling as a projection space. Thus, when we go and research how to install a reasonable seating arrangement, it is certainly difficult ask. It can only be planned and accomplished as far as the implementing institution's funds go. On this topic, we will speak no more empty words (*bu bi duo suo konglun* 不必多所空论).[82]

Liu's sober note situated educational film within financial realities, which permitted only certain reorganizations of existing spaces in order to best facilitate screening (figure 4-5). The seating arrangement would not be on an angle, however the basic thirty-degree rule would be observed for the front most seats. The emergency exit was a matter of municipal building code (which many municipal movie theaters did not observe), while toilets decreased the disruptive occurrence of individuals entering and exiting the facility. "Those economically well off will wear beautiful silk but the poor can only wear plain

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[81] Xu, 552.
[82] Liu Zhichang, "Dianying jiaoyu chubu shishi fa," *Minzhong jiaoyu tongxun* 3.10 (1934), 21.

cloth designed to protect against the wind and cold," observes Liu, "since I approach educational film from an educational standpoint, here will be no need for ornamentation, only the fulfillment of realistic needs."[83] In accordance with the "fulfillment of realistic needs," the screen would be made out of muslin, silk or canvas, as a reflective "silver screen" would be too extravagant.[84] Black curtains were to be used to facilitate daytime screenings, as screenings at night would encourage "uneducational activities."[85]

The screening space that the "Preliminary Guide" described was in fact the newly refitted auditorium on the mass education center campus. Published in *Mass Education Information*, it also doubled as a model for other educators who either wished to set up screenings of their own or prepare their space for a visit by the Center's mobile projection team. In fact, by mid-1934, the Center had started a mobile screening service to schools, factories, and civil service institutions in and around the city, organized on the basis of semester-long subscriptions.[86] For timely setup, the contract asked for subscribing institutions to arrange the seating and hang the black curtains before the team's arrival. Earlier in 1933, the Shanghai branch committee had complained that their team had often arrived at schools unequipped with light blocking curtains, which had to be purchased on the spot, thus making them late to the next destination.[87] Designed to guard against such contingencies with mental preparation, the manual thus functioned as an instructional aid for instructors, constituting educational cinema as what I called in

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[83] Liu, 25.
[84] Liu, 25.
[85] Liu, 25.
[86] "Jiangsu shengli Zhenjiang minzhong jiaoyu guan dianhua jiaoyu gaishu" [Summary of Electrified Education at the Jiangsu Provincial Mass Education Center in Zhenjiang] (Zhejiang: Jiangsu shengli minzhong jiaoyu guan, 1937), 1-2.. Henceforth referred to as "Summary."
[87] Zhongguo jiaoyu dianying xiehui, *Zhongguo jiaoyu dianying xiehui huiwu baogao* (Nanjing: Zhongguo jiaoyu dianying xiehui, 1933), 13.

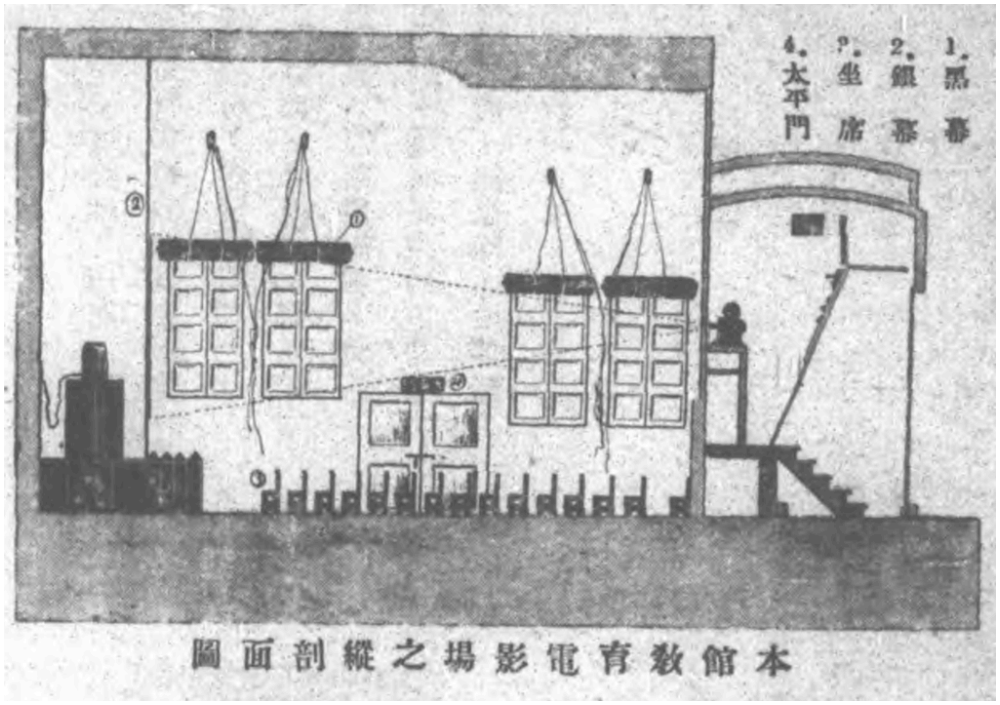

Figure 4-5 Cross-section of Zhenjiang Center Educational Cinematheque. Source: Liu Zhichang, "Dianying jiaoyu chubu shishi fa," *Minzhong jiaoyu tongxun* 3.10 (1934): 21.

Chapter 1 a bidirectional system of information. In a fashion similar to what Charles Acland has observed of classroom audio-visual technology in the cold war U.S. context, it was "the seemingly trivial materials of cords, carts, curtains and closets" that were essential to "the temporary spatial and architectural reorientation and reprioritization of institutions required by media revolution".[88] By mapping such trivialities, the guide gave consistency to the educational film as an actionable reality rather than a buoyant slogan circulated in the commercial film public sphere. Moreover, this consistency was built on the specificity of screen practices as the coordination of multiple mobilities. As Acland writes, screens create "links between dispersed spectatorial conditions," which, in turn, "compel people to move and gather together."[89] The refrain "we will speak no more

[88] Charles Acland, "Curtains, Carts, and Mobile Screens," *Screen* 50.1 (2009), 163.
[89] Acland, 149.

empty words" in Liu's discourse adds a third element to this coordination which determines the ensemble of film exhibition as a concatenation of writing, logistics, and finance (as discussed in Chapters 1 and 3). By definition, discourse that went beyond logistical and financial limits was empty; it was incapable of traveling beyond the page or mouth into practice. Thus, we cannot describe screens without paying attention to the discourses of their users, which binds technical ensembles into operable and transmissible units of meaning and reference. The genealogical effect of screen histories lies in the ability of the past to destabilize the present, not only at the level of denoted narrative (e.g. the media narrative of "the death of cinema"), but also at the level of narration itself; for genealogy to be effective, it must introduce indeterminacy into the historian's own discourse.

Two photo collages published in a 1937 illustrated report picture the distributions of logistics, architecture, and signification—the "representational space"—at stake in the Center's audiovisual work (figures 4-6 and 4-7). Introducing readers to the Center's east and west campus screening spaces, both diagrams arrange their constituent photographs according to a path demarcated by an arrow, as if reconstructing a virtual campus tour.[90] Beginning with the caption "the earliest teaching location," the line passes from an exterior to an interior view of the projection booth, to a view of students filing out of the front door, and finally, to an empty "educational film lecture space," photographed in the direction of the screen. Read as montage, the images suggest the end of a screening: the projectionists unspool the film, the students leave, and the auditorium is empty. In the center is pasted a large group portrait of the Center's film committee, standing outside the

[90] Zhao Hongxiang, n.p.

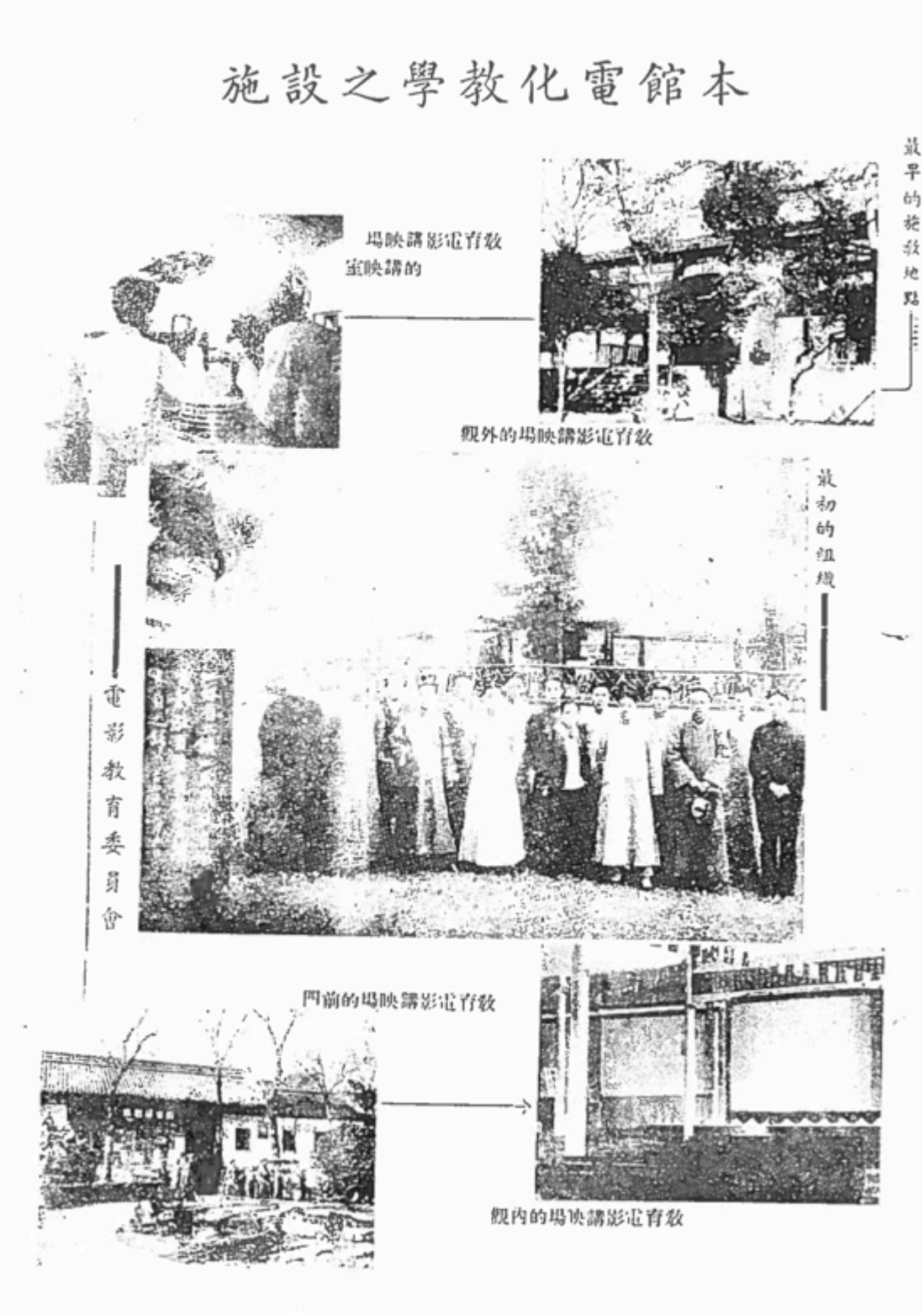

Figure 4-6 Main Campus Screening Space, Source: Zhao Hongxian, *Jiangsu shengli Zhenjiang minzhong jiaoyu guan dianhua jiaoyu gaishu* (Zhenjiang: Jiangsu shengli minzhong jiaoyu guan, 1937), n.p.

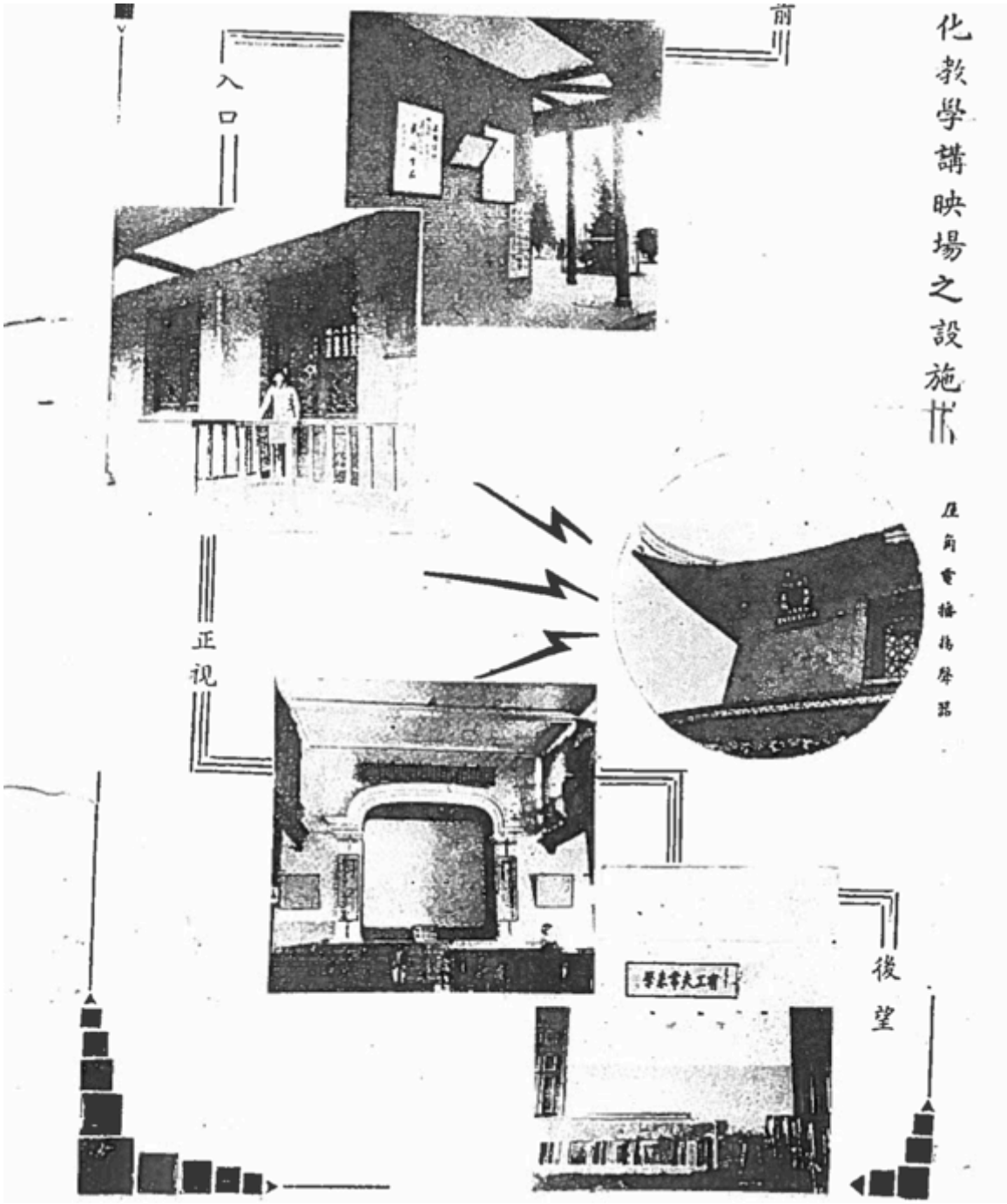

Figure 4-7 West Campus Screening Space, Source: See Fig. 4-6

campus wall. Significantly, the group portrait is not linked to the tour, occupying more the place of an emblem. In the second collage, a similar dynamic is established, except here in different terms. The path takes the viewer around the corner of the building, through the front door, and into a view first of the screen and then the benches.
To the right of the path is a photograph of the eaves; the caption indicates that inside them is installed a speaker. Electrical bolts emanate from the speaker, as if serenading the virtual guest with electrical sound, most likely that of a radio lecture. In both collages, then, the line is juxtaposed against an unmoving point, generating the effect of movement and synesthesia.

As Weihong Bao points out in her reading of similar photomontages, such a visual repertoire is addressed to the sympathetic or resonant spectator. Organized, in part, by conventions of film viewing, the collage posits the spectator/reader as an intermedial link, who "experiences the photomontage informed by conventions of reading, viewing, and film watching."[91] In the photomontages of figures 4-6 and 4-7, this spectator/reader finds the educational cinematheque not as a dark room with immobilized spectators but as a space in which bodies circulate. The virtual tourist does not move along with the masses leaving the theater, but enters into and shares their space. This experience of movement, however, does not take place in concretely represented space but in the blank abstract space between the photographic blocks, where only words and directional lines guide the visitor, as if inviting their imagination to resonate in the interstice. In this way, the photomontages appear as if to thematize the experience of a spectator caught between distinct unsutured media surfaces. He must negotiate between unsynchronized

[91] Weihong Bao, *Fiery Cinema: The Emergence of an Affective Medium in China, 1915-1945* (Minneapolis: University of Minnesota Press, 2015), 108.

information flows: the projected motion picture, the lecturer's voice as it booms over the loudspeaker, the lecturer's body as he sits on the chair in front of the screen, the columns blocking the screen, and the inscriptions above and on both sides of the proscenium arch. As opposed to the figure of the viewer situated at the ideal point in which perspectival lines converge, one finds a spectator who, like the reader of the illustration, must crane her neck, move, and focus in order to cut out her own perspective. What, however, does this mode of spectatorship entail? To push this account forward, it will be necessary to situate such media practices within the specific history and spatiality of the mass education center.

Highways and Alleyways

Founded in 1930, the Zhenjiang mass education center existed as part of a national network of like institutions based in larger cities, which in turn serviced county-level and village-level popular schools open to adult illiterates.[92] Historically speaking, the spatial logic of the mass education center offered a counterpoint to the enclosed spatiality of the modern school, continuing older practices of popular enlightenment (*jiao hua* 教化), which envisioned education as continuous with the role of rural gentry in advancing generalized uplift and inseparable from local culture and religious rites.[93] An essential feature of the *sishu* 私塾 that the modern schools replaced was that the former's doors were always open to the public, whereas modern schools barred entry to "idlers and

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[92] See Zhou Huimei, *Jindai minzhong jiaoyu guan yanjiu* (Beijing: Beijing Shifan daxue chubanshe, 2012); and Zhu Yu, *Minzhong jiaoyu guan yu jicheng shehui xiandai gaizao (1928-1937): Yi Jiangsu wei zhongxin* (Beijing: Shehui kexue wenxian chubanshe, 2012)
[92] This transition was by no means even.
[93] Zhou Huimei, Ibid, 37.

unconcerned persons."[94] Rather than being a porous space molded on generalized uplift, the school became an enclosure that taught a specialized and counter-intuitive curriculum.[95] As in the colonial Egypt described by Timothy Mitchell, in the modern Chinese school "learning was now to be separated from the practices in which it was entwined, assigning it a distinct place, the school, and a distinct period of life, that of youth."[96] Popular education initiatives, at first run by progressive gentry and urban intellectuals and later integrated into state-run mass education centers, offered an alternative. According to Li Zhen, a Columbia University graduate and professor at the Jiangsu Provincial Teaching Academy, rural inhabitants were to view mass education centers as their own property, where they could assemble for both learning and leisure.[97] By their nature as open spaces for public entry, Mass Education Centers were thus opposed to the bounded school, which intellectuals in the 1930s increasingly suspected of fracturing rather than uniting the polity. By the 1930s, in fact, the public education system—in fact a haphazard concatenation of provincially funded and privately run institutions—had acquired a distinct stratification, serving the privileged youth of the gentry class who, in turn, could rarely find occupations that fit their academic training.[98] When the League of Nations' mission of educational experts left China at the end of 1931, their final report described "an enormous abyss between the masses of the Chinese people, plunged into illiteracy, and not understanding the needs of their country, and the

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[94] Zhou Huimei, Ibid, 37.
[95] Zhou Huimei, Ibid, 37. For an account of suspicions regarding curriculum and mob attacks of schools, see Paul Bailey, *Reform the People: Changing Attitudes toward Popular Education in Early Twentieth Century China* (Edinburgh: University Press, 1990).
[96] Timothy Mitchell, *Colonizing Egypt* (Cambridge: Cambridge University Press, 1988), 88.
[97] Quoted in Zhu Yu, 43.
[98] Suzanne Pepper, *Radicalism and Education Reform in 20th-Century China: The Search for an Ideal Development Model* (Cambridge and New York: Cambridge University Press, 1996), 38.

intelligentsia educated in luxurious schools and indifferent to the wants of the masses."[99] Mass education was envisioned as a corrective to this situation, addressing the broad population without access to formal schooling that reformers often evinced by citing the alarming figure of eighty percent illiteracy.[100] Mass education centers addressed this population with literacy education, on the one hand, and by circulating "experiential" object lessons: product exhibits, vocational trainings, hygienic examinations, and military-style drills, on the other.[101] In the context of an unevenly developed road system, which, as Liu Zhichang complained in the 1934 text discussed in Chapter 2, obstructed the generalized flow of goods and services across the country, cinema provided a form of vicarious "experience" which could be mass produced and easily transported.

Hence the strange definition of the educational film by its logistical qualities: "The regular film is shown at a fixed location, requiring the installation of a large projector. While the educational film can be shown in a fixed site, it also travels to many places."[102] Mass education as a spatial practice was thus distinct from the disciplinary enclave, with its regulated postures, movements, and temporal regimes, its production of individuality. Insofar as mass education took in individuals who were "in productive work" yet unschooled in the habits that modern life required, it would have to accommodate their existing mode of life while supplementing it with new practices and

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[99] League of Nations' Mission of Educational Experts, *The Reorganization of Education in China* (Paris: League of Nations' Institute of Intellectual Co-operation, 1932), 21. The report, however, was quite positive on China's practices of adult education. Also see Pepper, 37-9.
[100] The figure is cited, for example, in Wang Pingling, "Zhanshi jiaoyu dianying de bianzhi yu fanying (1941)," in *Kang ri zhan zheng shiqi de Chongqing dianying, 1937-1945*, ed. Wang Congxue (Chongqing: Chongqing chubanshe, 1991), 154-162. In Zhejiang, it was estimated that there were 250,000 illiterates. See Zhu Yu, 54.
[101] Zhu Yu, 54.
[102] Liu Zhichang, "Dianying jiaoyu chubu shishi fa," 23.

skills.[103] As such, mass education intervened precisely in the space that Wang Pingling envisioned in his 1944 essay discussed in Chapter 3, where literacy is linked to the rhythms of everyday existence, whether in the factory or the farm.

In 1929, concrete floors were laid in a defunct literary temple in the historic center of Zhenjiang in what would soon open its doors as the provincial mass education center.[104] Earlier that year, Nanjing, the old provincial capital, was declared the seat of national government; Zhenjiang, then a dilapidated backwater, was designated the new provincial seat. In order to make Zhenjiang into the image of a capital city, the government ordered a set of large scale building projects, filling in defunct canals, widening roads for automobile traffic, erecting parks and dismantling the city wall to make way for new road construction.[105] Urban reconstruction was modeled off that of the national capitol Nanjing, with wide boulevards and centrally-planned zoning.[106] Transforming the city from a defunct fortress into a transportation hub, the reconstruction efforts linked Zhenjiang to a new high-speed circuit in the lower Yangtze region: Traveling by automobile along the newly built Shanghai-Nanjing highway, Nanjing, Changzhou and Wuxi were less than two hours away; a trip to and from Shanghai could be completed in a day.[107] New infrastructure, however, superimposes on older routes; underneath the highways, a capillary of narrow paths, alleys, and canals sustained the

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[103] Liang Shuming, "Xiangcun jianshe yu minzhong jiaoyu," *Jiaoyu yu minzhong* 6.1 (1934), 53.
[104] Liu Yungu and Xu Langqiu, "Jiangsu shengli Zhenjiang minzhong jiaoyu guan chubu jihua cao an," *Minzhong jiaoyu* 2.7 (1930), 93.
[105] Yang Ruibin and Qiu Longhong, "Minguo shiqi Zhenjiang chengshi jianshe yu qi jiaoxun," *Zhenjiang gaozhuan xuebao* 14.1 (2001), 23-7.
[106] William C. Kirby, "Engineering China: Birth of the Developmental State, 1928-1937," *Becoming Chinese*, ed. Wen-hsin Yeh (Berkeley: University of California Press, 2000), 139-43.
[107] Yao Yiyun, *Jing hu lu lüxing zhinan* (Shanghai: Shijie chuban hezuoshe, 1933). Also see David Strand, 'A High Place is Better than a Low Place': The City in the Making of Modern China," in *Becoming Chinese,* 99.

everyday travel of ordinary workers, peasants, and merchants.[108] Indeed, the modern reconstruction of Zhenjiang disrupted the latter, as canal blockages caused frequent floods due to poor drainage.[109] If in David Strand's words, Zhenjiang was linked to "the framework of a common urban reality connected by camel, boat, horse or mule cart, car, train and plane that also extended into the countryside and out into the world," this shared urbanism was defined by the intersection of radically different speeds, which in turn was demarcated along the lines of class and geography.[110]

The Mass Education Center's work took place on these superimposed grids of differential mobility, which in turn defined its institutional and architectural thinking. In late 1930, the Center opened a Western campus on the edge of the newly built Boxian Park. Driving on Sun Yat-sen Boulevard, which was built in 1929 on top of the dismantled city wall, could travel between campuses in less than thirty minutes.[111] Indeed, the Western campus was explicitly built out of concern that the old city was inaccessible to the residents of the more populous Western neighborhoods, residents who were less likely to capitalize on the newly built thoroughfare designed for automotive travel.[112] As a spatial practice, hence, the Center's work was addressed to the difference between its own access to the urban and that of the populations it served. In a certain sense, the very meaning of its educational work, which sought to bring residents out of their narrow alleyways and into wide-open spaces such as the public park, was defined by

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[108] As Strand observes in the case of Lanzhou, a claim that can be generalized. See Strand, 103.
[109] Yang and Qiu, 26
[110] Strand, 99.
[111] Yang and Qiu, 24. Travel estimate from google maps, rounded up generously.
[112] Zhao Hongxiang, "Jiangsu shengli zhenjiang minzhong jiaoyu guan er shi wu nian du shishi fangan dagang," *Minzhong jiaoyu tongxun* 6.6 (1936), 1-36.

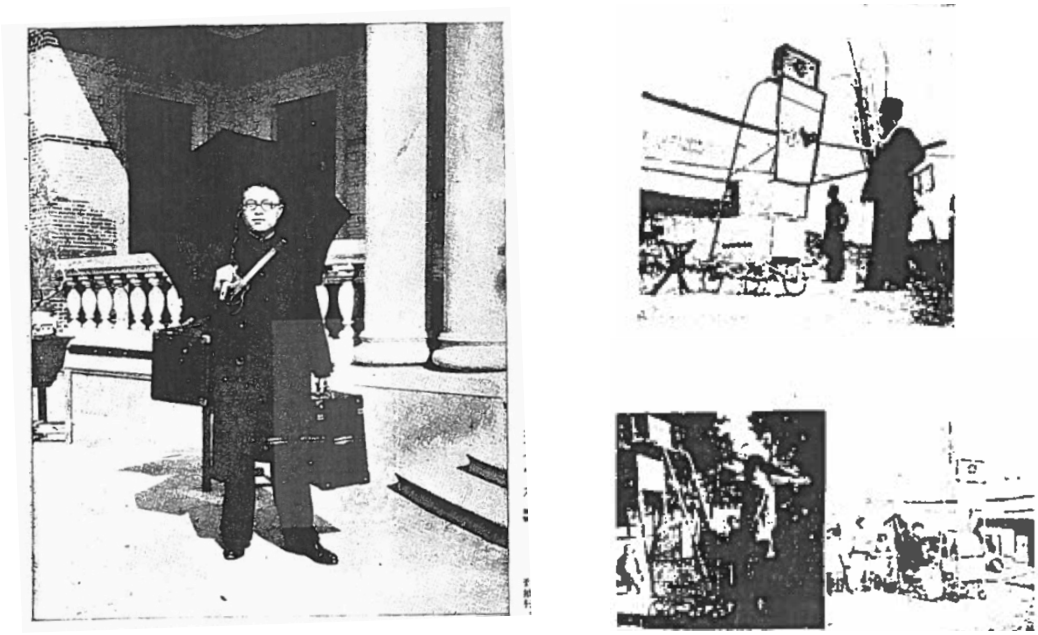

Figure 4-8 Lightweight Equipment. Source: See Figure 6

this differential. As I note in Chapter 3, educators defined educational cinema largely as a logistical problematic, in which the traffic of films compensates for the selective circulation of goods between regions, thus supplying referents for the discourse of the instructor, who speaks in the name of nation and world.

Since 1934, the Center ran mobile projection teams that would make trips to schools and mass education institutions in the eight adjoining counties, at first on an invitation basis, later, after the 1936 Ministry of Education ordinances, according to a regular schedule. In 1937, it commissioned China Autoworks in Shanghai to complete its first ambulatory teaching van, which could carry projector, screen, sound equipment, exhibits, foodstuffs and lodging accessories for its crew of five. All the equipment would be detachable so that the crew could dismount and travel by foot or boat into regions inaccessible on the widened roads. In the pages of *Mass Education Information* and

Figure 4-9 "Mass Educational Cinematheque": *Minzhong jiaoyu tongxun* 3.10 (1934), n.p.

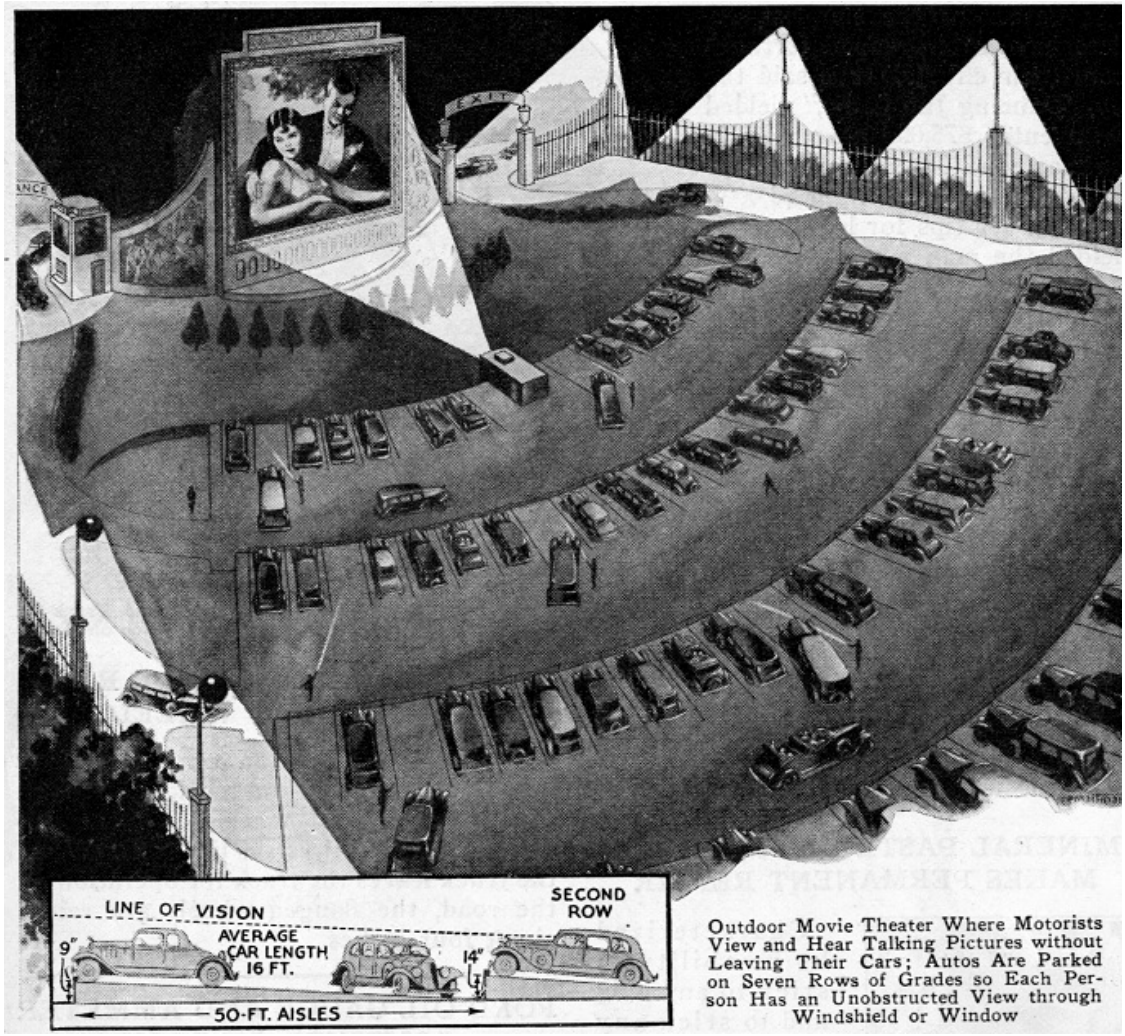

Figure 4-10 Camden NJ Drive-in, Source: April L. Smith, "Drive-ins: A Short History," Reel East Film Festival, 27 July, 2014, http://reeleastfilm.org/1/post/2014/07/drive-ins-a-short-history.html, Accessed 25 October, 2016.

the 1937 report, the Center published a large assortment of photos publicizing lightweight equipment, which it had either purchased or improvised (figure 4-8).

The illustration of a "Mass Educational Cinematheque," found in the 1934 special issue of *Mass Education Information,* provides us with what is essentially a landscape painting of cinematic mobility (figure 4-9). Comprised of three images positioned vertically on the page, the illustrations purportedly present a "side view," "cross section," and "panorama" of the same space. Conspicuously, they are incongruous. While the picture at the top appears to be the cross-section of an indoor movie theater, the bottom two illustrations depict, on the contrary, an outdoor space with an audience arriving in cars, rickshaws, and on foot. The bottommost image, recognizable as an adaptation of a newspaper advertisement for the Drive-in Theater in Camden New Jersey (figure 4-10), contains an insert divided into four quadrants, each labeled with a printed caption:

> (1) In this mass educational cinematheque you can sip tea underneath an umbrella and relax without shifting the table or the chairs. (2) If you came on a rickshaw there is no need to dismount. (3) In the rural village, where there are no automobiles and rickshaws, there are convenient benches to sit in. (4) Standing masses watching the educational film. (5) Cars can drive directly onto the site.

The illustrator provides no cues as to where the different seating arrangements depicted in the insert are to be located in the space as it is pictured. Like the two other panels, they appear as if pasted into the image, limning an abstract yet utterly non-Cartesian space in a fashion reminiscent of collage.

The same year, the cinematographic education committee at the Jiangsu Provincial Mass Education Center in Zhenjiang, also the editors of *Mass Education*

Information, published a standalone pamphlet on educational cinema in which the same image was reproduced with revised captions. Here, it is specified that the projection booth is, in fact, a *vehicle,* which, "fitted with a projector, sound system and generator […] could travel anywhere," thus enabling the cinematheque to be "used in the summer and fall, in the city and the countryside."[113] Compared to the Camden Drive-in, which celebrated the homogenous intimacy of middle-class automobility, those who envisioned the mass educational cinematheque courted an indeterminate heterogeneity.[114] The audiences come in their vehicle of choosing and circumstance, from which they do not have to dismount. Read with the captions, the quadrants of the insert refer simultaneously to a locale within the represented space and to multiple mutually exclusive exhibition sites, including "a rural village" where "there are no automobiles and rickshaws." The demands of such imagined versatility negate the very representational value of the illustration by dispersing its visible features across uneven spatiotemporal registers. The stock image of the drive-in movie theater is fragmented, made to simultaneously exist in the summer and the fall, the country and the city, assisted by the mobility of the projection car itself. Included in this dispersal are contexts in which the most prominent features of the illustration—the cars—are no longer present. The diagram's disjunctive planes gesture to a fundamentally open configuration, in which the still image fragments under the weight of its own mobility.

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[113] Liu Zhichang and Jiang Shecun, *Dianying jiaoyu shishi fa* (Zhenjiang: Jiangsu Zhenjiang minzhong jiaoyu guan, 1934), n.p.

[114] In his study of drive-ins in Australia, Ben Goldsmith argues that drive-ins were veritable "temples of modernity" by confronting the culture of consumption with that of creature comfort. See Goldsmith, "'The Comfort Lies in All the Things You Do': The Australian Drive-in—Cinema of Distraction," *Journal of Popular Culture* 33.1 (1999), 154.

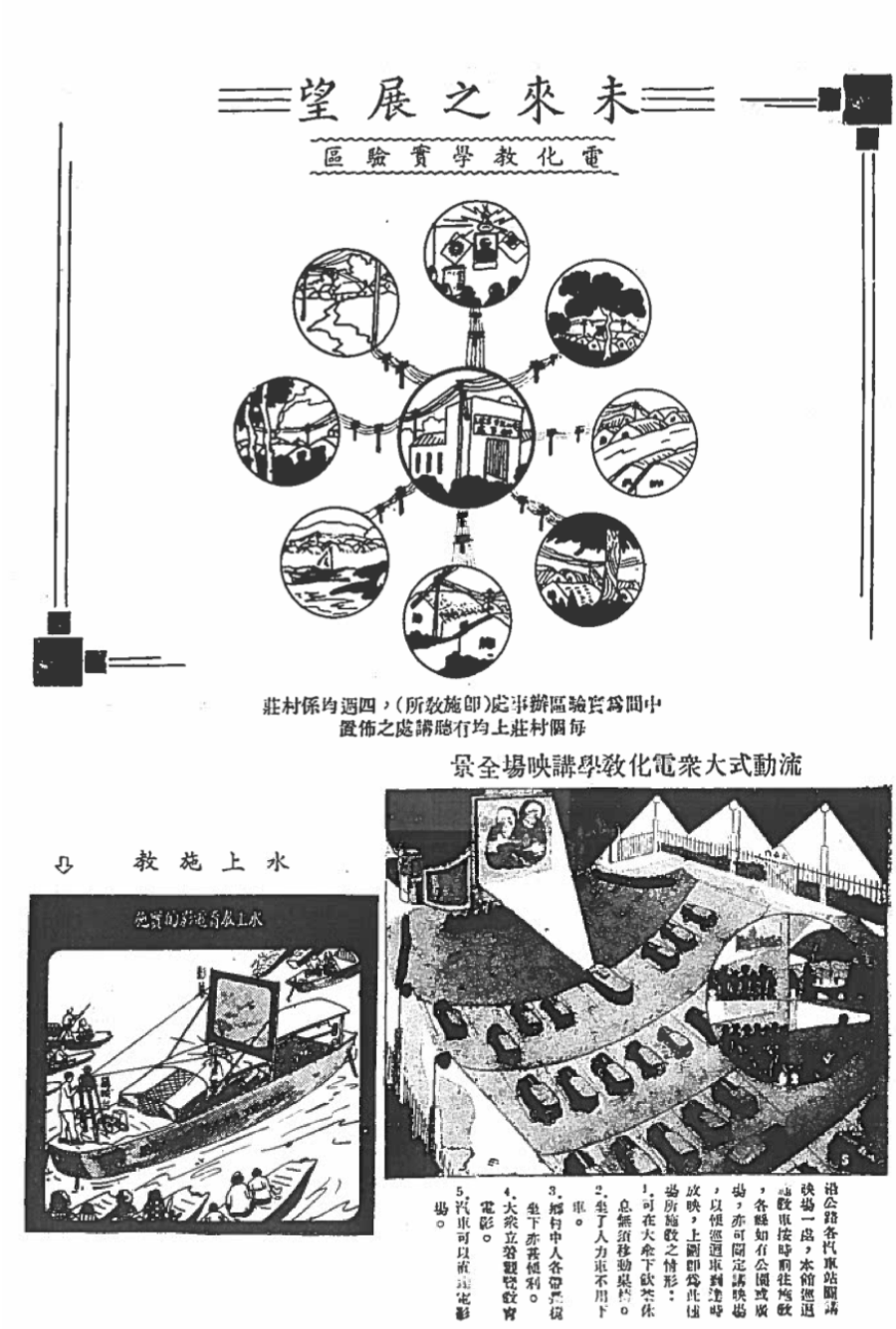

Figure 4-11 Future Aspirations. Source: See figure 6.

The illustration was published yet again in the Center's 1937 report, re-captioned and pasted on the page titled "Future Aspirations," alongside depictions of waterborne projection and wired radio (figure 4-11). The caption reads:

> Situated alongside the road, each automobile station will be equipped with a space for lecture-screenings. Our center's ambulatory teaching cars will circulate at scheduled times to implement the educational [program]. Each county may, if it has them, prepare a park or public square for screening in order to facilitate the ambulatory cars' timely setup."[115]

The 1937 iteration of the captions indexes the transformations in educational film practice that had taken place in the intervening years. While the illustration remains constant, the captions arrange its multiple screening situations according to a regularized spatiotemporal articulation. While the earlier version advertises the projection vehicle's capacity to "travel anywhere," the latter districts this dream of mobility according to administrative demarcations situated at the county-level; county governments are to prepare screening sites in order to facilitate "timely setup." All this was evidence that the idea had gained a higher degree of reality. "City" and "country" were no longer vague slogans for the mobility of the audiovisual apparatus; they had acquired administrative, and thus operational, consistency. The Ministry of Education's Cinematographic Education ordinance of 1936 required state agencies and educational organizations at the municipal and provincial levels to delineate mobile projection districts and carry out regular screenings of educational films in each district.[116] The previous screening

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[115] Zhao Hongxiang, "Summary," n.p.
[116] See "Ge sheng shi shishi dianying jiaoyu banfa" [Plan for Implementing Cinematographic Education for Provinces and Municipalities], *Faling zhoukan* no. 329 (1936), 5-6. The Plan was

procedure, drafted by the Center and passed by the provincial legislature, arranged for schools and civic institutions in Zhenjiang and its surrounding area to request either individual screenings or semester-long subscriptions. The mobile team would make the trip if the requesting institution could guarantee an audience of 400.[117] According to the new regulations, the Center's mobile projection teams were now required to visit the Zhenjiang municipality and the eight counties in its projection district at regular intervals, following a predetermined itinerary decided at the administrative level rather than by local subscription.[118] Although no one from the Center's electrified education committee grumbled in print about the new arrangements, evidence of the difficulties introduced by compulsory regularized screening can be discerned from their description of the center's ambulatory teaching van.

Built on a Mercedes-Benz truck chassis, the van was equipped with "every kind of electrified education [audiovisual education] implement (generator, sound amplifier, film projector and radio receiver)" and stocked with "foodstuffs and lodging accessories for [our] personnel, as well a cabinet of all types of educational accessories" (figure 4-12) More than screening films and broadcasting lectures and radio programs, the ambulatory team also carried out a wide range of other functions, transporting mass reading materials

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passed and distributed to municipal Social Bureaus and provincial Education Bureaus on August 22, 1936. Article 8 reads: "The mobile educational film projectionists should designate an equal amount of screening times in each of their respective district's counties and municipalities. Upon arrival, they are to meet with representatives of the local municipal/county educational department, provincial school of secondary level or above, or provincial social administrative organ. They will determine the projection itinerary based on the [needs] of said county's elementary and secondary schools, social education organs, and important villages" (p. 6).

[117] See "Jiaoyu dianying shenghui xunjiong shijiao banfa" (1934) in Zong Bingxing, *Jiaoyu Dianying Gailun* (Shanghai: Commercial Press, 1937), 302.

[118] "Ge sheng shi shishi dianying jiaoyu banfa," 6.

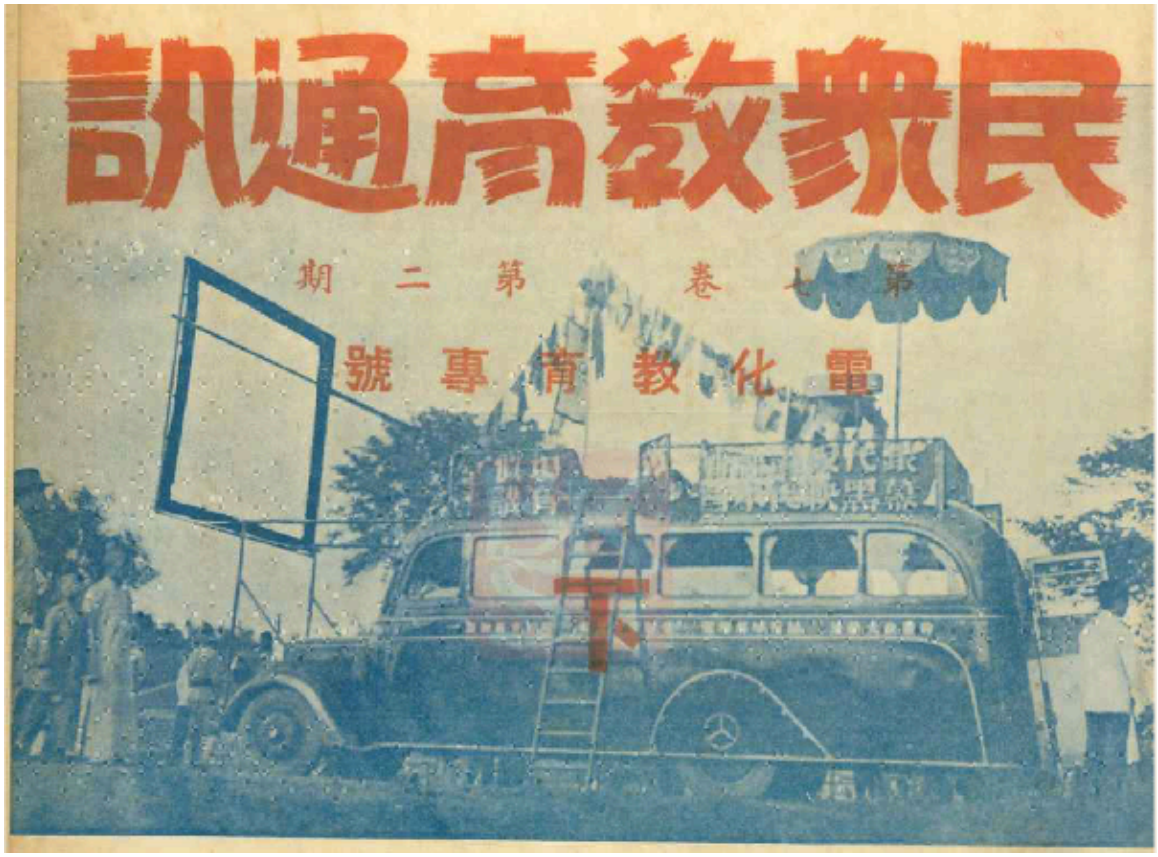


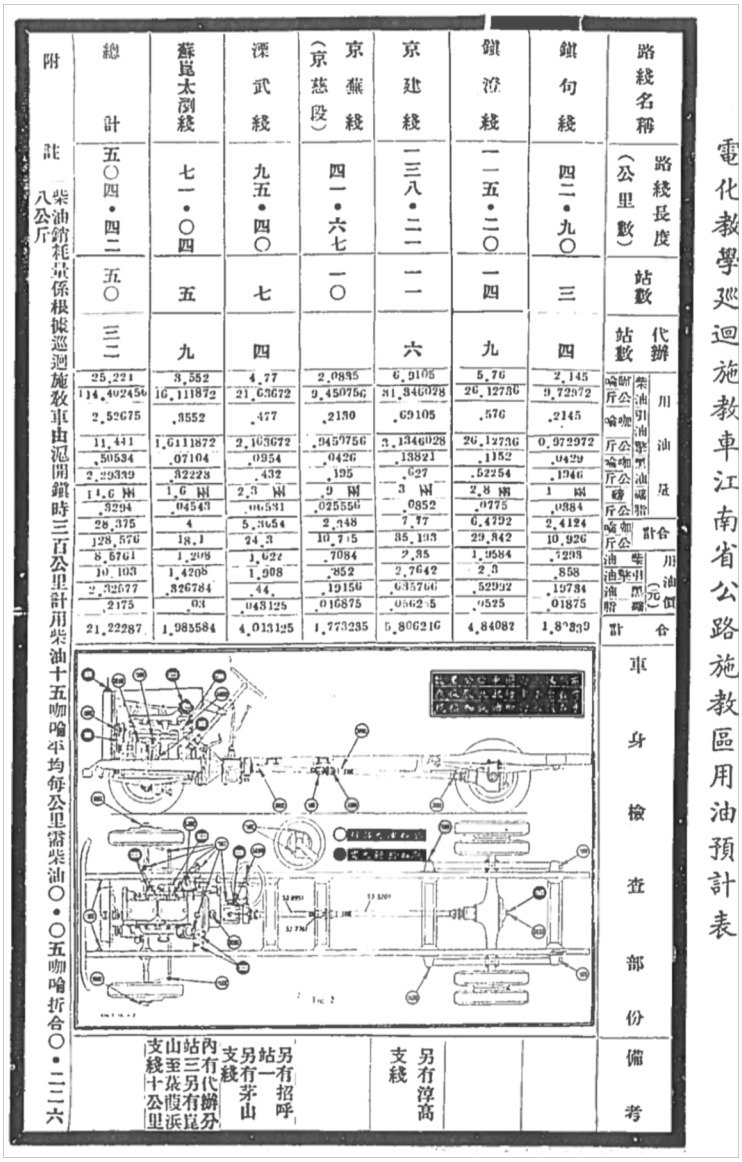
Figure 4-12 Mobile Teaching Car. Source: Front Cover of *Minzhong jiaoyu tongxun* 7.2 (1937)

and exhibits, teaching the masses to distinguish between domestic and foreign-produced goods, performing medical examinations, and offering photography services for locals.[119] One publication called it a "small-scale mass education center," reiterating the distinction between "small-scale" (16mm) and "large-scale" (35mm) cinema, as it was often discussed.[120] The construction of the car was as much for the teaching staff as it was for the masses, however. In the 1937 report, Center director Zhao Hongxiang complains, "The greatest difficulties of ambulatory teaching work was logistical inconvenience: the

[119] Zhao, "Summary," 12.
[120] TITLE, *Dianhua jiaoyu* 5 (1937), 26.

slow pace of travel on foot and difficulties in [securing] food and lodging."[121] That the audiovisual workers could not expect to be consistently fed and housed by their local contacts is telling as to the relationship between the Center and the communities it served. With the 1936 laws, the screenings were no longer done at the invitation of local teachers and administrators, who might then be expected to show some degree of hospitality to their guests. Teams were also expected to travel between counties for weeks at a time without returning to the Center, something hardly sustainable without stable expectations of food and shelter. "In rural villages, there are very few restaurants and hotels; when they do exist they are rarely clean. Under these conditions, our employees are often cold and hungry. This is not good for their health. The results of our work have thus suffered."[122] The successful circulation of educational motion pictures in rural China depended on the presence of an economy that commoditized basic needs, and moreover food and shelter that met the hygienic standards of the urban educated instructor. The mobile self-enclosed environs resolved this palpable asymmetry, replacing independent variables of economic relationality (hospitality gifted or exchanged for money) with those of technological infrastructure: wide roads and available diesel. Auspiciously, the van provided enough storage space to carry fuel onboard. Detachable equipment rendered the teams versatile, able to disembark and travel via canals and small roads. The van, as Zhao observed, "invigorated our Center's ambulatory [screening] activities, breaking open the limits of space and time, and expanding the specific capacities of mass

[121] Zhao, "Summary," 10.
[122] Zhao, "Summary," n.p.



電化教學巡迴施教車江南省公路施教區用油預計表

路綫名稱	路綫長度（公里數）	站數	代辦站數	用油量 柴油	用油量 引擎油	用油量 黑油	用油量 總計	用油價（元）	車身檢查部份	備考
鎮句綫	四二・九〇	三	四	2.145	9.72972	.2145	0.972972	.0429	.1946	.0384	2.4124	10.926	.7293	.858	.19734	.01875	1.80339
鎮澄綫	一一五・二〇	一四	九	5.76	26.12736	.576	26.12736	.1152	.52254	.0775	6.4792	29.842	1.9584	2.3	.52992	.0525	4.84082
京建綫	一三八・二一	一一	六	6.9105	31.346028	.69105	31.346028	.13821	.627	.0852	7.77	35.193	2.35	2.7642	.635766	.05625	5.806216
京蘇綫（京慈段）	四一・六七	一〇		2.0835	9.45756	.2130	9.457756	.0426	.195	.025556	2.348	10.715	.7084	.852	.19156	.016875	1.773235
溧武綫	九五・四〇	七	四	4.77	21.63672	.477	21.63672	.0954	.432	.06591	5.3654	24.3	1.622	1.908	.44	.043125	4.013125
蘇崑太劉綫	七一・〇四	五	九	3.552	16.111872	.3552	16.111872	.07104	.32223	.04543	4	18.1	1.206	1.4208	.326784	.03	1.983584
總計	五〇四・四二	五〇	三二	25.221	114.49245	2.52675	11.441	.50534	2.29339	14.6 噸 .9294	28.375	128.576	8.5761	10.103	2.32577	.2175	21.22287

附註 柴油銷耗量係根據巡迴施教車由泥開鎮時三百公里計用柴油十五咖喻平均每公里需柴油〇・〇五咖喻折合〇・二二六八公斤

另有招呼站一 另有淳高支綫 內有代辦分站三另有崑崙支綫 另有芳山支綫 山至茨廠浜十公里

Figure 4-13 Distance and Fuel Chart, source: above

education."[123] Or, put more bombastically and with reference to the vital May Fourth distinction between a "dead" classical Chinese and the "living" vernacular, the van "takes a dead mass education center and gives it life, allowing it to get closer to the masses, to

[123] Zhao, "Summary," 10.

go among them [*shen ru min jian* 深入民间], and to break the limits of space and time that had previously afflicted our work."[124]

Inserted within the diagram of the future mass educational cinematheque, the ambulatory teaching vans—here imagined in the plural—enable a dynamic system formed out of the coordination of multiple mobilities. The screening space so envisioned exists only provisionally at the intersection of audiences who travel to the site and the ambulatory teaching vehicle that meets them at a scheduled time. "Breaking open the limits of space and time," this coordination of mobilities extracts both from their basis in a fixed locale; space and time become abstract, existing only in the superimposition of administrative demarcations, travel itineraries, and local screening schedules. If the final itinerary remains the product of a correspondence between the Center and local authorities, it is no longer grounded in that correspondence; the times and places are determined according to a spatiotemporal totality that can be mapped on the timetable, on the one hand, and the distance to fuel chart, on the other (figure 4-13). This deterritorializing momentum, and its fatigue, was furthered as the Ministry of Education commandeered the Zhenjiang center's ambulatory projection van at the opening of the war of resistance against Japan, renaming it "National Projection Team One."[125] Between 1937 and 1945, the car, with Liu Zhichang at the helm, circulated between Hunan, Guizhou, Yunnan, and Sichuan for tours that lasted five months at a time.[126]

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[124] "Dianhua jiaoyu jiaoxue xunjiong shijiao che," *Minzhong jiaoyu tongxun* 6.7 (1936), back cover.
[125] Li Wuzhou, "Liu Zhichang: Pingfan er weida de dianhua jiaoyu xianqu," *Xiandai jiaoyu jishu* 21.7 (2011), 5.
[126] "Jiaoyu bu minzhong jiaoyu xunhui shijiao che shijiao banfa," *Jiaoyu tongxun (Hankou)* 18 (1938), 22.

The wired radio system depicted in figure 4-11 (above) evokes a similar image of simultaneity, with educational broadcasts radiating outward from a central location to multiple "listening stations" located in villages, on water, and in the lecture hall where the picture of Sun Yat-sen hangs over crossed national flags. The most notable features in the image are the cables, which serve two simultaneous functions: on the one hand, to represent in abstract the spatial organization of the system, on the other as features of the visible environment in which that system functions. At four points, visual continuities make it seem as if the cable lines pass from inside the illustrated circular insets into the interstitial void. At others, the utility lines entirely miss each other at the border of the inset. As with the other images, two representational regimes collide: one diagrammatic, beholden to the requirement of visualizing (and blueprinting) relationships only partially available to the human senses, and the other pictorial, hemmed in by realism (e.g. spatial relationships) and conventions for depicting idyllic if electrified rural space. Like mobile projection vans (as well as cars, rickshaws, and feet), transmission wires are always spatiotemporally out of step with themselves, present both in visible space and elsewhere, both in the *now* of lived experience and the other temporality of the national network often construed as homogenous and empty. Through this emanating model of diffusion radio, each transmission cable tower would make present simultaneously itself and the Zhenjiang center, and by proxy "the magnificent central [government]" (*yang yang zhongyang* 泱泱中央) would shine like a sun in the lives of the dispersed masses. The top circular inset, which depicts two flags—one for the Chinese Republic, the other for the Nationalist Party—crossed over the Founding Father's image, and a hanging loudspeaker

radiating sound waves portrayed as lightning, emphasizes in triplicate the solar value already displayed by the diagram of the network.

In 1934, the Center staff acquired a 25-watt radio transmitter, which it used to run its own lecture programming and amplify broadcasts from other stations. The receiver was installed in a specially designated classroom, the speakers at the front gates and in busy pathways inside the campus. At the end of the year, a new speaker system was purchased and installed on the pathways and rest areas of a park in Western Zhenjiang (outside the Center's West campus). Through this system, the Center broadcasted Central Broadcasting and Jiangsu station educational programs as well as its own popular lectures and music; the latter was used alongside written lyrics as a form of literacy education.[127] In addition to the wired system, the center attempted to bring radio into the everyday life of the city and countryside. Beginning in 1935, it purchased machines capable of acting as gramophone, microphone, and radio receiver; these machines were set up in teahouses and department stores, where electrical connections were available, and used to broadcast radio programs and on the spot popular lectures. However, as the 1937 report notes, such practices became infrequent due to the expense of purchasing electricity and complaints of the venues involved; drawing listeners in congested crowds around the apparatus, they "obstructed both traffic and teahouse business."[128] Upon the purchase of 6-volt dual function radio chargeable with a hand-cranked generator in 1936, the Center's audiovisual educators were able to gain added mobility for their radio operations. "We installed the machine on a rattan cart, making what looked like an infant stroller. Rattan poles were used to create a frame on the front of the cart; the speakers were fastened on

[127] Zhao, "Summary," 7.
[128] Zhao, "Summary," 8.

top of the frame and the frame itself used to affix a cloth screen (on which could be projected magic lanterns). The cart could travel anywhere; it fit through narrow alleys; from here on our mobile work became more manageable" (see figure 4-8 above).[129] At its "teaching locations," the cart operators would first play music to draw a crowd, then teach literacy using the cloth screen to write down, or project, the spoken words broadcast over the radio. This success led the audiovisual educators at the Zhenjiang center to invest in a 6-volt magic lantern and a 6-volt light and reflector; efforts to design a 6-volt 16mm film projector were underway as of the 1937 report's publication date, to be interrupted by the war.[130]

The placement of speakers in strategic high traffic routes evidences an educational thinking premised on patterns of movement, which could be infrastructurally mapped. Walkways, designated rest areas, and gates are ideal places to install wired speakers because such existing infrastructure created a regular flow of listening ears. However, as in the case of the teahouse and department store, the very presence of the technology, which drew bodies to surround it, triggered negative feedback in the form of congestion, risking the welcome of the storeowners who supplied the electrical power source. It was only the mobility granted by the 6-volt radio that provided a provisional solution to this problem. Rather than basing location on existing infrastructures (where congestion created a problem), the radio carriage, able to pass through the finer capillaries of a given geography, distributes the broadcast across several destinations, drawing presumably smaller crowds at each location (according to the report, the device amplified the sound enough to reach a group of 400) while simultaneously increasing the

[129] Zhao, "Summary," 8.
[130] Zhao, "Summary," n.p.

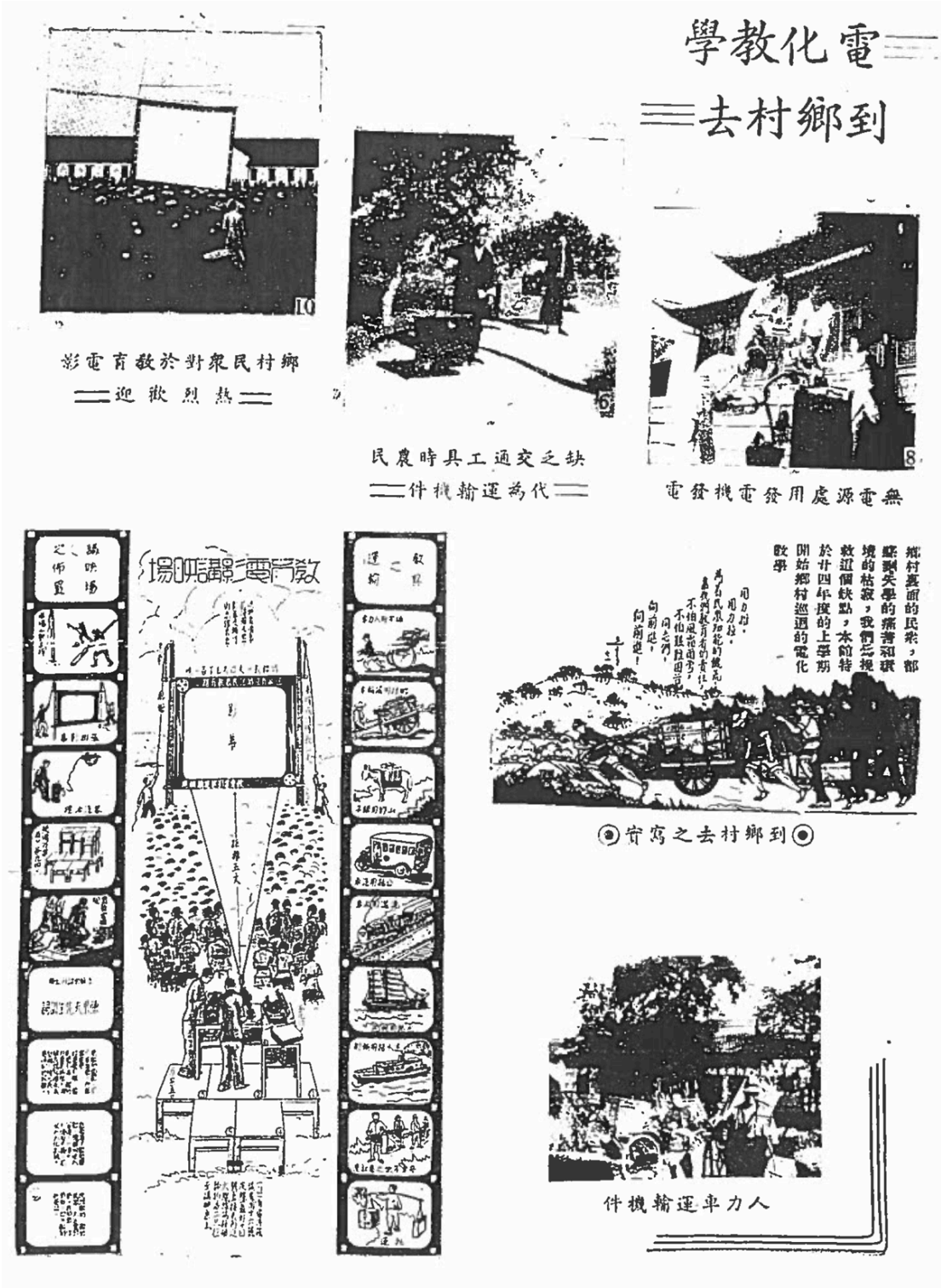

Figure 4-14 "Cinematographic Teaching goes to the Countryside," source: see figure

total number in the audience. Ameliorating concerns about overcrowding and the infrastructural paucity, the 6-volt devices are accorded a unique spatiotemporal value, namely, its capacity to adapt to the pre-existing fabrics of everyday life: narrow passageways and irregular schedules, which from the perspective of heavier media platforms were either invisible or were considered obstacles to be overcome. Importantly, this capillarity is not opposed to but works in tandem with certain processes of centralization and homogenization. The "school of the air," with its uniform schedule, acquires its efficacy only by dispersing listening sites, making class available to those for whom geographical dispersion made it difficult to attend school in a fixed place. Radio education, in its multiplicity, brings us back to the timetable and the chart.

In another sense, however, the tables and their implied control over time and space remained specious. Underneath their implied simultaneity laid an assortment of mechanisms that could malfunction at any time. In addition to including fuel charts and timetables in the 1937 report, its authors also made a display of its lightweight technologies. The page "Electrified Education goes to the Countryside" is of particular interest (figure 4-14). With photographs and illustrations depicting outdoor screenings and men carrying, setting up, and pulling audiovisual equipment, the page illustrates three criteria previously enumerated as the technical essentials of work in rural areas: (1) that the machines be solidly constructed, light, and able to withstand jostling; (2) that they be "inexpensive and effective"; and (3) that they use less electricity, capable of being powered by battery rather than gas generator.[131] Observing that of the fifty key point schools in its rural service district, only thirteen had electricity, the author

[131] Zhao Hongxian, "Summary," n.p.

Close-up of "Electrified Education goes to the Countryside"

emphasized the third point, purporting that the center was working on a 16mm projector capable of running on a six-volt battery, a development interrupted by the war. For the time being, however, the Center used a gas generator carried by two persons or affixed to a hand drawn cart.

The copper plate illustration on the right of figure 4-14 offers a striking counterpoint to the smooth space diagrammed by the tables and fuel charts. In it, individuals wearing caps and with bared legs pull a cart of film equipment while educators dressed in black follow with their suitcases containing portable amplifiers. “Because the rural populace suffered from the interruption of their education and the boredom of their environments,” the caption reads, “in the first semester of the twenty fourth year of the Republic [1935] our Center began to operate electrified teaching in the rural villages.” Next to the caption, an inscription, written in the cadence of a literacy rhyme, eulogizing the physical effort involved in bringing knowledge to the people:

Pull Hard! Push Hard!

In the name of the peoples' intellectual hunger

This is our great educational responsibility

Not afraid of the wind or the frost, the rain or the snow

Not afraid of the grueling hardships

Comrades!

Forward March!

Forward March!

The poem is written as if to give encouragement for the mobile team in the picture, as well as to the readers who are in a position to put themselves in their shoes, all in the name of a rural population depicted, as elsewhere, in the negative, as if their schooling had been brutally interrupted. But to whom in the image is the poem speaking to in particular? The hatted men with bare legs form a stark contrast with the men in black with suitcases, evidencing a distinction between the technical/instructional staff and hired coolies, "mental" and "manual" labor (although in this case it is really manual and pedal labor). It is the latter whom the poem tells to "pull hard" and "push hard," to bear the brunt of "educational responsibility." Making visible a peculiar configuration of technological unevenness, in which human labor comes to subtend gaps in the transport and electrical infrastructure that lend modern media their speed, the image, in addition, divides. Like the lecturer's voice or the captions to the educational cinematheque illustration, the motivational inscription appears to lose its unified enunciation, speaking differentially to all who may read or hear it. The human carriers, themselves differentiated into suited and bare-legged figures, mediate between asynchronous systems: on the one hand a set of roads too narrow or windy for automobiles, and on the

other, cinema and radio equipment that its users claimed could "break open the limits of space and time." The illustration could indeed be read as a crystallization of the effects of uneven development on landscape, where the assemblage connecting modern media to dirt paths mediated by bitter physical toil (or *kuli* 苦力, transliterated into the English word "coolie") also produces dissonance at the level of signification. To truly "read" this image means finding oneself distributed across global technical networks, electromagnetic spectrums, writing systems, highways, railroads, dirt paths, canals—all connected by the diminutive poetics of human labor. It is with this note in mind that we return to Sun Mingjing's scenery films, which I now read as circumnavigations of all these paths simultaneously.

Ten Thousand Li Hunting for Shadows

> Since I departed from Nanjing, most of the scenes I have viewed along the way have been bleak and miserable. What I have seen and heard could make a valuable record, but they suggest no poetic or picturesque charm. I am afraid that my letters to you might be very boring. Earlier in Lianyungang, the mountains are green, the waters are blue [*qingshan lüshui* 青山绿水] and the buildings look spectacularly magnificent. I allowed myself only half a day of rest. Driven by 'utilitarianism' [*gongli zhuyi* 功利主义], I went out to shoot films until my legs were worn out. Mr. Lin Yutang once said, 'we should write on what we have experienced in our legs rather than copy straight from books. My experience this time made me realize the same rule applies to filmmaking as well. The more you use your legs, that is, the more you explore a place, the more valuable shots, ideal

> angles and practical materials you get. The world is a grand studio: There are countless objects to film. Animals and plants are lively characters.
>
> The train pulled into Tai'erzhuang, which borders Shandong Province. The village, with 3,000 households, is large enough to be a town. The village, with 3,000 households, is large enough to be a town. Yunhe (Canal) Railway Station is 40 km from here, and it is another 40 km to the north of Zaozhuang…[132]

So reads a letter from the filmmaker Sun Mingjing to Lü Jinai, postmarked from the village of Tai'erzhuang in Shandong province on June 16, 1937. Less than a year later, the city would become the location of a fierce battle, which resulted in the first Chinese victory of the second Sino-Japanese war. Sun had been assigned earlier that year by the Department of Educational Cinematography at the Jinling University to shoot footage of "geography, natural resources, industry and people's daily lives."[133] Sensing the imminence of conflict, Sun left Nanjing in early June to make a trip to key industrial and scenic sites in northern China, concerned that the opportunity to shoot educational films there would soon be lost.[134] In the month leading up to the outbreak of all-out hostilities on July 7, Sun traveled extensively in northern and northeast China, covering a distance of approximately 10,000 *li* or 6,000 kilometers, during which he filmed footage that he would later edit into *Xuzhou Scenes, Huaibei Sea Salt, Lianyungang, Coal Mining, Suiyuan Province, Lanzhou Shadowplay, The Ten Thousand Li Great Wall* and *Beiping: Our Old Capital,* films on scenery, strategic infrastructure, industry, and the arts. During his trip, Sun posted letters to his lover Lü Jinai, twenty-five of which he would collect in

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[132] Sun Mingjing, *Filming as War Clouds Loom in 1937—6000km with a Cinecamera,* trans. Sun Jianqiu (Beijing: Foreign Languages Press, 2006), 60. Translation modified.
[133] Sun, "Foreword" to *Filming as War Clouds Loom in 1937,* n.p.
[134] Sun, "Foreword", n.p.

the anthology *Filming as War Clouds Loom in 1937: 6000km with a Cinecamera* along with photographs from his extensive travels.[135] Although prepared as a hand-copied manuscript in 1938, *Filming as War Clouds Loom* would not be published in whole until 2003, shortly after which Sun's daughter Sun Jianqiu translated it into English. Sun Jianqiu's translation of the title is economical, but domesticates; a more literal rendition—*Hunting for Shadows as War Clouds Loom in 1937*—captures the poetic strangeness of filming as a hunt for mirages and derealized specters.

The rhetorical movement of the June 16 letter underscores the degree to which train travel itself participates in the movement of derealization by offering a metaphor for dispersal. In titling his letters for the anthology, Sun had decided on a couplet form used as chapter headings of late-imperial vernacular novels. In these chapter headings, the first half of the couplet surmises the chapter's beginning, while the second half its end, grasping each chapter not as an expressive totality but a loosely connected series of events.[136] The title of the June 16 letter, "My Two Legs Deserve Prime Credit for Filming | Tai'erzhuang Controls Two Rail Lines," gives voice to Sun's ambulatory attentions, which shift from scenery to Tai'erzhuang's strategic value at the intersection of two railway lines. The dispersive mode of narration is doubled in Sun's characterization of legwork as central to achieving the experience (*jingyan* 经验) necessary to escape the

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[135] The volume was published as Sun Mingjing, *1937 nian Zhanyun bianshang de lie ying* (Jinan: Shandong huabao chubanshe, 2003). Unless otherwise noted, I will be using the Sun Jianqiu's 2006 translation, see Sun Mingjing, *Filming as War Clouds Loom in 1937—6000km with a Cinecamera* (Beijing: Foreign Languages Press, 2006). The original title contains more poignant language that is lost in translation, better rendered as "Hunting for Shadows as War Clouds Loom in 1937."

[136] For example, Chapter 15 of the famous Ming dynasty novel *Water Margin* (Shui hu zhuan, known in English as *Outlaws of the Marsh)* is titled "Wu Yong Persuades the Three Ruan Brothers to Join | Gongsun Sheng Becomes one of the Righteous Seven." Shi Nai'an, *The Water Margin: Outlaws of the Marsh*, trans. Sidney Shapiro (Beijing: Foreign Languages Press, 2001).

iterative textuality of "copying straight from books." Pedal navigation with a camera offered the possibility of seeing the world anew, capturing the most "valuable shots" in "ideal angles," thus transforming it into a "grand studio." But as the letter's readers already know, Sun is not walking ten thousand *li* in north China, but taking trains in what was perhaps continental East Asia's most concentrated rail corridor, consisting of Chinese, Russian, and Japanese-owned tracks. The line "so the train pulled into Tai'erzhuang…" cites the movement of the train as the basis for a spatiotemporal pivot: the reader is taken from Sun's Vertovian ruminations to a social scientific description of Tai'erzhuang as a "village of 3,000 households," sitting 40 kilometers from two railway stations, which, in turn intersected two other rail lines in a triangular formation.[137]

Such a pivot underscores the difference between Sun's celebration of the feet as a transport vector and the modernist documentary aesthetics exemplified by Dziga Vertov's *kino-eye* and the city symphony tradition. Vertov declared the kino-eye "forever free of human immobility" due to its *a priori* affinity to technological vectors of movement, which hold vision captive instead of the other way around.[138] As Virilio has shown, Vertov's "poetry of machines" is vision hijacked by modern war, which turns the instantaneous space of visibility into the paradigm through which once continuous movements are evaluated, taken apart, and reformed.[139] The work of film art as a surface for connecting the "heterogeneity of perceptual fields" discussed in chapter 3 thus

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[137] Sun, Ibid, 61.
[138] Dziga Vertov, "We: Variant of a Manifesto," in *Kino-eye: Writings of Dziga Vertov,* ed. Annette Michelson, trans. Kevin O' Brien, (Berkeley: University of California Press, 1984), 8.
[139] Paul Virilio, *War and Cinema: The Logistics of Perception,* trans. Patrick Camillier (London: Verso, 1989), 20.

paralleled the battlefield itself as a problem for pure vision.[140] The value of the moving image, in Vertov, is its capacity to link up to other images such to connect them into a "rhythmical and artistic whole, in harmony with the properties of the material and the internal rhythms of each object."[141] Whereas Vertov is guided by the artistic whole, and thus by the image as a problem of pure vision, Sun remains guided by his feet, available train routes, and the reach of his institutional contacts, which disperse the aesthetic, strategic, and educational significance of his footage across a disjunctive geography.

How uneven development inserts itself in the interstices between war and cinema, a question posed in the previous chapter, can now be answered to some degree. For Vertov, who also lived a paradigmatic case of uneven development, it was not infrastructure but art that enabled cinema to be lifted off its feet and into the dromocratic rhythms of modern machines. Peter Bürger's thesis on the European avant-garde, that its desire for heterogeneity nonetheless assumed the coherence of the work as a hermeneutic surface, applies here, where the abstract principle of the "rhythmical and artistic whole" offers the minimal degree of totalization necessary to subject the heterogeneous to the structure of dialectical expression.[142] As Lefebvre notes, the aesthetic, considered in Western modernity as a region autonomous from instrumental reason, is the product of an intensive spatialization, where art is consigned to leisure time and the use of surplus distinct from production.[143] The Soviet avant-garde took up this spatialization and turned

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[140] Virilio, 20.
[141] Vertov, 8.
[142] I have referenced Burger in chapter 1, n76 as well. See Peter Bürger, *Theory of the Avant Garde,* trans. Michael Snow (Manchester: Manchester University Press, 1984). Said differently, by Heidegger, "the work holds open the Open of the world." See Heidegger, *Poetry, Language Thought*, trans. Albert Hofstadter (New York: Harper Colophon, 1971), 45.
[143] Lefebvre, 77.

it upside down with the figure of the constructor-artist, whose art, in its play, excess, and indeterminacy, would double as a model for engineering the new society.[144] Turned against its bourgeois sequestration, the space of art acquires a determining consistency, akin to the pure vision of war, a fact Boris Groys registers when he asks what it would look life if the avant-garde, rather than being repressed by Stalin, were given unchecked political power.[145] Sun Mingjing, a filmmaker by trade but engineer by training, lived in a context where models for artistic autonomy had little purchase. He was caught in the rough edge between engineer and the artist. It should be recalled that uneven development, in its full sense, means not only the broad geopolitical asymmetries of *underdevelopment* but also the unevenness between social sectors within any society. What development critics later called the "development of underdevelopment" thus comprises a process in which developmental programs meant to correct underdevelopment redistribute a given society's internal unevenness, thus engendering new class conflicts, economic crises, and logistical frictions. As I have been arguing over the past few chapters, educational cinema, as a developmental program, is plugged into both senses of unevenness. It comprises a document of non-synchronicity defined neither by aesthetic closure nor by developmental policy, but is marked by both. In Sun's letter, which is itself a document of spatial practice and landscape, this non-synchrony appears

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[144] Rancière discusses this, for example, in his reading of Eisenstein; *Film Fables,* trans. Emiliano Battista (New York: Berg, 2006).

[145] The Soviet avant-garde's problem was not "how to create art that would be liked or dislike by the elites or the masses, but how to create masses that would appreciate good—namely, avant-garde—art. The Russian avant-garde did not want to submit its artistic practice to the aesthetic judgment of the public, but rather submit the public to artistic judgment" and so on. Boris Groys, *The Total Art of Stalinism: Avant-Garde, Aesthetic Dictatorship and Beyond* (London: Verso, 2008), kindle. The problem with this analysis is of course the degree to which Groys takes the manifestos of the avant-garde for their word.

in the slippage between the "grand studio," the work of the feet, and travel on trains. Sun's journey was, indeed, made possible by the highly developed rail system in northern China, a fact referenced in the previous chapter. The same rail infrastructure would become the fulcrum for the Japanese advance south less than one month later; it would also be the vector by which Chinese communist armies swept Northeast China in 1946.[146] Such tracks, while conditions of possibility for Sun's filming, nonetheless do not exhaust it, since Sun ventures off track on his feet, into multiple locales, in some instances guided by institutional contacts. At another level, the world as a "grand studio" presents another genre of spatial organization, here beholden to the demands of cinematography and editing.

Xuzhou Scenes (*Xuzhou fengguang* 徐州风光 1937), the first film Sun shot on his journey north, begins with a pan across landscape, with a title that identifies the city as "a key military location" proceeded by shots from its train station, with trains both leaving and entering. The strategic significance of the train station is emphasized by the fact that Sun and his assistant had been stopped from filming upon first arrival by military police, who suspected them of being spies. The film then continues the standard repertoire of scenery films, showing street scenes, rivers, the city gate, a women's school, with its dormitory located in the historical Overlord Tower (*bawang lou* 霸王楼), a park, a mountain (Yunlong mountain), an athletic stadium, a well, and the suburban farmland beyond the city. Many of the sights are introduced with birds-eye panoramas, likely filmed from the top of Yunlong mountain, which function as establishing shots for the

[146] For the latter see Harold M. Tanner, "Railways in Communist Strategy and Operations in Manchuria, 1945-48," *Manchurian Railways and the Opening of China: An International History,* eds. Bruce Elleman and Stephen Kotkin (Armonk NY: M.E. Sharpe, 2010), 149-70.

particular activities depicted. As Gunning notes (here citing scholars such as Kirby and Schivelbusch I have elsewhere discussed), the "panoramic view," one of the most common shots of early travelogues, is inseparable from the modes of perception authorized by modern transport.[147] In this case, the panorama is hooked into the city's physical geography and infrastructure. Together, they form a peculiar network, connecting modern institutions (the schools, train stations, paved streets) with geographic features (the high mountaintops and the low rivers), in turn transforming local realities (the street peddlers and the farmers) into sights to behold. Modern military vision, which is itself premised on beholding the world into a sight cum target, thus appears as the counterpart of the tourist gaze of the scenery film. Yet, whereas one aims to destroy what is seen and the other to preserve it in image, they nonetheless accord a different order of value. In one of the film's shots, the camera pictures a pavilion above which an airplane circles, likely a military plane given the nascence of civilian aviation at the time. Here, as with the train station, Sun's panorama is hemmed in by other more malevolent gazes, the presence of which gains in hindsight.

From hindsight, the films Sun shoots over the course of his northern journey all take on the tenor of impending war, where the difference between aesthetic and strategic value is infinitesimal. *Huaibei Sea Salt* (*Huaibei hai yan* 淮北海盐), documenting salt production in Huaibei, thus connects beautiful vistas of the salt fields to a production process whose taxation comprised a major source of governmental revenue. The salt administration, after all, was one of the state's most efficient bureaucracies, having carved out semi-autonomy from the ruling Party due to internal professional norms that it

[147] Gunning, "The World Within Reach," 35.

had sustained over the course of several regime changes.[148] Filming in Huaibei, Sun would meet salt czar Miao Qiujie, with whom he would later coordinate the filming of *Zigong Salt Wells* (*Zigong jingyan* 自贡井盐 1938).[149] Coincident to filming the salt fields, Sun took a detour to Lianyungang, a strategic port, but also a place where the "mountains were green and the water blue," before continuing to the state-of-the-art Chung Hsing coal mines, managed by a German engineer.[150] While *Coal Mining* (*Kai cai meikuang* 开采煤矿 1937) begins and ends with establishing landscape shots—of workers entering the mines and of coal delivered out of it—the film's crux takes place in cramped mining shafts where the miners use pressure guns and electrical rock cutters to pulverize coal, which they then place on conveyer belts. As Sun reported, due to the well ventilated and electrified mine shafts, the use of arc lights was permitted underground, enabling him to light up his subjects.[151] As a way of visualizing the coal mine's modern ventilation and water cooling systems, Sun resorted to having his assistant wear one of two black shirts, inscribed with the characters "wind" and "water" as he wandered the ventilation and water tunnels. The interiors of the coal shafts were thus less landscapes in the strict sense, since they cannot be "surmised" in one glance but must be elaborated by capillary travel, or alternatively, through the central control system. Indeed, at a late point in the film, Sun enters the control room of the mine, where he films the gauges and levers that, in effect, comprise substitutes for panoramic perception. A technician pulls the lever,

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[148] See Julia Strauss, *Strong Institutions in Weak Polities: State-Building in Republican China, 1927-1940* (Oxford: Clarendon Press, 1998).
[149] Sun, *Filming as War Clouds Loom,* 42. The salt administration's tax polic was also one of the most well-equipped and trained military units in China.
[150] Sun, Ibid, 62.
[151] Sun, Ibid, 63.

and the gauge goes down. *Coal Mining* is listed in the catalog as an industrial education film, not a geographic scenery film, but read as a scenery film it reveals a sense of their difference. Whereas scenery situates industry within a "landscape" that can be surmised in a view, the industrial process sucks the landscape into other spaces that can only unfold temporally. At their limit, however, the scenery and industry films become war films.

Chemical Defense (*Fang du* 防毒 1936)*,* one of the most popular films produced by the Jinling University, begins in a laboratory with a white-coated technician, who is played by Sun Mingjing himself. On a chalkboard, the technician writes out the chemical formula for chlorine gas: $4Hcl + MnO_2 = Cl_2 + MnCl_2\ 2H_2O$. Bringing to his nose to a vial labeled with the formula, the technician collapses to the ground. The gag crowns the irony already present in films like *Famous Sites of Suzhou,* where the filmmaker's cameo appearances function as a lead-in both connecting and barring the spectator from the depicted space. Similarly, the assistant wearing the shirt printed with "Wind" and "Water" translates the coal mine's invisible control system into a readable metaphor, just as the lecturer's pointer translates between silkworm model and caption. Yet the reality of such denotations is elusive precisely because it can only be metaphorical: nothing in the image or the editing enforces a necessary reading where the word on the shirt of the assistant signifies what it refers to. In *Chemical Defense,* however, the translation between the alien chemical formula and its ultimate meaning gets its clearest iteration, in the play-acted death of the filmmaker-technician-teacher. The film, designed to address the "national knowledge predicament concerning chemical warfare," proceeded with similar exercises surveying common chemical agents including tear gas, mustard gas and

diphenylcyanoarsine.[152] The first reel of the three-reel film reiterates a pattern: from the chalkboard to the laboratory and into the field, where its viewers could observe the effects of what was concocted in sterile laboratories with arcane inscriptions. The indeterminate relations between writing and life is solved, if allegorically, by the fact that what is on the chalkboard moves into the laboratory and finally into the human respiratory system. In its cycled continuity, *Chemical Defense* demonstrated to an audience that ranged from university students to farmers how this alien world of scientific knowledge impacted human bodies, if only in the fashion that resounds of the "example" (*shizhong* 示众) Lu Xun witnessed in the Sendai classroom. The fact that the film was shot on a miniscule budget, on the Jinling University campus itself, featuring as extras university students and Nanjing civil service employees on chemical raid training, does not obviate its deadly movement but heightens it by grasping the image as a functional interface rather than a surface for ideological reality effects. The industrial film becomes a war film when the explanatory translation between machine and its captions turns fatal.

The scenery film, on the other hand, admits a higher degree of ambiguity. After filming the coal mines, Sun Mingjing joined a scientific expedition (*kaocha tuan* 考察团) to northwest China, during which he spent a month in the border province of Suiyuan, where he produced the film *Suiyuan Province*. From there, he journeyed along the Great Wall to reach Beiping (Beijing), during which he made a film about the ancient fortification, an obvious allegory for the current defense situation. Finally arriving in

[152] Kexue jiaoyu dianying weiyuan hui, "Fang du yingpian shezhi jinggguo ji shuoming," *Kexue jiaoyu* 3.1-2 (1936), 72.

Beiping, Sun shot *Beiping, Our Old Capital* (*Gudu beiping* 古都北平), which took interest in the city as a historical monument, and *Lanzhou Shadowplay* (*Lanzhou yingxi* 兰州影戏), which explored the Chinese pre-cinematic art. After the outbreak of the Marco Polo Bridge incident, Sun boarded the last southbound train from Beiping before train travel from the north was shut down.[153] In 1943, several of the films from his journey north, including *Coal Mining* (now titled "Chung Hsing Coal Mine") *Huaibei Sea Salt, Suiyuan Province, Beiping: Our Old Capital* and *The Ten Thousand Li Great Wall* were combined with *Our Capital, Scenes from Qingdao,* and *Buddhist Pilgrimage to Yunkang* to make an omnibus program entitled *Return our Rivers and Mountains* (*Huan wo he shan* 还我河山).[154] In this omnibus program, the indeterminacy and fluid perception previously framed by tourist networks takes on a different signification. What were once landscapes of differential access were now mementos of national space occupied by the enemy, from which all the Chongqing spectators were cut off. The absolute cut separating the image from its referent, however, had the paradoxical effect of lending reality to the "shadows" that Sun Mingjing had captured on his ten thousand *li* journey. The landscapes now became fetishes for nation, where the question of who truly possesses the "our" in "our rivers and mountains" is obviated by the stark fact of their dispossession.

The phrase "Return our Rivers and Mountains" also appears at the edges of the diegesis in *Zigong Salt Wells*, shot in 1938. Although also labeled an industrial education film, its relation to landscape is pronounced. The film, a product of technical cooperation

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[153] Sun, 285.
[154] "Jinling daxue ji gongying huan wo he shan," *Dianying yu boyin* 1.7-8 (1942), 38.

with the salt administration under Miao Qiujie, was to be Sun's first assignment since the outbreak of war. With the coastal salt supply cut off, the famous salt wells in Zigong, Sichuan became an important strategic and fiscal asset, supplying both salt and tax revenue for the military and the estimated 16 million refugees in Western China.[155] In order to meet the increased demand, the Finance Ministry issued an order for Zigong to double its salt production within three years. When Sun Mingjing arrived in Zigong in late April of 1938, the city had yet to be incorporated, comprising two separate municipalities Ziliujing and Gongjing.[156] The film, which begins with street shots of the two cities, in fact, performed their unification by showing how they were connected by shared deposits of brine and natural gas as well as a vast network of bamboo pipes designed to transport one to the other.

Salt Wells follows schematically the process of salt extraction and transport, in the manner of the industrial process chronotope discussed in Chapter 2: wells are drilled to access the saline table; brine is brought to the surface with hollow-valved bamboo tubes pumped up and down by steam power. The brine is then lifted by the bucket load to the top of a derrick and sent through bamboo pipelines that run for miles before ending up over natural gas reservoirs where it is boiled down in cast-iron vats and shipped. Unlike most previous productions, the film makes use of an opening sequence before the title card, which proceeds with a series of pans across a landscape rendered imposing by silhouetted brine derricks (figure 4-15). The titles inscribe the images in geographic

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[155] Yan Yuejiao and Zhang Liangyou, "Zigong yanchang zai kangri zhangzhen zhong de diwei he zuoyong," *Yanye shi yanjiu* 4 (1991), 49-53. Also see Julia Strauss, 96-8.
[156] Sun Mingjing, *Sun mingjing shouji,* ed. Sun Jianqiu and Sun Jianhe (Beijing: Shijie tushu, 2013), 81.

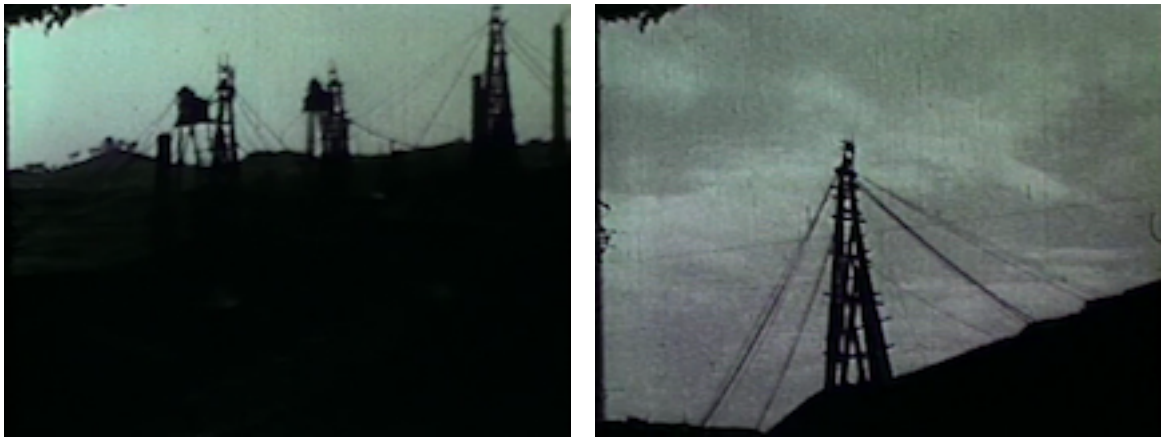

Figure 4-15 Opening pans. Stills from *Zigong Salt Wells* (1938)

Figure 4-16 Pans across the bamboo pipes. Stills from *Zigong Salt Wells* (1938)

context, noting Ziliujing and Gongjing's status as the salt producers and their incorporation as Zigong, followed by a birds-eye panorama across Ziliujing and street level shots down the main road in both towns, which are bustling with foot traffic. Such conventions, which were not alien to the industrial film genre, nonetheless are amplified in *Zigong Salt Wells,* perhaps because what is being depicted is not a state-of-the-art industry but a concatenation of methods involving steam power, draft animals, and human powered contraptions—calling for "landscape" rather than "industry." Moreover, panning shots follow the lengthy bamboo pipes from the brine wells to the natural gas deposits, thus reproducing the flow of brine water as a landscape in movement (Figure 4-16). The film was produced under natural lighting, resulting in underexposed interior

Figure 4-17 Interior Shots. Stills from *Zigong Salt Wells* (1938)

shots that, at the same time, heightened the contrast between the whites and darks. Qualia such as the fire inside the steam boiler, the white of the floating foam, and the sunlight catching on the surface of the brine are given special intensity, an almost ghostly hue (Figure 4-17). After the salt has been packaged and delivered to the river, the film closes on a birds-eye shot from a hill overlooking the formation of boats on the river, on which finished salt is transported in and out of the city. On the sloping bank on the far side of the river are inscribed the words "Return our Rivers and Mountains" (Figure 4-18).

Figure 4-18 Shipping finished product. *Zigong Salt Wells* (1938)

At the edges of the diegetic space the four characters resound as clarion cry. The opening and closing shots from a birds-eye view on the mountaintop circumscribe the production process by opening it up to the general circulation of waterways, on which the salt is delivered, and which if followed, run into the territory of the enemy. The rivers and the mountains mentioned in the text rhyme with the water and hills pictured; what must be returned, however, are not the rivers and mountains we see but those farther away in occupied lands, to which the depicted river may lead. If in the omnibus program *Return our Rivers and Mountains,* landscape functioned as a fetish for national space, in *Salt Wells* word and image produce a split presence, a landscape that stands for all Chinese landscapes, yet distressingly circumscribed by its particularity, the fact that it is one but not all. In a sense, the poorly lit interiors of the film, the backlit silhouettes, and the strong contrasts between light and dark can be read in the same way. The lack of light, not a poetic choice but a technical limit, nonetheless grants the film an electric charge, where darkness is not lack but denial. If in *Chemical Defense,* the collapse of the visible into the chemical formula is fatal, in *Zigong Salt Wells,* this collapse is rendered as visible landscape in which figure and background redistribute into a moiré of chromatic contrasts. The brine derricks in figures 16 and 19, which in a traditional landscape would have anchored land and sky, appear instead as imposing shadows pasted against a firmament that threatens to consume the earth. The fatal attraction of light, electricity, fire, sky—that is, modernity offered through what Virilio would have called the logistics of perception—is thus made present as the inferno on which the ancient industry, consisting of an uneven mélange of bamboo and steel, is painted and subsequently construed as symbol of national industrial might.

Figure 4-19 Landscape. *Zigong Salt Wells* (1938)

The Global Network and the Western Frontier

The foregoing analyses of educational film landscapes may strike the reader as hopelessly allegorical, if not completely speculative, since in them, I make sentences stand in for pictures and their temporal metamorphoses without, at any point, proving that the words and concepts I use are in fact the correct ones to be using in the first place. Such is no doubt the fault of criticism when removed from its firm grounding in tradition; what was once taken on faith, or worse the certainty of a shared reality, must now be taken out on credit.

Decentered from its perspectival point of mastery, landscape too can only have allegorical meaning, subject to the circumnavigations of spatial practice. In 1940, Sun

made a trip to the United States in order to study audiovisual education facilities. He had a modest amount of luggage with him, including copies of *Zigong Salt Wells* (now "Chinese Salt Wells") and two other scenery films he had recently made, *The Life of the People in Sikong* (Xikang) and *Mr. Emei.* During the final months of 1940, Sun traveled from Rochester, New York to Minneapolis, Minnesota, with stops in Cleveland, Chicago and Madison, screening the films to Chinese émigrés and audiovisual education personnel along the way.[157] In Minneapolis, he settled down for a two-month work-study with University of Minnesota's Audio-Visual Education Services, where he drafted English language lecture commentary for all three of the films. Next to the opening derricks of *Zigong Salt Wells,* Sun writes: "Does this remind you of Pittsburgh? But instead of producing oil, these derricks are for the salt and natural gas industry."[158]

Through landscape, which is after all not genre but a medium of exchange, the Chinese educational filmmaker connects two divergent geographies—Pittsburgh the early U.S. petroleum capital and Zigong, the wartime salt capital of "Free China"—while simultaneously dividing them. Here, the intensity of the contrast between earth, towers, and sky achieves actualization at another node in the global network. According to typewritten notes, Sun introduced the film to a meeting of engineering professors at the University with an anecdote concerning "non-sliding slide rules."[159] For engineers, slide rules not only facilitated mathematical calculations, but also offered a reference for determining the quality and quantity of materials for use in construction. As Sun

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[157] Swen Ming-ching to Oliver Caldwell, December 30, 1940, Archives of the United Board of Christian Higher Education in Asia, Mfilm reel IV 87. Henceforth UBCHEA Archives.
[158] Swen Ming-ching, "The University of Nanking Presents a Film on Chinese Salt Wells," Archives of the United Board of Christian Higher Education in Asia, Mfilm reel IV 87.
[159] Sun to Caldwell, 11 Feb, 1941, UBCHEA archives, Mfilm reel IV 87.

observed, however, the Chinese engineer frequently found such computational tools unusable since: "They may find that No. 14 wire is out of stock; they may find that silicon steel is as precious as gold. They may find that no I beam or U channels are available, and bamboo pipes only [sic] could be used as substitutes. Thus they are forced to leave their slide rules non-sliding and work with more or less different engineering languages as engineers here are using."[160] The comment was, no doubt, Sun's way of raising awareness about the lack of construction materials in Chinese rear-front areas, yet placed in conjunction with the film, the "non sliding slide-rule" took on a poetic charge as well. The slide-rule, a familiar object in the world of engineering, appeared to Sun as a salient means to communicate China's war-enforced underdevelopment to his interlocutors. Yet, on technical grounds, Sun is mistaken since slide-rule in principle could be redesigned to enable calculations for any material on hand, including bamboo. Conflating the slide rule as technical principle with its off-them-market form, Sun made visible another way in which underdevelopment infected its representation. For not only did China lack modern construction materials, it had an oversupply of slide-rules manufactured with those materials in mind, which in their reified materiality also fixed the engineering imagination. Separated from its technological milieu, the "non-sliding slide rule" is transformed into the measure of China's technological backwardness.

Sun moves from describing slide-rules to "rules in general," noting that in ancient China the length of a foot corresponded to the length of the bamboo pipe necessary to produce the pitch of the "Hwang Chung" (*huang zhong* 黄钟), a yellow bell of legend

[160] Ibid.

whose sound was said to be the absolute measure of measure.[161] However, as the lecturer notes, in practice the Hwang Chung was to become "one among at least one hundred of the known standards that could be traced from literature." This multiplicity of measures, which confounded the first generation of Chinese engineers trained in the West, was finally subdued in 1929, when China became "naturalized in the kingdom of the metric system."[162] "Kingdom" is indeed the correct word for Sun to have used, since in the Chinese tradition, the yellow bell was what a long line of Chinese sovereigns claimed to have sounded as they brought all under heaven into harmony.[163] If in their original French instantiation, the metric system purported to separate measures from the bodies of sovereigns, subjecting them rather to uniform rules of conversion, from the other side of the non-sliding slide rule they were coextensive with political power. From within the "kingdom of the metric system," Sun may only speak of the others, the "more or less different engineering languages," as if speaking of another world. "There are," Sun continues, "old pieces of engineering work that marvel anyone, modern engineers as well," with which he raises two examples: the irrigation works near Chengdu and the salt wells in Zigong. Here, Sun raises the mélange of bamboo, steel, humans, oxen, natural gas, salt, fire, and steam that comprised the salt-well infrastructures to a higher power: they become wonders of ancient China, made available to the American imagination by the serendipity of cinema.

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[161] I will continue to use Sun Mingjing's transliteration of the word for clarity.
[162] This official conversion also created the necessity of converting between vernacular measures and official ones.
[163] Haun Saussy, *The Problem of the Chinese Aesthetic* (Stanford CA: Stanford University Press, 1993), 100.

Sun's trip to the United States, however, also involved a different kind of global exchange. Earlier in 1939, University of Nanking (Jinling University) motion picture department had applied for a twenty-thousand dollar grant from the Rockefeller Foundation for the purchase of equipment and teacher training. In order to vet the audiovisual department's quality, Humanities Division head John Marshall devised to first invite Sun for a tour of the U.S., without of course telling him the purpose of the invitation.[164] So far he was doing a stellar job, as attested in a commendatory letter from Oliver Caldwell, one of Sun's New York contacts and the China point-person for the United Board of Christian Higher Education in Asia, which managed the eight protestant universities now in Chengdu.[165] On the other hand, archival records show that the Pulitzer-prize winning novelist Pearl Buck, best known for her depiction of Chinese village life in *The Good Earth,* was not impressed. Telling the Rockefeller officers that she did not believe the films addressed "the real needs of the people," she suggested that in China's illiterate environment it was necessary for films to "illustrate not only phases of [the people's] own lives, but which show how problems similar to theirs are solved in other countries."[166] Buck's comments notwithstanding, Sun reported upon screening his films to the visual education department at the University of Minnesota that "these people who are critical in the technic [sic] of cinematography were so much absorbed that they didn't care much about the defects on the technical side."[167] Convinced he had found a venue for the globalization of Chinese cinema, Sun speculated on having the films

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[164] John Marshall to J.B. Grant, 23 June, 1939, Rockefeller Foundation Archives, Sleepy Hollow, NY, Record Group 1, Series 601, Box 50, Folder 418.
[165] Caldwell to Swen, UBCHEA Archives, Mfilm reel IV 87.
[166] Memo from Schlesinger to Marshall, Jan 1 1940. Rockefeller Foundation Archives, Sleepy Hollow, NY, Record Group 1, Series 601, Box 50, Folder 418.
[167] Swen Ming-ching to Oliver Caldwell, 30 Dec, 1940. UBCHEA archives, Mfilm reel IV 87.

distributed in the U.S., promising in turn to record his commentaries on disk. As an aside, however, he noted his belief that "silent films have wider distribution."[168] In a 1942 issue of the Chongqing periodical *Film and Radio,* Sun continued his speculation that "ordinary [American] citizens want to see more Chinese films," but were denied their curiosity due to the gatekeeper function of commercial cinemas. "Big productions with high propaganda value are shot in 35mm," he writes, and as such they lacked the technical quality (*jishu* 技术) to compete with Hollywood. 16mm would, however, be the path to the U.S. audience, through schools, offices, and government agencies. "In terms of technical quality, 16mm is not comparable to 35mm," he concludes, "What is important is the subject. If the films are rich in content, if what they say is substantive (*neirong chongshi, yan zhi you wu* 内容充实，言之有物), they will leave audiences satisfied."[169]

The expression Sun uses for "if what they say is substantive" resounds with what I have illustrated in the previous chapter as the May Fourth question of linguistic vitalism, routed through infrastructural technologies. Opposing "technique" to "substance," Sun seeks to divide film form from the vitality it transports. In the typewritten commentary to *The Life of the People in Sikong* (*Xikang shenghuo* 西康生活), another one of the films he had brought with him to the U.S., Sun extends this notion to spectatorship with two vague comments. The film, shot in the newly christened province of Sikong (Xikang) over the course of 1939, proceeds like many of Sun's scenery films, depicting landscapes, lives, handicrafts, customs and transportation, except in it the anthropological interest is

[168] Swen to Caldwell, Ibid.
[169] Sun Mingjing, "Daxue tuixing jiaoyu dianying ju li: meiguo ming li su da daxue shijue jiaoyu fuwu gaikuang," *Dianying yu boyin* 5.1 (1946), 12.

heightened. Carved out of Eastern Tibet and Western Sichuan, Xikang was an ethnically diverse region consisting of Tibetan, Han, Lolo, and Yi nationalities. It was recognized as an autonomous province in 1939 as an olive branch to the warlord Liu Wenhui, who controlled the region and had no natural loyalty to Generalissimo Chiang Kai-shek.[170] To gain his allegiance and in exchange for troops, Chiang offered to name him governor and supply generous funds and experts for development. In this developmental project, which more clearly links landscape to prospecting, *The Life of the People in Sikong* played a role. To "develop the natural resources of this part of the country," writes Sun in his English commentary, "it is necessary for [the Chinese] to understand the people of Tibet." Then vaguely, he notes: "this too is of interest to the people outside of China."[171]

What could this interest have been? In what way did it coincide with United States' own film practices and the educational discourses that had its own distributions of "technique" and "substance"? In order to answer to this question, and to conclude, I will compare *The Life of The People in Sikong* with another film on a similar subject.

In 1940, Electrical Research Products Incorporated (ERPI) released a sound film, *The People of Western China,* with footage shot primarily in the city of Chengdu and its environs.[172] The film, which the University of Minnesota's audiovisual education services had in its collection, was made with the cooperation of the Sun's contact Oliver Caldwell. "Back from the waters of the yellow sea, far inland from the Eastern plains, lies a valley of Western China. Cradling the valley are lofty chains of mountains, to the east,

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[170] "The University of Nanking presents a film on *The Life of the People in Sikong*," Archives of the United Board of Christian Higher Education in Asia, Mfilm reel IV 87.
[171] Ibid.
[172] The film is available for viewing at the following link: https://archive.org/details/Peopleof1940 (Accessed 18 May, 2017).

to the north, to the west. For longer than written history has recorded the deeds of men, these mountains have loomed in silence over life in the valley below," the voiceover begins, juxtaposed with pans and still shots of an agricultural valley flanked with mountains. "For longer than written history" cues the shot of a four-storied construction with imposing classical eaves, which rises up against the sky and the mountains behind. "Loomed in silence over life in the valley below" is met with a shot of the valley from a high point, either the mountaintop or the building in question. Although acknowledging the aspect of mass Western migration from the East, the lyrical voice-over, which repeatedly emphasizes the "for longer than written history" or "for thousands of years," affects a cosmic view, in the previous instance literally embodying the view of the mountains. "Written history," cropping up in the traditional structure, remains imposing against the even greater depth of the Land and the people purportedly rooted in it. Surveying topics such as technologies of irrigation, the manifold uses of bamboo, the art of pottery, and water mills, the film sustains a play between ancient civilization and an even more ancient Nature until the final few minutes, where the oscillation is interrupted by the appearance of "engineers from a faraway land," who bring in modern technologies, such as hydroelectric dams, electrical poles, and the airplane. The film displays and points out the degree to which such technology is built on top of ancient structures (the city wall, for example, or the automobile road stretching through farmland), establishing the coexistence of old and new. The narration of the latter remains on a cosmic register; the gift of modern technology into an otherwise unchanging China is told to the audience as a providential "there is," to which no human or sociological agency is ascribed.

Unlike the view aesthetic of the early travelogues, however, the voiceover does more than "give" the images from a vantage point that the audience presumably shares; it also penetrates the images with detail, elaborating the hidden threads that hold the shots together. Marveling at the fact that bamboo appeared to be in everything, from utensils to food and construction materials, the narration draws material links between the natural and human worlds, at the same time situating both on the register of the immemorial everyday, against which "dynasties rose and fell." Only when "to the land came electricity" did the film alter its place of enunciation. No longer speaking from immemorial nature (the mountains) from which culture sprung up, the narration shifts briefly to the perspective of technology itself. "There were men of the valley who mastered the skills required to handle this strange new force," the voice booms, "today electrical power lines cross over ancient city walls; wires that bring to valley homes signs of a changing world; electricity and new methods of lighting for the people of the valley; electricity and new methods of communication for the people of the valley; electricity and new methods of education for the classrooms of the valley." From the "there were"—cued to shots depicting an engineer inspecting a wall of dials and knobs, presumably at a hydroelectric plant, and spoken over a track of electronic beeps—the discourse disperses along with the electrical wires, reaching into an electrically lit dinner table ("lighting"), an office where a man is speaking on the telephone ("communication"), and the screening of a 16mm film in a classroom ("education").[173] The cosmic perspective becomes that of

[173] In a similar fashion, Jonathan Kohana observes how in the New Deal documentary *Power and the Land* (Joris Ivens 1940) electricity is more than a subject or even a metaphor, but is "present in the film's form of expression as in its content and their thematic harmony." See Jonathan Kohana, *Intelligence Work: The Politics of American Documentary* (New York: Columbia University Press, 2013), 133.

electricity, and importantly, of instructional cinema, or the "use of the fruits of science for instruction in science itself." As an iteration of the metaphorics of electrified education, *People of Western China* can barely avoid the reflexivity brought about by the image of the projectionist spooling 16mm film on the left third of the screen, stitched to a shot-reverse-shot with an instructor lecturing with a visual aid on the right. The instructor with the visual aid cued with "the use of the fruits of science for science itself" appears to refer both to the immediate image and the two shots that frame it, generating an indeterminacy that remains unresolved at the level of the audiovisual synchronization. Here, the "there is" is identified with the cinematic view itself, that the perspective of technology is the perspective of the voiceover, where the latter dissimulates a cosmic perspective.

Such dissimulations serve a specific function, warding off the anxiety of the view, the uncertainty concerning how the ground stands up against the sky for the student who sees them half a world away. The sound film appears, here, to correct the fragmentation of the earlier travel film, since it fills in the alibis and metaphors that swam freely in it with the Voice. The Voice speaks not as a lecturer inhabiting crisscrossing networks of ocean liners, roads, and railroads, but as a Presence within the image itself (a presence that, when close-read, nonetheless fractures into a heterogeneous network of enunciation—cosmos, nature, electricity, cinema).[174] Here, in the sound film built on the

[174] Arguably, it was Basil Wright's *Song of Ceylon* that first brought home the relations of interference between voiceover, Eastern cosmicality, and modern communications technology. Shots of majestic Buddhist temple iconography combined with telegraph beeps and orated shipping records created a complicated juxtaposition, on the one hand identifying the world market with Buddhist ek-stasis, while on the other presenting a jarring clash between tradition and modernity, East and West. Commentators have tended to emphasize the latter, but the former possibility of an *identification* of the empire trade with the religious sublime evoked by the

innovations of the New Deal documentary, the sky, which in this film appears just as malevolent as it did in *Zigong Salt Wells,* is stilled by a Voice that places the whole image in cosmic prehistory, absorbed by the spectator as "Western China," a timeless whole, becoming historical only by means of technological progress.

On the other hand, *The Life of the People in Xikang* (I will use the pinyin transliteration here), despite its explicit link to developmental prospecting, admits more multiplicity. In it, the sky, the light, and the rivers, the bamboo and the electric wires, retain their sense of capillarity. Beginning with images of the troop mobilization, the film situates itself in the present, making clear what grants the film its conditions of possibility: the exchange of development resources for armed men (figure 4-19). The film proceeds by dividing the "life" of people in Xikang into five categories: food, dress, dwelling, transportation, and recreation. The categories, save for recreation, superimposed terms from the Guomindang's New Life Movement, which identified food, dress, dwelling and transportation as aspects of national left to be "militarized, productivized and aestheticized."[175] The film then supplies images that correspond to each of the categories (figure 4-20): pans of fields of barley, a man threshing, a group of women making and drinking Tibetan buttered tea, the spinning of raw wool, a man in his traditional travel costume (consisting of an amulet and a sword), a woman showing the camera her dress

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Buddhist temple has rarely been explored. The poetic exposition enabled thus, in Nadine Chan's words, a "shared humanity through loyalty to empire." See Nadine Chan "'Remember the Empire Filled with your Cousins': Poetic Exposition in the Films of the Empire Marketing Board," *Studies in Documentary Film* 7.2 (2013), 115.

[175] For a discussion of New Life Movement and civil service during the war, see Federica Ferlanti, "The New Life Movement at War: Wartime Mobilization and State Control in Chongqing and Chengdu, 1938-1942," *European Journal of East Asian Studies* 11.2 (2012), 187-212.

Figure 4-20 Stills from *Life of the People in Xikang* (1939)

and braids, a group rafting across a strong current, and Tibetan llamas dancing, among other things. Such heterogeneity is expected from scenery films, but in *Xikang* the modern infrastructures shrink into the background while the ethnographic peculiarities proliferate. The film, along with other scenery titles shot in Western China, remains interested in transport motifs, which include the ceremonially armed men dressed for travel (the amulet and sword, Sun notes, are symbolic for safety) and the raft rowed across troubled waters. However, the value of such infrastructures becomes so marginal that the camera is stripped naked in its observation of phenomena. Gone are the day trippers of *Famous Sites of Suzhou,* but they are replaced by the people of Xikang themselves, who function as alien lead-ins, both inside and outside the image at once, displacing, yet inviting the spectator in.

On the exhibition side, the relationship between development and cinema was equally fraught. In his 1945 essay "Electrified Education and the Reconstruction of Xikang," Sun Mingjing reports on a second trip he made to Xikang in 1944, complaining that the flood of outside funds and technical talent authorized by Chiang Kai-shek had been unable to overcome the province's "anti-reconstruction" forces.[176] The latter were the anarchical elements that appeared between the major cities and towns. On the eve of the completion of the telegraph line connecting Tibet's Lhasa to Chongqing, troops in Xikang hijacked a shipment of metallic parts, melting them down into bullets. Locals stripped what existed of the telegraph line for parts. A similar fate met a modern bridge in construction over the Yalong river. Sun attributed the "anti-reconstruction" force to a lack of education; he proposed the use of electrical education implements as a way of

[176] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," *Dianying yu boyin* 3.7-8 (1944), 23.

"transforming the anti-reconstruction force into a constructive force."[177] "Electrified education," he argued, resolved fundamental problems that had frustrated traditional methods in effecting Chiang Kai-shek's policy of "moral transformation" (*dehua* 德化).[178] For one, the province's multi-ethnic makeup erected barriers in language, writing, customs, and habit, and the populace was still suspicious of schooling. The limited reach of national and provincial control also spawned banditry on the roads, rendering the task of the traveling lecturer perilous. Knowing no language barrier, cinema commanded the attention of all; moreover, the projectionist was able to gain welcome to regions controlled by wary nationalities (for example the Lolo, or Yi, peoples), where Han officials from the provincial government were barred.[179] "When the Bureau of Education's teaching team set up in Ba'an, really the whole town turned out, crowding into a plaza outside the city; too bad the heavens were not cooperative and it started raining. The film team was about to clear out when they noticed that the crowd hadn't budged. Moved, the projectionist screened the film in the rain. After two hours, the audience was drenched."[180] Staging a conflict between technology, nature, and human perseverance, such stories married the willpower of the crowd with the allure of cinema, for which the contingency of "the heavens" was a foil. Alongside cinema, Sun envisioned "schools of the air" where radio would circumvent the treachery of the road, enabling the

[177] Sun, "Dianhua jiaoyu yu Xikang jianshe," 23.
[178] Sun, Ibid, 24.
[179] Sun, Ibid, 24.
[180] Sun, Ibid, 24.

educators to remain within the gates of the provincial capital while addressing the masses outside.[181]

In the context of the unruly province, the enthusiasm for film and radio as a method of circumventing the messy geographic and ethnic heterogeneity of the region could not be greater. The 1939 scientific expedition to Xikang financed by the British Boxer Indemnity fund, to which Sun was attached, was divided into five groups: geology/geography, engineering, economy, society (sociology, history, archaeology, education), and agriculture. Their mission was to "survey" (kaocha) the province primarily in the interests of development and resource mapping.[182] Sun traveled with the geography group, shooting still photographs and motion picture footage that would later be edited into eight films, *Life of the People in Xikang,* as well as *A Glimpse of Xikang, Ya'an Border Tea, On the Sichuan-Xikang Road, Iron and Gold Mining, Provincial Capital Kangding, Scenes on the Plains,* and *Life of the Llamas,* all of which were screened in Chongqing in 1942. Keeping with the scientific nature of the expedition, Sun kept extensive survey notes, some of which were written in five-character parallel verse:

> Commerce is strongest in Garze (Ganzi) | The Temples are resplendent
>
> Pingba is fertile yet vast | Who will move there and cultivate it?
>
> DeGe has good scenery | The Lake by Mt. Le is worth seeing
>
> Yi mountains loftier than the Three Gorges| Alas not written of by Du Fu or Li Bai The forests are luxuriant yet handsome | No one has spoken of developing them

[181] Sun, Ibid, 25.
[182] Zhang Zhao, "Zhongying gengkuang hui chuan kang kexue kaocha tuan," *Kexue* 24.3 (1945), 240-1.

Copies of the classics in Xikang and Tibet| Have been sent to the press

A collection of tens of thousands | The noteworthy have been circulated

Twenty paper mills | With much material but lacking equipment[183]

The poetic composition may have been nothing more than a mnemonic technique, allowing its author to take down his impressions of the land in the most condensed form. Or it may have operated as a convenient way to organize a wide range of heterogeneous experiences while warding off the tedium of travel. In either instance, the incorporation of the discourse of industrial development with that of natural beauty is striking in its odd symmetry with imperial prospecting. The traveler has come upon what appears to him to be an untouched land, whose beauty rivals that recounted by the great poets, yet at the same time as he appreciates its beauty, he observes its potential for exploitation. The abrupt shift from nature to a discussion of printing presses and paper mills nonetheless follows the same formal structure established in lines two through five. In a symmetrical call and response, a proposition is first advanced ("Pingba is fertile yet vast") and then assessed in its relative value. The latter is lent an anticipatory tone, and always spoken from the perspective of the Han majority and its cultural-industrial predilections: lines two and five speak to the absence of agricultural and industrial development, while lines three and four assess cultural value, the latter by evoking two Tang dynasty poetic masters. Lines six through eight take on the same structure, where the press, national circulation, and equipment supply determine the anticipatory temporality in which the former finds its place. Although the later (unquoted) part of the poem continues in a fashion that breaks from this pattern, this particular fragment remains a telling

[183] Sun Mingjing, "Dianhua jiaoyu yu xikang jianshe," 22.

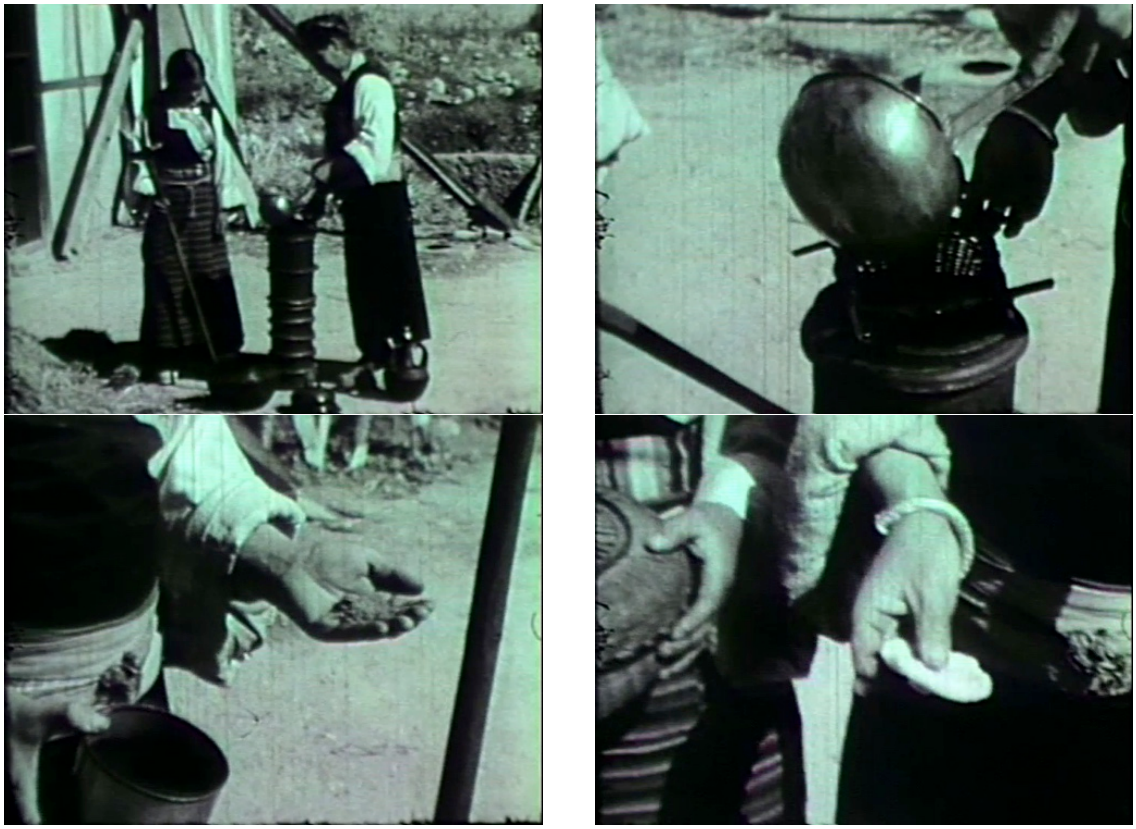

Figure 4-21 Stills from *Life of the People in Xikang* (1939)

articulation of how its author sought to incorporate alterity into form. The tourist's gaze is also the gaze of the prospector; scenery anticipates five-character verse (and thus the history of poetry), just as forests, valleys, and ancient scriptures anticipate the networks of Han civilization, industry, and technology.

Yet this anticipatory gesture, this gaze of prospecting inscribed within the landscape of parallel verse—a compelling Han poetics of organizing the world—remains equivocal and insecure, as if prepared to look away in shame. It resembles less the gaze implied by the teaching guide to *The Peasants and Shepherds of Manchuria* as those cast at the camera by the characters in *The Life of the People in Xikang.* One scene stands out, with which I conclude. In it two women are making butter tea with a piston and a churn. One appears older; they are in fact the two Tibetan wives of the Han missionary pastor Li

Guoguang, with whom Sun found a common language (figure 4-21).[184] The narration reads, "The tea is boiled until it appears as brown as coffee; then it is filtered while salt and butter are added. The piston is then plunged into the churn up and down repeatedly, and the tea is emulsified."[185] A series of close-ups ensue: hands pouring boiling tea water into a filter; then a woman holding salt in her palm, as if showing the camera, before letting it fall into the churn. The daughter uncovers a basket filled with circular slabs of butter; in a close-up her mother holds the slab for the camera before letting it fall. When the two women are depicted in long shot, their gazes are intermittently directed to the camera operator and toward the left of the frame, where someone appears to be standing (figure 4-22). They appear as if to react to instructions coming from outside the frame—the filmmaker, the husband, the thin infrastructures of the image. Frequent jump cuts intersperse the sequence, often punctuating the eye contact, as if suppressing the evidence of coaching from behind the camera; but the concealment of the camera is haphazard, leaving the undeniable trace of the dynamic play of camera and subject. The two women are as if suspended between the camera and the activity they have been asked to enact. As in *Silk* from Chapter 2*,* the preparation of butter tea appears as both exhibition and process, of ordinary people playing themselves before a global public. The latter solicits the former in a fashion similar to the structure of Sun's parallel verse. Yet, the passage from one to the other is neither complete nor reversible. Whereas on the one hand the film's subjects—almost always filmed in the midst of an activity—turn toward the camera, the camera also turns towards their activity. As with the industrial titles, close-ups of the hands constitute an involution of the camera's perspective; the hands grasp

[184] Sun Mingjing, *Dingge xikang,* ed. Sun Jiansan (Guilin: Guangxi shifan daxue, 2010), 94.
[185] "The University of Nanking Presents The Life of the People in Sikong," UBCHEA (op. cit.).

physically at what the camera grasps visually. Unlike in *Silk,* where the perspective of the camera is linked to a pre-existing grid of technological vision (the microscope, the inspector, the classroom), the act of vision in *Xikang* adopts a more precarious alibi. The woman who looks up from the microscope in *Silk* is taking a break from her work, which directs her sight to a circumscribed visual field distinct from that to which the camera is aimed; with her eye to the monocular lens, she does not share the world with the camera. When the camera takes her perspective, it does not share the world with her. The extreme close-ups in the butter tea sequence, on the other hand, occupy the same visual field as the work; the camera is thus made to waver between the two perspectives. The actor and the viewer are struck with the giddy discomfort of being present and absent to the image at the same time. In early travelogues, the people in the image would inevitably look back and audiences would be forced to register the uncanniness of a look that did not see. The returned gaze marked the camera as an intrusive gawker, breaking the predictable contours of commodified alterity. In Sun Mingjing's film, the skittish glances at the camera take on less of an oppositional character, although hindsight would perhaps lend them more force. Reacting to the silent voice from behind the camera, they inhabit the blurred contours of a "life" that has been caught aware by cinema in its blind movement across global networks.

Coda: Education and the Logistics of Perception

What I have offered in these pages is but a genealogical fragment, that is, a puzzle piece that does not fit the histories we tell ourselves in order to go to sleep at night. Genealogies, which are about ruptures, nonetheless do not gain their traction only on the basis of their iconoclasm against established truths, but on their utopian gestures toward the possibility of thinking and living differently. Around each fragment, new histories will have to be invented, new cartographies mapped. Such new histories and cartographies will be increasingly pressing in an age that belongs, in Jonathan Crary's words, to "the aftermath of common life made into an object of technics."[1]

In October of 1949, the victorious armies of the Chinese Communist Party marched in Beijing to commemorate the founding of the People's Republic of China, and their festivities were filmed in a style that rivaled the human ornaments of *Triumph of the Will*. The Nationalists fled to the island of Taiwan, where they entrenched themselves with the support of the United States, which came to understand the island as an "unsinkable aircraft carrier." The educational film institutions built over the course of the 1930s and 1940s also dispersed. The China Educational Film Studio and the Agricultural Film Studio, founded in Chongqing in 1942, had their equipment shipped to Taiwan, becoming, in turn, the start-up infrastructure for the Taiwanese commercial film industry.[2] Sun Mingjing stayed at Jinling University, now the University of Nanking, where he waited on the Rockefeller Foundation for a decision as to whether it would

[1] Jonathan Crary, *24/7* (New York: Verso, 2013), 29.
[2] Yingjin Zhang, *Chinese National Cinema* (New York: Routledge, 2004), 123.

continue to fund China's audio-visual education endeavors.[3] With the Korean war, such hopes were dashed permanently, and in 1952, subsequent to the massive criticism campaign against the Kunlun studio film *The Life of Wu Xun* (*Wu Xun zhuan* 武训传, Dir. Sun Yu, 1950), which told the harrowing tale of a beggar who raised money to found charity schools, both the commercial film industry and the university system were restructured, and Sun was transferred to Central Film Academy (later to become the Beijing Film Academy), where he was hired as a professor of cinematography. There he would teach technical classes until 1957, when in the midst of the Anti-Rightist movement, he would lose his post.[4] Rehabilitated after the Cultural Revolution, Sun returned to his post at the Beijing Film Academy, where he participated in a revived discourse on "electrified education," which was now entrusted with absorbing the American developments in educational technology that had taken place since the passage of the National Defense Education Act in 1958.[5] In the 1990s, "electrified education," now situated in the centralized public education sector, came to encompass computing as its central preoccupation. Sun Mingjing passed in 1992, after which his children took it upon themselves to have him recognized as a pioneer in Chinese documentary and audiovisual instruction. Their success in this was ensured when in 2002, China Film Archive researchers discovered roughly eighty of his films in an unmarked canister, deposited there in the 1950s as evidence of his political crimes. In 2006, the China Central Television aired *The Century in Long-Take*, a twelve-part television series

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[3] Rockefeller Foundation Archives, Sleepy Hollow, NY, Record Group 1, Series 601, Box 50, Folder 420.
[4] For an English version of the life story, see Zhu Ying and Zhang Tongdao, "Sun Mingjin and John Grierson, a Comparative Study of Early Chinese and British Documentary Film Movements," *Asian Cinema* 17.1 (2006), 230-24.
[5] Based on a perusal of articles in the journal *Dianhua jiaoyu yanjiu.* Xibei Shifan daxue.

working with the discovered footage, restoring them to the contours of memory with interviews and historical exposition. Sun Mingjing thus became known as the first Chinese documentary *auteur* and one of the pioneers of film studies in the Chinese university, a re-captioning that cannot be disavowed since its historicity sets out the conditions of possibility—the infrastructure—for what I have written.

Meanwhile, the educative function, once belonging to a specific distribution between commercial cinema, the state, and institutions of mass instruction, now became invested in a series of state run studios, which took on both the broad and narrow definitions. Feature film studios located in cities such as Changchun, Beijing, Shanghai, and Xi'an produced generally didactic titles, although ones that gained in concreteness due to their integration within specific political campaigns, which in turn functioned as "genres."[6] On the other hand, scientific and education film studios located in the same cities continued producing films about hygiene, industry, landscape, "ethnic minorities," and nature. Such films "while not as diverse in forms and colors as their artistic counterparts, which have the advantage of touching people's emotions, [were] nonetheless the trusted mother's milk made out of human knowledge," states a Beijing Scientific Education Film Studio working group.[7] Beginning in the mid-1950s, mobile screening teams were revived, and by the mid-1960s, they had expanded to such a degree that the problem of the rural audience was again posed. In a 1962 essay in *Film Art* for example, the critic Ke Ling lamented that the studio films shown employed jumpy editing and were of too fast a pace for peasants to follow. "We swallow whole Western cinematic

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[6] Yomi Braester, "The Political Campaign as Genre: Ideology and Iconography in the Seventeen Years Period," *Modern Language Quarterly* 69.1 (2008), 119-140.
[7] Beijing kexue jiaoyu dianying zhipian chang 'jianlun' bianxie zu, *Kejiao dianying jianlun* (Beijing: Kexue jiaoyu ji chubanshe, 1986), 4.

techniques without bothering to digest them," he writes, calling for Chinese filmmakers to draw from national artistic traditions in order to "honor the masses' perceptual norms [*ganshou guilü* 感受规律]."[8] Institutional breaks in continuity did not, in the end, overcome the continuity of the infrastructural problems facing the use of cinema as a tool for national pedagogy.

Such histories call to be written, and probed at their own genealogical edges. I will conclude, however, on a more familiar note that links the Chinese educational film to present formations of area studies and communications research.

In 1942, with the pacific war at full throttle and Burma occupied by the Japanese, "Free China's" only supply line to the outside world was cut, and with it, the supply of celluloid and access to photographic labs in Hong Kong. As a result, feature film production all but stopped, and educational film production, pursued mostly under the aegis of the newly founded China Educational Film Studio, made do by scraping off old celluloid, coating it with makeshift emulsions (which Sun Mingjing's wife Lü Jinai had pioneered), then developing it in Chongqing's many caves (which doubled as air raid shelters).[9] Under such conditions, even the production of educational shorts slowed to a crawl, while extant titles were systematically worn out with overuse and sub-optimal storage. In May of 1941, the U.S. Air Force initiated a systematic airlift program across the Himalayas, aimed primarily at sustaining the supply of military equipment, medical supplies, and industrial materials to "Free China," whose continued presence in the fight

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[8] Ke Ling, "Shilun nongcun pian," *Dianying yishu* 9 (1962), 59.
[9] Weihong Bao, *Fiery Cinema: The Emergence of an Affective Medium in China, 1915-1945* (Minneapolis: University of Minnesota Press, 2015), see chapter 5. Also Li Daoxin, *Zhongguo dianying shi* (1937-1945), (Beijing: Shoudu shifan daxue chubanshe, 2000).

was seen as essential to diverting Japanese troops from the pacific theater.[10] Under the aegis of the China-India-Burma theater, the airlift over "the hump," as it was called, was the first of its kind, constructing the technical and experiential basis for the Berlin airlift of 1948.[11] General William Tunner, who assumed command of the airlift operation in 1944 and is credited with rationalizing it to such a degree that he tripled tonnage while reducing the once massive accident rate to less than two tenths of a percent, described the hump as "the media by which the entire U.S. theater is supported."[12] Alongside tanks, antibiotics, and reinforced steel, the cargo planes also carried films, filmstrips, projectors, and microfilm, destined to the local sections of the Office of War Information and the State Department's Bureau of Cultural and Educational Services.[13]

The lesser-known "white propaganda" cousin of Office of Strategic Service (OSS), entrusted with intelligence gathering and psychological warfare (or "black propaganda") and later to become the Central Intelligence Agency, OWI-overseas was charged with disseminating information that benefitted the U.S. war effort in print, radio, and cinematic formats.[14] In Matthew Johnson's words, OWI activities, which expanded beyond Chongqing to Chengdu, Kunming, Yong'an, and eventually Yan'an, "used every means at their disposal to create a coherent, believable portrait of US war aims and the war effort that would appeal to Chinese audiences."[15] Meanwhile the State Department's

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[10] William Tunner, *Over the Hump* (New York: Booton Hendron, 1964), 11.
[11] Tunner, 133-4
[12] Tunner, 52.
[13] Wilma Fairbank, *America's Cultural Experiment in China, 1942-1949* (Washington: Bureau of Educational and Cultural Affairs, U.S. Dept. of State,1976).
[14] Matthew Johnson, "Propaganda and Sovereignty in Wartime China: Morale Operations and Psychological Warfare under the Office of War Information," *Modern Asian Studies* 45.2 (2011), 303-44.
[15] Johnson, 307.

cultural relations program to China, which pioneered the first Fulbright exchanges, contained a modest educational assistance package, where State would, at its discretion, send educational films, filmstrips, equipment, and microfilms of requested periodicals via diplomatic pouch over the hump.[16] Housed in the same office building and cross-employing the same personnel, OSS, OWI, and the Cultural Relations program were known locally as the U.S. Information Service (USIS, *Meiguo xinwen chu* 美国新闻处) and existed as one of many USIS branches established worldwide during the war and postwar era, later to be integrated into the Cold War propaganda organ, the United States Information Agency (USIA).[17] USIS offices, in turn, existed alongside a series of other international distribution organs, the British Ministry of Information, the U.S. Signal Corps, Sovexport Asia Corporation, United Artists, Metro Goldwyn-Mayer, Fox, Paramount, Warner, Columbia and Universal.[18] Together, they comprised a veritable international propaganda presence in the wartime capital. Their effectiveness, however, was dependent on a complex and dissynchronous network of Chinese exhibition stations. If on the one hand they functioned as "instruments of national policy with international reach" menacing the sovereignty of Chinese leaders, on the other, their actual capacities were contingent on the willingness of Chinese interlocutors to distribute their periodicals, films, and filmstrips.[19] Despite frictions at all levels, including the famous enmity between Chen Lifu and OSS-officer John K. Fairbank (later to found Area Studies at Harvard University), USIS materials were welcomed by Chinese film projection teams,

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[16] For an official history of the program, see Fairbank, *America's Cultural Experiment in China, 1942-1949* (op. cit.).
[17] See Sarah Ellen Graham, *Culture and Propaganda: The Progressive Origins of American Public Diplomacy*, *1936-1953* (New York: Routledge, 2015).
[18] Bao, 275.
[19] Johnson, 309.

who remained the final mediators between foreign propaganda and Chinese audiences. Continuing a long precedent stretching back to the lecture-screening of Eastman Classroom titles, educators—including the Zhenjiang center's Liu Zhichang, now in charge of the Ministry of Education's "National Projection Team One"—found in USIS the only consistent supply of new films, the volume of which soon overwhelmed the existent Chinese material.[20]

Based on a USIS catalogue from 1946 found in the Chongqing Archive (earlier wartime catalogs have so far been unavailable), the USIS functioned as a clearinghouse for a wide range of films from different producers, including OWI titles such as *Why we Fight* (Frank Capra, 1944), U.S. Signal Corps training films, New Deal documentaries such the Rural Electrification Administration's *Power and Land* (Joris Ivens, 1940), and a repertoire of educational sound films by the likes of Eastman, Erpi and Devry.[21] OWI's *Why We Fight: Battle of China* (Frank Capra, 1944) screened in November at West China Union University Campus in Chengdu, operated by the Jinling University Motion Picture department, to much accolade among critics and educators.[22] In an issue of Jinling University periodical *Film and Radio,* Wang Chaoqing expressed relief that the film, a "great documentary with historical significance and value," appeared to signal an end to Western film productions trafficking in humiliating depictions of China and the Chinese, in turn recognizing China in the true image of its embattled grandeur.[23] In awe at the

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[20] Li Wuzhou, "Liu Zhichang: Pingfan er weida de dianhua jiaoyu xianqu," *Xiandai jiaoyu jishu* 21.7 (2011), 5.
[21] U.S. Information Service American Consulate Letter, 15 April, 1946. Chongqing Municipal Archive no. 0086001002470000039.
[22] "Zhongguo weihe er zhan lu tian fangying," *Diangying yu boyin* 3.9-10 (1944), 32.
[23] Wang Chaoqing, "Zhongguo weihe er zhan de zhizuo ji qi jiazhi," *Dianying yu boyin* 3.9-10 (1944), 32-3.

film's fluid continuity and momentum, which he described as generating a state of "total suspense," Wang compared Capra's film favorably to Chinese editing techniques and processes: "In China, whether in the commercial or state film studios, the editor—always a technical aide at a developing facility—takes the director's shooting script and inventory management log and mindlessly edits based on approximate (*chabuduo* 差不多) shot lengths. When I laud *Why We Fight*'s editing technique, although I have not went to America to find out for myself, I trust that American editors are expert personnel or indeed the director or scriptwriter themselves."[24] Appreciating Capra's film from the developmental standpoint that I have elaborated in detail in Chapter 1, the commentator brought to fore the degree to which the pre-eminence of international educational film in Chongqing comprised simultaneously of dignified self-recognition and dissonance.

Meanwhile, in 1944, USIS, BMI, and the Guomindang Central Propaganda Ministry co-founded the United Nations Filmstrip Library (Lianheguo yingwen xuanchuan chu 联合国影闻宣传处), charged with distributing a different media format, namely filmstrips, which were serialized still slides on celluloid threaded into light, energy efficient and user-friendly "pocket projectors" (*xiuzhen fangying ji* 袖珍放映机) in common supply due to their integration into U.S. Army training programs. While motion pictures remained a mainstay in urban Chongqing and Chengdu, the logistical qualities of filmstrip rendered them more suitable for rural exhibition. Carrying titles such as *The Pacific War, Allies in Sicily, The Conquest of Nature—America's Great Dams, Lumber and War* and *Lion in Donkey's Skin,* the Library networked approximately four hundred exhibition stations in the rear front area, with around thirty-five in the

[24] Wang Chaoqing, 33.

Chengdu vicinity.[25] Varied educational institutions signed up individually to be part of the projection network, and were supplied filmstrips and pocket projectors provided that they were equipped with electrical generation, space for over 100, an 8x10 white cloth screen or wall, and experienced projectionists who were fluent in *guoyu* or the local dialect and were willing to "enthusiastically serve the masses."[26] Other conditions included that screenings were to be conducted at least three times a week, be free to the audience, and that the station staff write a detailed report for Central each month. Jinling University, which ran projection station number 12, solicited the help of student interns who were brought in for two-hour trainings before being sent out to the field. This practice had the aim of "not only expanding our station's projection work, also increasing the average student's interest in filmstrip."[27] Although relieved to have material to show, projection teams found the screening situations to consist of a familiar disjunctive experience, where foreign films met Chinese audiences in a din of disorientation that the lecturer had to still and exploit. A 1945 report by Wang Chaozhang, a chemistry undergraduate and projection team intern, offers a telling analysis of the metabolic space between heterogeneous audiences and his team's supply of images. Dividing his audience by levels of knowledge (*zhishi shuizhun* 指示水准), Wang observed that from the "extremely ignorant" he received questions such as: "is Germany at war with Japan?" and "Is there really such a thing as an aircraft carrier?" Meanwhile, from those with "a little

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[25] "Sanshi san nian shiyi yue san ri you yu lianheguo yingwen xuanchuanchu fachu xiuzhen ruanpian mulu," *Dianying yu boyin* 3.7-8 (1944), 39.
[26] Peng Jiaoxue, *Minguo shiqi jiaoyu dianying fazhan jianshi* (Beijing: Zhongguo chuanmei daxue chuban she, 2008), electronic text kindle.
[27] "Lianhe guo yingwen xuanchuan chu chengdu qu liutong jinkuang," *Dianying yu boyin* 3.7-8 (1944), 34

bit of knowledge," the questions were: "why do we only see foreigners fighting?"[28] Although attributing the first set of questions to ignorance, Wang reeled in horror at the thought that "the ordinary non-newspaper reading person only sees the allied forces at war, not even knowing how much blood our own country has spilled in search of victory."[29] Lamenting the representational imbalance of the filmstrip inventory, where even the material that did represent China was not made by Chinese cinematographers on the front lines, he called for an increase in domestic production. By 1945, Jinling had already begun producing filmstrips, primarily cartoons since photographic emulsions were in short supply, but their availability was so scarce that the intern Wang did not notice them. *Lion in Donkey's Skin* was one such production, based on an adapted Aesop fable, where a donkey wearing a tiger's skin enslaves other animals, until in slide 28, a fox disrobes, scoffing that "your Western mirror has been pierced!"[30] An obvious allegory for Imperial Japan's thin veil of power, the strip nonetheless calls to be read for all its connotations, namely, to the fact that the Western mirror was also the name of a peephole magic lantern device that had become popular street side entertainment since the late-nineteenth century. Japan's Westernization, here reduced to a surface phenomenon of wearing tiger's skin, is attributed a reflective and reflexive insubstantiality akin to the filmstrip image itself.

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[28] Wang Chaozhang, "Puji dianhua jiaoyu shixi gongzuo baogao," *Dianying yu boyin* 4.2 (1945), 27.
[29] Wang Chaozhang, 28.
[30] "Lianhe guo yingwen xuanchuan chu xiuzhen pian ju li," *Dianying yu boyin* 3.6 (1944), 10.

The emergence of the filmstrip as a format for mass education in the Chinese hinterlands was, itself, a significant event in the history of media technics.[31] Lightweight and extremely user friendly, the filmstrip pocket projector was developed by the U.S. Army Signal Corp as a visual aid for training inexperienced projectionist-lecturers, enabling the latter to review the key points of a film alongside its instruction manual without having to pre-screen the entire motion picture, a time consuming and likely anxiety-producing activity.[32] In China, however, the filmstrip found a different use as *primary* visual aid, since in most screening contexts motion pictures and motion picture infrastructure were not forthcoming. "There are vast areas of the world in which other visual techniques must be substituted for lack of exhibition outlets for film," observes Charles Sieppman, an OWI staffer, "the use of the film strip, for instance, did wonders to spread information and understanding in a country where lack of communications left knowledge stagnant"[33]

"Although naturally filmstrips are not as vivid as motion pictures," writes Wen Fuli in an issue of *Film and Radio*, "under current conditions they have their own expedience. Filmstrips and filmstrip projectors are small and delicate; they are cheap, portable, and easy to use; any person can learn how to project [a film] in a few minutes."[34] Moreover, Wen notes, a single filmstrip image could be projected for an indefinite time, allowing the lecturer to linger on the more important or the difficult to understand slides. "Filmstrips may not be as vivid as motion pictures, but from an

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[31] For a discussion of filmstrip in US Army activity, see L. Paul Saettler, *The Evolution of American Educational Technology* (Greenwich CT: Information Age Publishing, 2004), 182-190.
[32] Saettler, 182.
[33] Charles Sieppman, "Propaganda and Information in International affairs," *Yale Law Journal* 55.2 (Aug, 1946), 1273.
[34] Wen Fuli, "Di er zhan yu xiuzhen pian," *Dianying yu boyin* 3.6 (1944), 1.

educational perspective, there is in reality no loss."[35] Indeed, Chinese educational film practices where already such that the lecturer's dance with the moving picture was more central than diegetic immersion; the subtraction of movement appeared, in this instance, to reduce the training necessary to finely tune the lecturer's skill of matching exposition to cinematic rhythm, while simultaneously subjecting the projected image to a higher degree of control. In this context, Sun Mingjing's comment in Chapter 2 about the lecturer's "vivacity" in front of the filmstrip projector comes into full view. With the support of the filmstrip, whose electrifying vitality came both from its source current—importantly pocket projectors could run on lower voltage hand cranked generators and batteries—and its portability across capillary networks, the lecturer was entrusted with the task of creating and sustaining life, sympathy, and resonance. Another guide to filmstrip screening published in 1945 suggested, in addition to *baihua,* the lecturer also translate her material into *guci* 鼓词, a prosimetric oral lyric oft used by street musicians that, as the article alleged, fared better with the lower rungs of society than the official vernacular.[36] In resituating cinema within popular modes of oral expression, electrified education thus displaced *baihua*'s clumsy efforts to make speech travel as writing by turning speech itself into the proxy for global technological networks.

In this process of technological adaptation, the visual aids that comprised electrified education can by no means be understood in terms of unidirectional links between sender and receiver, but take on the quality of bidirectional information systems dispersed asymmetrically across a global network. Whereas the Army Signal Corps made

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[35] Wen Fuli, 1.
[36] "Xiuzhen yingpian xin zuofeng, shuoming liyong da guci," *Dianying yu boyin* 4.6 (1945), 149.

use of filmstrips as paracinematic interfaces for the training of projectionists, the same technology—and indeed the same filmstrips—became primary interfaces for audiences in rural China, where the movement of developmental desire appeared not diegetically but in the air itself, the charged vibratory space between lecturer, screen, audience, and the mobile apparatus. For this reason, I will continue to refer to still slide projection as a form of cinema, perhaps the "infinite cinema" of Li Lishui's description.[37] Like the Signal Corps lecturer, who used the filmstrip as an interface for decomposing, and hence, handling, the constantly escaping cinematic real (that is, movement as an effect of time), the Chinese educator took it as a way of grasping, perhaps futilely, at a less forgiving real, that of mass subjectivity as such, manifested here in the chasm separating the unruly, unschooled, and linguistically divergent denizens of Western China from the metabolic vitality promised by the technical networks of dromocratic modernity.

Such imbalances would not go away in the postwar era, during which USIS expanded its infrastructure into cities on the Eastern seaboard while Chinese educational production under the Guomindang stagnated due to rampant inflation and an intensifying civil war. In a 1947 article entitled "The Tragedy of Cinematographic Education" published in the *Nanjing New Citizen Daily*, a contributor under the pseudonym Huang Bawo reports his disappointment at reading a report that a U.S. Department of Agriculture film on soy had been screened in Nanjing (putatively under the auspices of

[37] Perhaps only such a concept of cinema—and certainly no theory that emphasizes the intimacy of the spectator to the moving screen image, absorbed while seated in a dark womblike room—enables one to understand the allure of a scene, oft described and photographed, in which an audience of ten thousand gathers in an open air plot to watch the projection of a 35mm slide or a 16mm motion picture on a 11 x 15 foot screen made of non-reflective rattan, cotton, or yellow silk (such were the dimensions and materials *Film and Radio* recommended for a mobile projection screen). See Houle and Changlin, "Lutian dianying fangying mu: cimu wei jinling daxue lixue yuan jiaoyu dianying bu suo sheji," *Dianying yu boyin* 2.2 (1943), 15-16.

USIS). "During the war we watched old pre-war films like *Playthings, Little Angel*, and films from USIS and British Information Service…films that glorified the allied war effort…[but that] could be justified at least," he writes. Now "we are educating our farmers with other people's films, with the aid of Chinese film education workers!"[38] One title in the soy film, which depicted America's scientific farming methods and the "happy lives of its farmers," stood out to the author. It read: "Soybeans were once produced in China, and from there it was taken West. Now there have been developed many uses of soy, which have been transported to China for mutual benefit (*hu hui* 互惠)."[39] The world historical irony that Huang seeks to imbue in the word "mutual benefit" is possibly lost in translation, as is the dissonance of the phrase "we are educating our farmers with other people's films." The tragedy of cinematographic education lay precisely in the unsayability of the dysphoria at the heart of technical transfer as a developmental interface. Inside the globalization of logistical networks for "mutual benefit" (a term that resonates ominously with "co-prosperity," *gongrong* 共荣), a secret and amorphous war was being fought.

In a 1943 *Public Opinion Quarterly* article, David Nelson Rowe, special assistant to the ambassador in Chongqing and later professor of International Relations at Yale, gave voice to how this war between putative allies looked like from the other "side." Expressing disappointment at what he saw to be an uncoordinated dissemination of news through organs controlled by a foreign government, Rowe lamented that the U.S. was being reduced to the "position of an advertising manager who has not yet decided what

[38] Huang Bawo, "Dianying jiaoyu de bei ai," *Nanjing xinmin bao* 23 Feb, 1947, reprinted in *Dianying yu boyin* 10.5 (1947), 255.
[39] Huang, 255.

he is advertising."[40] Concerned that materials designed to promote the U.S. image globally had failed to communicate their message due to the dispersive character of their distribution mechanisms, Rowe recommended that "all existing media communication must be invaded by American agencies," a strategy he called "total publicity."[41] Total publicity, from the perspective of the allied forces, meant permanent and total war, as only the "invasion" and occupation of all moments of a given communication infrastructure could ensure the purity and intelligibility of the transmitted message. "Sight and hearing are now co-extensive with the globe," writes former-OWI staffer Charles Sieppman in 1946, who as chair of Educational Communication at New York University drafted the controversial "Blue Book" for the Federal Communication Commission recommending increased governmental control.[42] Insofar as "the good manners of communication have been corrupted," Sieppman argued for the U.S. government to retain the massive broadcasting, film exhibition, and press assets that it had erected worldwide over the course of the war. There was, he suggested, a "need for countries like our own, without widespread colonial possessions, to secure relay stations on foreign territory in order to facilitate multiple address newscasting and perhaps voice broadcasting as well."[43] Substituting direct colonial administration with the control of "the message," both Rowe and Sieppman gesture at the advent of a form of remote-control that massaged the link between wartime propaganda and the forms taken by media war and communicative governmentality in cold war era. While a full discussion of the latter is

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[40] David Nelson Rowe, "OWI's Far Eastern Outposts: Some Proposals," *Public Opinion Quarterly* 7.1 (1943), 90-99.
[41] Rowe, 94.
[42] Charles Sieppman, "Propaganda and Information in International affairs," *Yale Law Journal* 55.2 (Aug, 1946), pp. 1258-1280.
[43] Sieppman, 1264.

decidedly outside the scope of this dissertation, it is worth following the spiral a turn further.

"It is dangerous to assume any simple and direct relationship between a message and its effect without knowing all the other elements in the process," wrote Wilbur Schramm in a 1954 essay entitled "How Communication Works."[44] Schramm, widely credited as the founder of the discipline of Communication Studies in the United States, published the essay as the introductory chapter to *The Process and Effects of Mass Communication*, designed as a handbook for employees of the newly founded USIA. It began with a sweeping claim that various genres of address, from romantic overture to a newspaper's editorial strategy were "essentially the same" insofar as they were communicative acts.[45] Abstracting Claude Shannon's sender-receiver model of the communication link from its grounding in telecommunications engineering, Schramm developed a universal diagram for evaluating and optimizing all communication situations. But while Shannon was only concerned with calculating the bandwidth of the link itself, thus bracketing both the intentions of the sender and the effects of the message, Schramm, writing for USIA, was concerned precisely with effect. The result was a monstrosity of a model that had neither the mathematical elegance nor philosophical consequence of Shannon's model, but when combined with U.S. military power possessed a decided purchase on the Real. "In engineering terms," he wrote "there may be filtering or distortion at any stage."[46] "In human terms," this meant that whether a message reached its receiver, was properly decoded, then properly handled was subject to

[44] Wilbur Schramm, "How Communication Works," *Processes and Effects of Mass Communication* (Urbana: University of Illinois Press, 1954), 18.
[45] Wilbur Schramm, "How Communication Works," 3.
[46] Schramm, 5.

a large number of contingencies.[47] To prove this point, Schramm cited the instance of a North Korean prisoner of war, who when first reading a U.S. propaganda leaflet calling for his surrender was merely infuriated, later came to properly understand the message after his entire platoon was destroyed in a Napalm strike.[48] Schramm listed three contingencies outside the media link itself relevant to media effect: "situation," "individual personality," and "group relationships and standards."[49] For the Korean prisoner of war, "when the situation deteriorated, the group influence was removed, and the personality aggression was burned up, then finally the message had an effect."[50] With effect as the ultimate goal of efficient communication, the signified and napalm become in essence the same thing.[51]

Fascinated by rumors of communist propaganda and re-education programs during the Korean war, Schramm and his colleague John Riley visited Seoul to collect eyewitness accounts, which they published in the influential paperback *Reds Take a City: The Communist Occupation of Seoul, with Eyewitness Accounts* (1952). Theorizing such experiences in 1954, Schramm laid out the steps a message must take to reach its destination: (1) the message is designed to gain attention, (2) the message refers to common experience, (3) the message arouses personality needs and suggests some way the needs are met, and (4) the message suggests a way to meet those needs which is

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[47] Schramm, 5.
[48] Schramm, 18.
[49] Schramm, 18.
[50] Schramm, 18.
[51] This is, after all, Rey Chow's argument, pursued by different means, in *The Age of World Target* (Durham: Duke University Press, 2006). She writes, ""the epistemic ground that poststructuralist theory methodically takes apart—reveals to be unstable—is reestablished with brute military force…and with flourishing civil apparatuses" (p. 15).

appropriate to the group situation in which the destination finds himself.[52] The communists, when they took over a city, first seized the mass communications system, after which they supplemented it with a group structure "where a convert can get reinforcement," thus controlling three out of the four steps in the communication process.[53] Liberal democracies, Schramm noted as a matter of fact, could not hope to do the same. Yet, as his example implies—an example that resonates ominously with the "example" (*shizhong* 示众) Lu Xun witnessed in the Sendai classroom—when one truly wishes to be understood, one must go to war.

The case of U.S. communication theory demonstrates that the control of communications infrastructure means, in the last instance, the flattening the surrounding world, all but confirming what had been Virilio's insight into the ultimate fatality of the "logistics of perception."[54] As Schramm's model became naturalized as *a priori* common sense for communications and area scholars analyzing Communist bloc propaganda systems, as well as in popular culture, the idea of "communist propaganda" and along with it "brainwashing" came to solicit a peculiar fascination and repulsion. As a space in which the imagination could think human beings and societies as continuations of the media link, the specter of communist propaganda became an epistemological staging ground for liberal democracy's own desire for total war.

Yet the story I have elaborated throughout this dissertation should give pause to such dromocratic fantasies, projected on others such that we may avoid thinking our own condition. In their unevenness, dispersal, and enunciative insecurity, Guomindang

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[52] Schramm, 25.
[53] Schramm, 25.
[54] Paul Virilio, *War and Cinema: The Logistics of Perception,* trans. Patrick Camillier (London: Verso, 1989).

China's educational film programs present us with neither a pioneering step in the modernizing process to be monumentalized nor an ominous precedent for the "successful" Communist propaganda systems to come. Rather, they demonstrate the emergence of an alternative common sense concerning communication and governmentality, one that seeks to transform dispersal, dissynchrony, and heterogeneity—in short "noise"—into vitality and life. Ambivalent to the end, and containing its own dangers, traps, and mise-en-abymes, such an alternative common sense offers less a redemptive option to the present as an invitation to think differently. Caught between multiple unsutured media surfaces, Chinese educational film practices comprised dispersed developmental interfaces, seeking to hold together heterogeneous circuits of social reproduction—in short "life"—while simultaneously displacing them with logistics and speed. War does not know anything of life, yet in attempting to appropriate its speed, the Chinese educators, politicians, and filmmakers could not avoid having touched it in the crossed circuits of their technical and metaphorical fabulations.

Filmography

Prod. = production
Dir. = director
Scr = screenwriter
Cr. = creator
Co. = commissioning body
Ca. = cooperating agencies

A Glimpse of Xikang (西康一瞥 XIKANG YI PIE)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Alaska (亚拉斯加 YA LA SI JIA)
Prod. Eastman Kodak, 1930

All Face National Crisis (共赴国难 GONG FU GUONAN)
Prod. Lianhua, 1932
Dir./Scr. Cai Chusheng, Sun Yu, Shi Dongshan, Wang Cilong

Beet and Cane Sugar (甜菜与甘蔗糖 TIANCAI YU GANZHE TANG)
Prod. Eastman Kodak, 1930

Beiping, the Old Capital (故都北平 GU DU BEIPING)
Prod. Jinling, 1937
Cr. Sun Mingjing
Co. Beiping National Library, The Forbidden Palace Museum

Buddhist Pilgrimmage to Yunkang (云康石佛 YUNKANG SHI FOU)
Prod. Jinling, 1937

Burning of Red Lotus Temple, The (火烧红莲寺 HUOSHAO HONGLIAN SI)
Prod. Mingxing, 14 episodes, 1928-1931
Dir. Shang Shichuan
Scr. Bao Tianxiao

Century in Long Take, The (世纪长镜头 SHIJI CHANG JINGTOU, 12 episodes)
Prod. China Central Television 1, 2002
Dir. Zhang Tongdao

Coal Mining (开采煤矿 KAICAI MEIKUAING)
Prod. Jinling, 1937

Cr. Sun Mingjing
Co. National Educational Cinematographic Society
Ca. Chung Hsing Coal Company

Confused Lamb, The (迷途的羔羊 MITU DE GAOYANG)
Prod. Lianhua, 1936
Dir./Scr. Cai Chusheng

Care of the Teeth (齿的保持 CHI DE BAOCHI)
Prod. Eastman Kodak, 1931
Cr. George W. Hoke

Chemical Defense (防毒 FANG DU)
Prod. Jinling, 1936
Cr. Sun Mingjing
Ca. Capital Air Defense Agency

Cotton Goods (棉货 MIAN HUO)
Prod. Eastman Kodak, 1928

Cotton Growing (棉花的生长 MIAN HUA DE SHENG ZHANG)
Prod. Eastman Kodak, 1928

East Indian Island (东印度岛 DONG YINDU DAO)
Prod. Eastman Kodak, 1930

Exercise in China (中国体育 ZHONGGUO TIYU)
Prod. Mingxing, 1937
Cr. Chu Minyi
Co. National Educational Cinematographic Society

Famous Sites of Suzhou (苏州名胜 SUZHOU MINGSHENG)
Prod. Jinling
Cr. Sun Mingjing

Fireman, The (救火队 JIU HUO DUI)
Prod. Mutual Film Corporation, 1916
Dir. Charlie Chaplin

From Chengdu to Xining (从成都到西宁 CONG CHENGDU DAO XINING)
Prod. Jinling, 1946

From Chengdu to Lanzhou (从成都到兰州 CONG CHENGDU DAO LANZHOU)
Prod. Jinling

Fujian Province (福建省 FUJIAN SHENG)
Prod. Jinling, 1936
Co. Fujian Bureau of Education

Hawaiian Islands (夏威夷群岛 XIA WEI YI QUNDAO)
Prod. Eastman Kodak, 1927
Cr. George W. Hoke

Huangshan (黄山 HUANGSHAN)
Prod. Jinling, 1936

Humanity (人道 *Rendao*)
Prod. Lianhua, 1932
Dir. Bu Wancang
Scr. Jing Qingyu

Golden Years (黄金时代 HUANGJIN SHIDAI)
Prod. Lianhua, 1934
Dir. Bu Wancang
Scr. Tian Han

Guangdong Province (广东省 GUANGDONG SHENG)
Prod. Jinling, 1935
Co. Ministry of Education

Guangxi Province (广西省 GUANGXI SHENG)
Prod. Jinling, 1936

How Teeth Grow (齿牙的生长 CHI YA DE SHENZHANG)
Prod. Eastman Kodak, 1931
Cr. George W. Hoke

Huaibei Sea Salt (淮北海盐 HUAIBEI HAI YAN)
Prod. Jinling, 1937
Cr. Sun Mingjing
Co. Huaibei Salt Committee
Ca. Lianghuai Salt Control Bureau

Iron and Gold Mining (金矿铁矿 JIN KUANG TIE KUANG)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Iron Bird (铁鸟 TIE NIAO)

Prod. Lianhua, 1934
Dir./Scr. Yuan Congmei

Lanzhou Shadowplay (兰州影戏 LANZHOU YINGXI)
Prod. Jinling, 1937
Cr. Sun Mingjing

Lianyungang (连云港 LIAN YUN GANG)
Prod. Jinling, 1937
Co. National Educational Cinematographic Society

Life of the Llamas (喇嘛生活 LAMA SHENGHUO)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Life of the People in Sikong/Xikang (西康生活 XIKANG SHENGHUO)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Life of Wu Xun, The (武训传 WU XUN ZHUAN)
Prod. Kunlun, 1950
Dir. Sun Yu

Magnetic Effects of Electricity (电的磁性 DIAN DE CIXING)
Prod. Eastman Kodak, 1930
Cr. George W. Hoke

Maternal Radiance (母性之光 MUXING ZHI GUANG)
Prod. Lianhua, 1933
Dir. Bu Wancang
Scr. Tian Han

Morning in the Metropolis (都会的早晨 DUHUI DE ZAOCHEN)
Prod. Lianhua, 1933
Dir./Scr. Cai Chusheng

Mt. Emei (峨眉山 EMEI SHAN)
Prod. Jinling, 1942
Co. National Educational Cinematographic Society

National Customs (国风 GUO FENG)

Prod. Lianhua, 1935
Dir./Scr. Luo Mingyou and Zhu Shilin

National Pride (国光 GUO GUANG)
Prod. Jiangsu Zhenjiang Provincial Mass Education Center, 1936
Cr. Liu Zhichang et. al.

Native Woman Washing Negro Baby in Nassau B.I.
Prod. Edison, 1903

Night in the City (城市之夜 CHENGSHI ZHI YE)
Prod. Lianhua
Dir. Fei Mu
Scr. He Mengye and Feng Zici

On the Sichuan-Xikang Road (川康道上 CHUAN KANG DAO SHANG)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Our Capital (首都 SHOUDU, a.k.a.首都风光 SHOUDU FENGGUANG)
Prod. Jinling, 1936
Cr. Sun Mingjing
Co. National Educational Cinematographic Society
Ca. Capitol Aviation Agency

Our National Survival (民族生存 MINZU SHENGCUN)
Prod. Mingxing 1933
Dir./Scr. Tian Han

Peasants and Shepards of Manchuria (满洲的农牧 MANZHOU DE NONG MU)
Prod. Unknown

People of Western China
Prod. Erpi, 1940
Ca. Oliver Caldwell

Playthings (小玩意 XIAO WANYI)
Prod. Lianhua, 1933
Dir./Scr. Sun Yu

Porcelain (陶瓷 TAO CI)
Prod. Jinling, 1935
Co. National Educational Cinematographic Soceity

Ca. National Center for Industrial Research

Power and Land
Prod. U.S. Rural Electrification Administration, 1940
Dir. Joris Ivens

Provincial Capital Kangding (省会康定 SHENGHUI KANGDING)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Qinghai Proinvicial Capital Xining (青海省会西宁 QINGHAI SHENGHUI XINING)
Prod. Jinling, 1946

Return our Rivers and Mountains (黄我河山 HUAN WO HE SHAN)
Prod. Jinling

Salt Tide (盐潮 YAN CHAO)
Prod. Mingxing, 1933
Dir. Xu Xinfu
Scr. Ah Ying

Scenes from Qingdao (青岛风光 QINGDAO FENGGUANG)
Prod. Jinling, 1936

Scenes on the Plains (草原风光 CAOYUAN FENGGUANG)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Scenery at Westlake (西湖风景 XIHU FENGJING)
Prod. Jinling, 1935
Co. National Educational Cinematographic Society

Sea Oath (海誓 HAI SHI)
Prod. Shanghai yingxi gongsi, 1921
Dir. Dan Duyu

Shanghai (上海 SHANGHAI)
Prod. Jinling
Co. National Educational Cinematographic Society

Shanghai Express (上海特快车 SHANGHAI TE KUAI CHE)

Prod. Paramount, 1932
Dir. Josef Sternberg

Silk (蚕丝 CAN SI)
Prod. Jinling, 1935
Cr. Pan Denghou
Co. National Educational Cinematographic Society
Ca. Huaxin Filature and Jinling University

Southwest, The (西南 XINAN)
Prod. Jinling

Spring Silkworms (春蚕 CHUN CAN)
Prod. Minxing, 1933
Dir. Cheng Bugao
Scr. Xia Yan

Springtime for Farmers (农人之春 NONGREN ZHI CHUN)
Prod. Central Film Studio, 1935
Co. National Educational Cinematographic Society
Ca. Jinling University

Suiyuan Province (绥远省 SUIYUAN SHENG)
Prod. Jinling, 1937
Cr. Sun Mingjing
Co. National Educational Cinematographic Society
Ca. 1937 Northeast Survey, Suiyuan Provincial Government, Thirteenth Army, Wuyuan Beihe Migrant Committee

Sunrise: A Song of Two Humans (日起 RI QI)
Prod. Fox Film Corporation, 1927
Dir. F.W. Murnau

Sweetgrass Beauty (心草美人 XINCAO MEIREN)
Prod. Mingxing, 1933
Dir. Chen Kengran

Ten Thousand Li Great Wall, The (万里长城 WAN LI CHANG CHENG)
Prod. Jinling, 1937
Cr. Sun Mingjing

Torrents (狂流 KUANGLIU)
Prod. Mingxing, 1932
Dir. Cheng Bugao
Scr. Xia Yan

Triumph of the Will
Prod. Reichsparteitag-Film, 1935
Dir. Leni Riefenstahl

Water Conservancy in Guan County (灌县水利 GUANXIAN SHUI LI)
Prod. Jinling, 1942

Water Hygiene (饮水卫生 YINSHUI WEISHENG)
Prod. Mingxing, 1935
Scr. Chen Guofu
Co. Jiangsu Bureau of Education

Welcome Danger (不怕死 BU PA SI)
Prod. Harold Lloyd Film Corporation, 1929
Dir. Clyde Bruckman

Why We Fight: The Battle of China (中国为何而战 ZHONGGUO WEIHE ER ZHANG)
Prod. U.S. Office of War Information, 1944
Dir. Frank Capra

Xuzhou Scenes (徐州风光 XUZHOU FENGGUANG)
Prod. Jinling, 1937
Cr. Sun Mingjing

Ya'an Border Tea (雅安边茶 YA'AN BIANCHA)
Prod. Jinling, 1939
Cr. Sun Mingjing
Co. Ministry of Education Boxer Indemnity Fund Scientific Survey
Ca. Xikang Provincial Government, Sichuan Bureau of Education

Yan Ruisheng (阎瑞生 YAN RUISHENG)
Prod. Zhongguo yingxi, 1921
Dir. Ren Pengnian
Scr. Chen Chunsheng
Ca. China Film Research Society

Yantai Embroidery (烟台花边 YANTAI HUABIAN)
Prod. Jinling, 1936
Co. Ministry of Industry
Ca. Yantai Yizhong Company

Yantai Handicrafts (烟台及其手工业 YANTAI JI QI SHOUGONG YE)
Prod. Jinling, 1936
Ca. Yantai Dezhong Company

Zigong Salt Wells (自贡井盐 ZIGONG JING YAN)
Prod. Jinling, 1939/42
Cr. Sun Mingjing
Co./Ca. National Resource Commission

Bibliography

Acland, Charles. "Curtains, Carts, and the Mobile Screen." *Screen* 50.1 (2009): 148-166.

Althusser, Louis. *For Marx.* Translated by Ben Brewster. London: New Left Books, 1977

_____. "Ideology and Ideological State Apparatuses (Notes Toward an Investigation)." In *Lenin and Philosophy and Other Essays.* Translated by Ben Brewster, 85-126. New York: Monthly Review Press, 2001.

Altman, Rick. "The Early History of Travel Films." In *Virtual Voyages,* edited by Jeffery Ruoff, 61-78. Durham: Duke University Press, 2006.

Anderson, Benedict. *Imagined Communities: Reflections on the Origins and Spread of Nationalism Revised.* New York: Verso, 2007.

Bailey, Paul. *Reform the People: Changing Attitudes toward Popular Education in Early Twentieth Century China.* Edinburgh: Edinburgh University Press, 1990.

Bao, Weihong. *Fiery Cinema*: *The Emergence of an Affective Medium in China.* Minneapolis: University of Minnesota Press, 2015.

Baudry, Jean-Louis. "The Apparatus: Metapsychological Approaches to the Impression of Reality in Cinema." N*arrative, Apparatus, Ideology,* edited by Philip Rosen, 690-707. New York: Columbia University Press, 1986.

Beijing kexue jiaoyu dianying zhipian chang 'jianlun' bianxie zu. *Kejiao dianying jianlun*. Beijing: Kexue jiaoyu ji chubanshe, 1986.

Bolter, Jay David and Richard Grusin. *Remediation: Understanding New Media.* Cambridge MA: MIT Press, 2002.

Braester, Yomi. "The Political Campaign as Genre: Ideology and Iconography in the Seventeen Years Period." *Modern Language Quarterly* 69.1 (2008): 119-140.

Bray, Francesca. *Technology and Gender: Fabrics of Power in Late Imperial China.* Berkeley: University of California Press, 1997.

Bu Wancang. "Shezhi huangjin shidai de jingguo." *Yingmi zhoubao* 1.1 (1934): 6.

Bürger, Peter. *Theory of the Avant Garde.* Translated by Michael Snow. Manchester: Manchester University Press, 1984.

Deleuze, Gilles. "Postscript on Control Societies." In *Negotiations, 1972-1990*. Translated by Martin Joughin, 177-82. New York: Columbia University Press, 1995.

Doane, Mary Ann. *The Emergence of Cinematic Time: Modernity, Contingency, The Archive.* Cambridge MA: Harvard University Press, 2002.

Bachner, Andrea. *Beyond Sinology: Chinese Writing and the Scripts of Culture.* New York: Columbia University Press, 2014.

Baudry, Jean-Louis. "The Apparatus: Metapsychological Approaches to the Impression of Reality in Cinema." In *Narrative, Apparatus, Ideology,* edited by Philip Rosen, 299-318. New York: Columbia University Press, 1986.

Benjamin, Walter. *The Arcades Project.* Translated by Howard Eiland and Kevin McLaughlin Cambridge MA: Harvard University Press, 2002.

_____. *The Origin of German Tragic Drama.* Translated by George Steiner. London and New York: Verso, 2003.

_____. *Walter Benjamin: Selected Writings vol 2 part 1, 1927-1930,* edited by Michael Jennings et. al. Cambridge MA: Harvard University Press, 1999.

_____. *Walter Benjamin: Selected Writings Vol. 2 Part 2, 1931-1934,* edited by Michael Jennings et. al. Cambridge MA: Harvard University Press, 1999.

Bloch et. al. *Aesthetics and Politics: Key Texts of the Classic Debate within German Marxism,* edited by Ronald Taylor. New York: Verso, 1980.

Bloom, Peter. *French Colonial Documentary: Mythologies of Humanitarianism.* Minneapolis:

University of Minnesota Press, 2008.
Brett Bowden. "The Colonial Origins of International Law. European Expansion an the Classical Standard of Civilization." *Journal of the History of International Law* 7.1 (2005): 1-24.
Brinkema, Eugenie. *The Forms of the Affects.* Durham: Duke University Press, 2012.
Bruno, Giuliana. *Atlas of Emotion: Journeys in Art, Architecture and Film.* New York: Verso, 2002.
Cau Chusheng. "Huike shi zhong." In *Bainian zhongguo dianying lilun wenxuan,* edited by Ding Yapin, 260-70. Beijing: wenhua yishu chubanshe, 2000.
Cai Shusheng (Xia Yan) et. al, "Chun can zuotan hui." In *Sanshi niandai dianying pinlun wenxuan,* edited by Chen Bo, 250-7. Beijing: Zhongguo dianying chubanshe, 1993.
Cai Yuanpei. *Cai Yuanpei sanwen xuanji,* edited by Hou Xiaoju. Shanghai: Shanghai kexue jishu wenxian chubanshe, 2013.
Chan Nadine. "'Remember the Empire Filled with your Cousins': Poetic Exposition in the Films of the Empire Marketing Board." *Studies in Documentary Film* 7.2 (2013): 105-118.
Chang Jui-te. "Technology Transfer in Modern China: The Case of Railway Enterprises in Central China and Manchuria." In *Manchurian Railways and the Opening of China: an International History,* edited by Bruce Elleman and Stephen Kotkin, 105-122. Armok NY and London: ME Sharpe, 2010.
Chen Guofu. *Chen guofu xiansheng zhengzhi sixiang xuanji.* Taibei: Chen Guofu xiansheng jiang xue jin guanli weiyuan hui, 1975.
_____. "Dianhua jiaoyu de zhanwang." *Minzhong jiaoyu tongxun* 6.7 (1937): 1.
_____. "Dianhua jiaoyu de zhanwang." *Minzhong jiaoyu tongxun.* 6.7 (1937): 1-5.
_____. "Yinshui weisheng jiaoyu dianying juben." *Minzhong jiaoyu tongxun* 3.10 (1934): 157-61.
Chen Guofu et. al. "Yinshui weisheng jiaoxue fangan." *Minzhong jiaoyu tongxun* 5.9 (1935): 5-65.
_____. "Yinshui weisheng." *Jiao yu xue* 1.8 (1936): 125-137.
Chen Lifu. *Zhongguo dianying shiye de xin luxian.* Nanjing: zhongguo jiaoyu dianying xiehui, 1934.
_____. "Xu," *Zhongguo dianying nianjian,* edited byZhongguo jiaoyu dianying xiehui, 94-5. Nanjing: Zhongguo jiaoyu dianying xiehui, 1934.
Chen Yousong. *Yousheng jiaoyu dianying.* Beijing : Beijing zhong xian tuo fang ke ji fa zhan you xian gong si, 2007.
Chen Zhi. "Woguo shoubu zai guoji huo zhengshi jiang de yingpian shiwei 'nongren zhi chun,'." *Dianying yishu* 3 (2004): 109.
Chen Zhongli. "Yinmu yu heiban." *Minzhong jiaoyu tongxun* 3.10 (1934): 1-5.
Cheng Bugao. "Sheying taiben Chuncan." *Mingxing* 1.5 (1933): 25-32.
_____, *Yingtan yijiu*. Beijing: Zhongguo dianying, 1983.
"China and the I.I.E.C.." *International Review of Educational Cinematography* 4.1 (1932): 39-50.
Chow, Rey. *The Age of World Target: Self-referentiality in War, Theory, and Comparative Work.* Durham: Duke University Press, 2006.
_____. *Entanglements, or Transmedial Thinking about Capture.* Durham: Duke University Press, 2012.
_____. *Primitive Passions: Visuality, Sexuality, Ethnography, and Contemporary Chinese Cinema.* New York: Columbia University Press, 1995.
Chu Minyi. *Liyong dianying zucheng san min zhuyi zhi xianshi ji buzhu ge zhong shiye jinxing.* Nanjing: Zhongguo jiaoyu dianying xiehui, 1933.
"Chuang ban lianhua yingye zhipian yinshua youxian gongsi qi yuan." *Zhongguo wusheng dianying,* edited byZhongguo dianying ziliao guan, 67. Beijing: Zhongguo dianying chubanshe, 1996.

Clark, Paul. *Chinese Cinema: Culture and Politics since 1949*. Cambridge and New York: Cambridge University Press, 1987.
Clarke, Bruce. *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics* Ann Arbor: University of Michigan Press, 2001.
Confucius, *Analects: With Selections from Traditional Commentaries*. Translated by Edward Slingerland. Indianapolis: Hackett Publishing, 2003.
Copjec, Joan. "The Orthopsychic Subject: Film Theory and the Reception of Lacan." *October* 49 (1989): 53-71.
Crary, Jonathan. *24/7.* New York: Verso, 2013.
_____. *Suspensions of Perception: Attention, Spectacle, Modern Culture.* Cambridge MA: MIT Press, 2001.
Culp, Robert. "Teaching Baihua: Textbook Publishing and the Production of Vernacular Language and a New Literacy Canon in Early Twentieth Century China." *Twentieth-Century China* 34.1 (2009): 4-41.
Curtis, Scott. *The Shape of Spectatorship: Art, Science, and Early Cinema in Germany.* New York: Columbia University Press, 2015.
Dale, Edgar. *Audio-visual Methods in Teaching.* New York: Dryden Press, 1946.
_____. *Shiting jiaoxue fa zhi lilun.* Translated by Du Weitao. Beijing zhong xian tuo fang ke ji fazhan youxian gongsi, 2012.
Davies, Gloria. *Worrying about China: The Language of Chinese Critical Inquiry.* Cambridge MA: Harvard University Press, 2007.
Deleuze, Gilles. *Cinema 1: The Movement Image.* Translated by Hugh Tomlinson and Barbara Habberjam. Minneapolis: University of Minnesota Press, 1986.
Devereux, Francois. *The Educational Talking Picture.* Chicago: The University of Chicago Press, 1933.
Dewey, John. *Democracy and Education*. New York: McMillan, 1916.
Dianying jiancha weiyuan hui. "Dianying jiancha wei yuan hui cheng (1932 nian 6 yue 10 ri)" in *Zhongguo dianying ni bu zhi dao de na xie shi'er,* edited by Sun Jiansan, 28-9. Beijing: Shijie tushu chuban gongsi, 2010.
"Dianhua jiaoyu chuchuang yu qi chengguo," *Dianhua jiaoyu yanjiu* 5 (2011): n.p.
"Dianhua jiaoyu jiaoxue xunjiong shijiao che." *Minzhong jiaoyu tongxun,* 6.7 (1936): n.p.
"Dianying shiye zhi chu lu." In *Zhongguo dianying ni bu zhi dao de na xie shi'er,* edited by Sun Jiansan, 390-405. Beijing: Shijie tushu, 2010.
"Dianying xiaoshuo: Huangjin shidai." *Xiaoshuo* 7 (1934): 28-9, 35, 41.
Drüick, Zoe. "The International Educational Cinematograph Institute, Reactionary Modernism, and the Formation of Film Studies." *Canadian Journal of Film Studies* 16.1 (2007): 80-97.
Du Guangsheng et. al.. "Zhenjiang minzhong jiaoyu guan xunhui dianhua jiaoyu de shijian ji zuoyong yanjiu." *Dianhua jiaoyu yanjiu*. 227(2012): 114-120.
Eastman Kodak Teaching Division. *Eastman Classroom Films A Descriptive List Include Latest Releases*. Rochester: Eastman Kodak, 1930.
Eastman, Lloyd. *The Abortive Revolution: China Under Nationalist Rule.* Cambridge: Harvard University Press, 1974.
Elsaesser, Thomas. "Early Film History and Multi-Media : An Archaeology of Possible Futures?" *New Media, Old Media: A History and Theory Reader,* edited by Wendy Hui Kyong Chun and Thomas Keenan, 13-26. New York: Routledge, 2006.
Fairbank, Wilma. *America's Cultural Experiment in China, 1942-1949*. Washington: Bureau of Educational and Cultural Affairs, U.S. Dept. of State, 1976.
Fan, Victor. "Approaching Reality: Epistemic Distance, Political Crises and Temporal Imaginations in the Sino-French Dialogue on Cinema Ontology." *world picture* 7 (2012): http://www.worldpicturejournal.com/WP_7/Fan.html.

Fang Yong. *Jiang Jieshi zhanshi jingji yanjiu (1931-1945).* Hangzhou: Zhejiang daxue chubanshe, 2013.
Fei Xiaotong. *Xiangtu zhongguo.* Shanghai: Shanghai shudian, 1991.
Ferlanti, Federica. "The New Life Movement at War: Wartime Mobilization and State Control in Chongqing and Chengdu, 1938-1942." *European Journal of East Asian Studies* 11.2 (2012): 187-212.
Foucault, Michel. *The Archaeology of Knowledge and the Discourse on Language*. Translated by A.M. Sheridan-Smith. New York: Pantheon, 1972.
_____. *Discipline and Punish: The Birth of the Prison.* Translated by Alan Sheridan. New York: Vintage, 1995.
Friedberg, Anne. *Window Shopping: Cinema and the Postmodern.* Berkeley: University of California Press, 1996.
Galloway, Alexander. *The Interface Effect.* Cambridge UK: Polity Press, 2012.
Garner, Kenneth. "Seeing is Knowing: The Educational Cinema Movement in France, 1910-1945." Doctoral Dissertation, University of Michigan, 2012.
Gaudreault, André, and Philippe Marion. "The Cinema as a Model for the Genealogy of Media." *Convergence* 8.4 (2002): 12-8.
"Ge sheng shi shishi dianying jiaoyu banfa" (no author). *Faling zhoukan* 329, 1936): 5-6.
Gerth, Karl. *China Made: Consumer Culture and the Creation of the Nation.* Cambridge MA: President and Fellows of Harvard College, 2003.
Goldsmith, Ben. "'The Comfort Lies in All the Things You Do': The Australian Drive-in—Cinema of Distraction." *Journal of Popular Culture* 33.1 (1999): 153-64.
Graham, Sarah Ellen. *Culture and Propaganda: The Progressive Origins of American Public Diplomacy*, *1936-1953.* New York: Routledge, 2015.
Grierson, John. "First Principles of Documentary (1932-1934)." In *Nonfiction Film Theory and Criticism*, edited by Richard Barsam, 19-30. New York: Dutton, 1977.
Grieveson, Lee. *Policing Cinema: Movies and Censorship in Early-Twentieth Century America.* Berkely and Los Angeles: University of California Press, 2004.
Griffith, Allison. "To the World the World we Show: Early Travelogues as Filmed Ethnography." *Film History* 11.3 (1999): 282-307.
Gross, Miriam. "Marketing Tourism in Republican China, 1927-1937." *Twentieth Century China* 36.2 (2011): 119-147.
Groys, Boris. *The Total Art of Stalinism: Avant-Garde, Aesthetic Dictatorship and Beyond.* London: Verso, 2008.
Gu Kenfu. "*Yingxi zazhi* fa kan ci." *Bainian zhongguo dianying lilun wenxuan,* edited byDing Yapin, 10-12. Beijing: Wenhua yishu chubanshe, 2000.
Gu Qian. *Guomin zhengfu dianying guanli xitong* 1927-1937. Beijing: Zhongguo guangbo dianshi chubanshe, 2010.
Gunn, Edward. *Rewriting Chinese: Style and Innovation in Twentieth-Century Chinese Prose*. Stanford: Stanford University Press, 1991.
Gunning, Tom. *D.W. Griffith and the Origins of American Narrative Film.* Urbana IL: University of Illinois Press, 1991.
_____. "Film History and Film Analysis: The Individual Film in the Course of Time." *Wide Angle* 12.3 (1989): 4-19.
_____. "The World Within Reach." *Virtual Voyages,* edited by Jeffery Ruoff, 25-41. Durham: Duke University Press, 2006.
Guo Haiyan. "Luo Mingyou yu guopian fuxing yundong zai renshi." *Dangdai dianying* 2 (2016): 93-7
Guo Youshou. "Woguo dianying jiaoyu yundong de niaokan," *Jiao yu xue* 1.8 (1936): 82-92.
_____. *Woguo zhi jiaoyu dianying yundong.* Nanjing: Zhongguo jiaoyu dianying xiehui, 1935.
_____. "Zhongguo jiaoyu dianying xiehui chengli shi." *Zhongguo dianying ni bu zhidao*

de na xie shi'er, edited bySun Jiansan, 247-51. Beijing: Shijie tushu, 2010.
_____. "Zhongguo jiaoyu dianying xiehui gaikuang." *Dianying yu boyin* 3.1 (1944): 1-2.
"Guoguang." *Dian hua jiao yu* 2 (1937): 21.
"Guolian jiaoyu weiyuan Sa di yanjiang dianying yu jiaoyu." *Henan jiaoyu ribao* (22 Jan, 1932): n.p.
Guojuin, Hong. "Meet me in Shanghai: Melodrama and the Cinematic Production of Space in 1930s Shanghai Leftist Films." *Journal of Chinese Cinemas* 3.3 (2009): 215-230
Han Yuhai. "Speech Without Words." Translated by Matthew Hale. *Positions: East Asia Cultures Critique* 15.2 (2007): 369-401.
Hansen, Miriam Bratu. *Babel and Babylon: Spectatorship in American Silent Film.* Cambridge MA: Harvard University Press, 1991.
_____. "Fallen Women, Rising Stars, New Horizons: Shanghai Silent Film As Vernacular Modernism." *Film Quarterly* 54.1 (2000): 10-22.

_____. "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism." In *Reinventing Film Studies*, edited by Christine Gledhill and Linda Williams, 332-350. New York: Bloomsbury, 2000.
_____. "Vernacular Modernism: Tracking Cinema on a Global Scale." In *World Cinemas, Transnational Perspectives,* edited by Nataša Ďuricová and Kathleen Newman, 287-314. New York: Routledge, 2010.
Hardt, Michael and Antonio Negri *Multitude: War and Democracy in the Age of Empire.* New York: Penguin, 2005.
Harootunian, Harry. "Some Thoughts on Comparability and the Space-Time Problem." *boundary 2* 32.1 (2005): 23-52.
Hayford, Charles Wishart. *To the People: James Yen and Village China.* New York: Columbia University Press, 1990.
Hediger, Vinzenz and Patrick Vonderau, eds. *Films that Work.* Amsterdam: Amsterdam University Press, 2009.
Heidegger, Martin. *Basic Writings Revised and Expanded Edition,* edited by David Farrell Krell. New York: Harper Collins, 1977.
_____. "The Origin of the Work of Art." In *Poetry, Language Thought*, translated by Albert Hofstadter, 15-86. New York: Harper Colophon, 1971.
_____. "The Age of World Picture." In *The Question Concerning Technology and Other Essays,* translated by William Lovitt, 115-154. New York: Garland Publishing, 1977.
Henderson, Linda."Editor's Introduction: 1. Writing Modern Science—An Overview. II. Cubism, Futurism and Ether Physics in the Early Twentieth Century." *Science in Context* 17.4 (2004).
Hookway, Brandon. *Interface.* Cambridge MA: Massachusetts Institute of Technology Press, 2014.
Hou Yi. "Muxing zhi guang." In *Zhongguo zuoyi dianying yundong,* edited by Dianying ju dang shi ziliao zhengji gongzuo lingdao xiaozu, 513. Beijing: Zhongguo dianying chubanshe, 1993.
Houle and Changlin. "Lutian dianying fangying mu: cimu wei jinling daxue lixue yuan jiaoyu dianying bu suo sheji." *Dianying yu boyin* 2.2 (1943): 15-16.
Hu Shi. "Some Modest Proposals for the Reform of Literature." Translated by Kirk Denton. In *Modern Chinese Literary Thought: Writings on Literature, 1893-1945,* edited by Kirk Denton, 123-138. Stanford: Stanford University Press, 1996.
Huang Bawo. "Dianying jiaoyu de bei ai." *Dianying yu boyin* 10.5 (1947): 255.
Huang Xuelei. *Shanghai Filmmaking: Crossing Borders, Connecting the Globe: 1922-1938.* Boston: Brill, 2014.
Jameson, Fredric. "Third World Literature in the Age of Multinational Capitalism." *Social Text*

15 (1986): 65-88.
"Jiaoyu bu minzhong jiaoyu xunhui shijiao che shijiao banfa" (no author). *Jiaoyu tongxun (Hankou),*18 (1938): 22.
Jin da lixue yuan dianying jiaoyu bu. "Huangshan Qingdao ji dongwu feiliao yingpian shuoming," *Kexue jiaoyu* 4.2 (1937): 57-60.
Jin Qingyu. "Xiaoxing dianying yu yidong fangying dui." *Zhongguo jiaoyu dianying xiehui tekan,* edited byZhongguo jiaoyu dianying xiehui, 60. Nanjing: Zhongguo jiaoyu dianying xiehui, 1935.
"Jinling daxue ji gongying huan wo he shan." *Dianying yu boyin* 1.7-8 (1942): 38.
Jacobson, Brian. "The Black Maria: film studio, film technology (cinema and the history of technology)," *History and Technology: An International Journal* 27.2 (2011): 235-6.
Jameson, Fredric. *Postmodernism, or, the Cultural Logic of Late Capitalism.* Durham: Duke University Press, 2003.
Jiamo (Huang Jiamo). "Yingxing yingpian yu ruanxing yingpian." In *Sanshi niandai zhongguo dianying pinglun wenxuan,* edited by Chen Bo and Ming Yi, 843-5. Beijing :Zhongguo dianying, 1993.
Jiang Jianxia. "Guanyu yingping ren," *Weiyi huabao* 1 (1934): n.p.
Jiang Shecun. "Ping Yinshui weisheng." *Jiaoyu dianying yanjiuji*, edited by Jiangsu Zhenjiang shengli minzhong jiaoyu guan dianying jiaoyu weiyuan hui, 89. Zhenjiang: Jiangsu Zhenjiang shengli minzhong jiaoyu guan, 1935.
Johnson, Matthew D. *International Wartime Origins of the Propaganda State: The Motion Picture in China, 1897-1955*. Doctoral Dissertation, University of San Diego, 2008. Proquest Digital Dissertations, 2008.
_____. "'Journey to the Seat of War': The International Exhibition of China in Early Cinema." *Journal of Chinese Cinemas* 3.2 (2009): 109-122.
_____. "Propaganda and Censorship in China Cinema." In *Companion to Chinese Cinema,* edited by Zhang Yingjing, 153-78. Oxford and Malden MA: Blackwell, 2012.
_____. "Propaganda and Sovereignty in Wartime China: Morale Operations and Psychological Warfare under the Office of War Information." *Modern Asian Studies* 45.2 (2011): 303-44.
_____. "The Science Education Film: Cinematizing Technocracy and Internationalizing Development." *Journal of Chinese Cinemas* 5.1 (2011): 31-53
Jones, Andrew F. *Developmental Fairy Tales : Evolutionary Thinking and Modern Chinese Culture*. Cambridge, Mass: Harvard University Press, 2011.
_____. *Yellow Music: Media Culture and Colonial Modernity in the Chinese Jazz Age.* Durham: Duke University Press, 2001.
Ka Che-yip. "Health and Nationalist Reconstruction: Rural Health in Nationalist China, 1928-1937." *Modern Asian Studies* 26.2 (1992): 395-415
Kang, Ling. "Sounding Body: Public Speech and Embodied Voice in Revolutionary Cinema." Society of Cinema and Media Studies Conference, 25 March, 2017. Fairmont Hotel, Chicago, IL.
Kang Youwei. *Datong shu.* Beijing: Renmin chubanshe, 2010.
Ke (Ke Ling). "Huangjin shidai." *Diansheng* 3.38 (1934): 754.
Ke Ling. "Shilun nongcun pian." *Dianying yishu* 9 (1962): 57-63.
Kexue jiaoyu dianying weiyuan hui. "Fang du yingpian shezhi jinggguo ji shuoming." *Kexue jiaoyu* 3.1-2 (1936): 71-83.
Kirby, Lynne. *Parallel Tracks: The Railroad and Silent Cinema.* Durham: Duke University Press, 1997.
Kirby, William C. "The Chinese Party-State Under Dictatorship and Democracy on the Mainland and on Taiwan." In *Realms of Freedom in Modern China,* edited by William C. Kirby,

113-138. Stanford: Stanford University Press, 2003.
_____. "Engineering China: Birth of the Developmental State, 1928-1937." *Becoming Chinese*, edited byWen-hsin Yeh, 137-60. Berkeley: University of California Press, 2000.
Kittler, Friedrich. *Gramophone, Film, Typewriter.* Translated by Geoffery Winthrop Young and Michael Wutz. Stanford CA: Stanford University Press, 1999.
Kohana, Jonathan. *Intelligence Work: The Politics of American Documentary.* New York: Columbia University Press, 2013.
Kramer, Hanae Kurihara. "Film Forays of the South Manchuria Railway Company." *Film History* 24 (2012): 97-113.
Lam, Tong. *A Passion for Facts : Social Surveys and the Construction of the Chinese Nation State, 1900-1949*. Berkeley: University of California Press, 2011.
Larkin, Brian. *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria.* Durham: Duke University Press, 2008.
Laughlin, Charles. *Chinese Reportage: The Aesthetics of Historical Experience.*Durham: Duke University Press, 2002.
League of Nations International Educational Cinematographic Institute Files. Mfilm Reel U1-3-4223. Shanghai Municipal Archive. Shanghai, China.
League of Nations Mission of Educational Experts. *The Reorganization of Education in China.* Paris: League of Nations' Institute of Intellectual Co-operation, 1932.
"League of Nations, International Educational Cinematographic Institute," Shanghai Municipal Archive U1-3-4223.
Lee, Haiyan. *Revolution of the Heart*: *A Genealogy of Love in China, 1900-1950.* Stanford: Stanford University Press, 2007.
Lee, Leo Ou-Fa. *Shanghai Modern : The Flowering of New Urban Culture in Shanghai*, *1930-45*. Cambridge MA: Harvard University Press, 1999.
Lefebvre, Henri. *The Production of Space.* Translated by Donald Nicholson Smith. Cambridge, MA: Blackwell, 1991.
Lei, Sean Xiang-lin. ""Moral Community of Weisheng: Contesting Hygiene in Republican China." *East Asian Science, Technology and Society: An International Journal* 3 (2009): 475-504.
"Lianhe guo yingwen xuanchuan chu chengdu qu liutong jinkuang." *Dianying yu boyin* 3.7-8 (1944): 34
"Lianhe guo yingwen xuanchuan chu xiuzhen pian ju li." *Dianying yu boyin* 3.6 (1944): 10.
Liang Shuming. "Xiangcun jianshe yu minzhong jiaoyu." *Jiaoyu yu minzhong* 6.1 (1934): 53.
Li Daoxin. *Zhongguo dianying shi* (1937-1945). Beijing: Shoudu shifan daxue chubanshe, 2000.
Li Donghui. "Minguo shiqi Jiangsu sheng li minzhong jiaoyu guag tan zheng: Yi Jiangsu shengli Zhenjiang minzhong jiaoyu guan wei ge an." *Zhenjiang gao zhuang xue bao* 23.4 (2010): 94-8.
Li, Jie. "Phantasmagoric Manchukuo: Documentaries Produced by the South Manchurian Railway Company, 1932 – 1940." *positions* 22.2 (2014): 329-369.
Li, Lillian. *China's Silk Trade: Traditional Industry in the Modern World, 1842-1937.* Cambridge MA: Harvard University Press, 1981.
Li Wuzhou. "Liu Zhichang: Pingfan er weida de dianhua jiaoyu xianqu." *Xiandai jiaoyu jishu* 21.7 (2011): 5-9.
Li Yu. "Yi Peng Xue." *Zhongguo jingju xi kao*. Accessed 15 June, 2017. scripts.xikao.com/play/001015012.
Liu, Lydia. "Life as Form: How Biomimesis Encountered Buddhism in Lu Xun." *Journal of Asian Studies* 68.1 (2009): 21-54.
_____. *Translingual Practice: Literature, National Culture, and Translated Modernity—China, 1900-1937.* Stanford: Stanford University Press, 1995.
Liu Na'ou. "Dianying xingshi mei de tansuo." *Wanxiang* 1 (1934): n.p.

_____. "Ping chuncan." *Mao Dun* 2.3 (1933): 120-1
_____. "Zhongguo dianying miaoxie de shendu wenti." In *Bainian zhongguo dianying lilun wenxuan,* edited by Ding Yapin, 158-63. Beijing: wenhua yishu chubanshe, 2000.
Liu Yungu and Xu Langqiu. "Jiangsu shengli Zhenjiang minzhong jiaoyu guan chubu jihua cao an." *Minzhong jiaoyu* 2.7 (1930): 75-99.
Liu Zhichang. "Dianying jiaoyu chubu shishi fa." *Minzhong jiaoyu tongxun* 3.10 (1934): 19-57.
_____. "Huangjin shidai yingpian jiaoxue fangan." *Mingzhong jiaoyu tongxun* 6.3 (1936): 49-60.
Liu Zhichang and Jiang Shecun. *Dianying jiaoyu shishi fa.* Zhenjiang: Jiangsu Zhenjiang minzhong jiaoyu guan, 1934.
_____. "Guo guang yingpian jiaoxue fangan." *Minzhong jiaoyu tongxun* 6.2 (1936): 30-45.
_____. "Jiaoxue yingpian bianzhi ju li," *Zhonghua jiaoyu jie* 24.5 (1936): 59-67.
_____. "Shiji de jiaoyu dianying jiangying fa." *Minzhong jiaoyu tongxun* 5.3 (1935): 1-19.
_____. "Yinshui weisheng jiaoxue fangan." *Minzhong jiaoyu tongxun.* 5.9 (1935): 50-65.
Lu Si, "Ping Yanchao." In *Zhongguo wusheng dianying,* edited by Zhongguo dianying ziliao guan, 556-7. Beijing: Zhongguo dianying chubanshe, 1996.
Lu, Sheldon, ed. *Transnational Chinese Cinemas: Identity, Nation, Gender.* Honolulu: University of Hawaii Press, 1997.
Lu Xun, "Dianying de jiaoxun." In *Zhongguo zuoyi dianying yundong,* edited by Dianying ju dang shi ziliao zhengji gongzuo lingdao xiaozu, 82-3. Beijing: Zhongguo dianying chubanshe*,* 1993.
_____. "Men wai wen tan." In *Qie jie ting zawen*, 65-87. Beijing: Renmin wenxue chubanshe, 1973.
_____. "'Preface' to *Call to Arms.*" Translated by Yang Xianyi and Gladys Yang. *Modern Chinese Literary Thought: Writings on Literature, 1893-1945,* edited by Kirk A. Denton, 239-40. Stanford: Stanford University Press, 1996.
_____. "Wanju," *Huabian wenxue*, douban.com. https://site.douban.com/107795/widget/notes/264538/note/134284764/. Accessed 17 May, 2017.
_____."Wusheng de zhongguo." In *Lu Xun zawen xuan,* edited by Liu Fengyi and Wei Jianggang, 152-158. Changchun: Jilin chuban jituan youxian zeren gongsi, 2009.
Luo Jingyu. "Dianying de guoce." *Zhongguo dianying* 2 (1941): 78.
Mao Dun. "Spring Silkworms." Translated by Sidney Shapiro. *The Columbia Anthology in Modern Chinese Literature 2nd Edition,* edited byJoseph Lau and Howard Goldblatt, 56-73. New York: Columbia University Press, 2007.
Mao Dun, "Suxie yi," *Mao dun sanwen ji.* Canshuwang. http://www.99lib.net/book/2314/69610.htm. Accessed 17 May, 2017.
Mao Yifeng. "Canguan huaxin zhi si yang cheng suo yi lai." *Fangzhi zhoukan* 2.25 (1932): 670-1.
Marchessault, Janine and Susan Lord, eds. *Fluid Screens, Expanded Cinema.* Toronto: University of Toronto Press, 2007.
Marshall, John. Letter to J.B. Grant. 23 June, 1939. Rockefeller Foundation Archives. Sleepy Hollow, NY. Record Group 1, Series 601, Box 50, Folder 418.
Marx, Karl. *Capital Vol. 1.* Translated by Ben Fowkes. New York: Penguin, 1976.
_____. *Grundrisse.* Translated by Martin Nicolaus. New York: Penguin, 1973.
Mattelart, Armand. *Mapping World Communication: War Progress, Culture.* Translated by Susan Emanuel and James A. Cohen. Minneapolis: University of Minnesota Press, 1994.
Dean MacCannell. *The Tourist: A New Theory of the Leisure Class.* Los Angeles: University of California Press, 1999.
McGrath, Jason. "Acting Real: Cinema, Stage, and Modernity of Performance in Chinese Silent Film." In *The Oxford Handbook of Chinese Cinemas*, edited by Carlos Rojas. Oxford: Oxford University Press, 2013. www.oxfordhandbooks.com.

Memo from Schlesinger to Marshall. Jan 1 1940. Rockefeller Foundation Archives. Sleepy Hollow, NY. Record Group 1, Series 601, Box 50, Folder 418.

Metz, Christian. "Impersonal Enunciation, or the Site of Film (In the Margin of Recent Works on Enunciation in Cinema." Translated by Béatrice Durand-Sendrail and Kristen Brookes. *New Literary History* 22.3 (1991): 747-772.

Mitchell, Timothy. *Colonizing Egypt*. Cambridge UK: Cambridge University Press, 1988.

_____. "The Limits of the State: Beyond Statist Approaches and their Critics." *The American Political Science Review* 85.1 (1991): 77-96.

Mitchell, W.J.T. "Imperial Landscape." In *Landscape and Power,* edited by W.J.T. Mitchell, 5-34. Chicago: University of Chicago Press, 1994.

Mitry, Jean. *Aesthetics and Psychology in the Cinema.* Translated by Christopher King. Bloomington, IN: Indiana University Press, 1990.

Musser, Charles. "The Travel Genre in 1903-1904: Moving Toward Fictional Narrative." *Iris* 2.1 (1984): 47-60.

Ngai, Sianne. *Ugly Feelings.* Cambridge MA: Harvard University Press, 2005.

Nornes, Marcus. *Cinema Babel: Translating Global Cinema.* Minneapolis: University of Minnesota Press, 2007.

Pan Gongzhan. "Shishi dianying jiaoyu de tujing," *Zhongguo dianying nianjian 1934.* Beijing: Guangbo dianshi chubanshe, 2008.

Pang Laikwan. *Building A New China in Cinema: The Chinese Left-Wing Cinema Movement, 1932-1937.* Oxford: Rowman and Littlefield, 2002.

Peirce, Charles S. *Chance, Love and Logic: Philosophical Essays,* edited by Morris Cohen. Lincoln NE: University of Nebraska Press, 1998.

Peng, Jiaoxue. *Minguo shiqi jiaoyu dianying fazhan jianshi*. Beijing: Zhongguo chuanmei daxue chuban she, 2008.

Pepper, Suzanne. *Radicalism and Education Reform in 20th-Century China: The Search for an Ideal Development Model.* Cambridge UK: Cambridge University Press, 1996.

Peterson, Glenn. *The Power of Words: Literacy and Revolution in South China, 1949-95*. Vancouver: University of British Columbia Press, 1997.

Peterson, Jennifer Lynn. *Education in the School of Dreams.* Durham: Duke University Press, 2013.

Qu Qiubai. "The Question of Popular Literature and Art." Translated by Paul Pickowicz. In *Modern Chinese Literary Thought: Writings on Literature, 1893-1945,* edited by Kirk Denton, 418-27. Stanford: Stanford University Press, 1996.

"Quanguo jiaoyu dianying tuiguang chu yingpian leimu yi lan biao" (no author listed). *Fujian jiaoyu zhoukan* 183 (1934): 42-7.

Rancière, Jacques. *Film Fables.* Translate by Emiliano Battista. New York: Berg, 2006.

_____. *The Politics of Aesthetics.* Translated by Gabriel Rockhill (New York: Bloomsbury, 2004.

"Riben xiaoxue dianying jiaoyu yi zai qinglüe zhongguo." *Henan jiaoyu ribao* 204 (Jan. 1, 1932): n.p.

Richards, Ivor Armstrong. *Basic in Teaching: East and West.* London: Keegan, Paul, Trench, Trubner and co., 1935.

Rogaski, Ruth. *Hygenic Modernity: Meanings of Health and Disease in Treaty-Port China*. Berkeley: University of California Press, 2004.

Rogers, Ariel. *Cinematic Appeals: The Experience of New Movie Technologies.* New York: Columbia University Press, 2013.

Rowe, David Nelson. "OWI's Far Eastern Outposts: Some Proposals." *Public Opinion Quarterly* 7.1 (1943): 91-2.

Sa'er di (Alessandro Sardi). "Dianying yu zhongguo." Translated by Peng Baichuan and Zhang Peiying. *Minzhong jiaoyu tongxun* 3 (1933), 14-54.

_____. "Yi da li guoli jiaoyu dianying guan gai kuang (The National Luce Institute)." Translated by Peng Baichuan and Zhang Peiying, *Dianying jiancha weiyuanhui gongbao* 1.7 (1932): 20-9.

Saettler, L. Paul. *The Evolution of American Educational Technology.* Greenwich CT: Information Age Publishing, 2004.

Said, Edward. *Culture and Imperialism.* New York: Alfred Knopf, 1993.

"Sanshi san nian shiyi yue san ri you yu lianheguo yingwen xuanchuanchu fachu xiuzhen ruanpian mulu." *Dianying yu boyin* 3.7-8 (1944): 39.

Sardi, Alessandro. *Cinema and China*. Rome: International Educational Cinematographic Institute, 1932.

Saussy, Haun. *The Problem of the Chinese Aesthetic.* Stanford CA: Stanford University Press, 1993.

Schivelbusch, Wolfgang. *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century.* Berkeley: University of California Press, 1977.

Schlanger, Ben. "Reversing the Form and Inclination of the Motion Picture Theater Floor for Improving Vision." *Journal of the Society of Motion Picture Engineers* 17.2 (August, 1931): 161-171.

Schramm, Wilbur. "How Communication Works." In *Processes and Effects of Mass Communication,* edited by Wilbur Schramm, 3-26. Urbana: University of Illinois Press, 1954.

Shi Nai'an. *The Water Margin: Outlaws of the Marsh*. Translated by Sidney Shapiro. Beijing: Foreign Languages Press, 2001.

Shi Xingqing. *Minguo jiaoyu dianying yanjiu, yi Sun Mingjing wei ge an.* Beijing: Zhongguo chuanmei daxue, 2014.

Shu Xincheng. *Dianhua jiaoyu jianghua.* Shanghai: Zhonghua shuju, 1948.

Sieppman, Charles. "Propaganda and Information in International Affairs." *Yale Law Journal* 55.2 (Aug, 1946): 1258-1280.

Sigmund Freud, *Beyond the Pleasure Principle.* Translated by C.J.M. Hubback. London: International Psycho-analytical Press*,* 1922.

Simondon, Gilbert. "Technical Mentality." Translated by Arne De Boever, *Parrhesia* 7 (2009): 7-27.

Smith, Neil. *Uneven Development: Nature, Capital, and the Production of Space.* Athens and London: University of Georgia Press, 1990.

_____. "On the Necessity of Uneven Development." *International Journal of Urban and Regional Research* (1986): 88-104.

Strand, David. "'A High Place is Better than a Low Place': The City in the Making of Modern China." *Becoming Chinese*, edited byWen-hsin Yeh, 98-136. Berkeley: niversity of California Press, 2000.

Strauss, Julia. *Strong Institutions in Weak Polities: State-Building in Republican China, 1927-1940.* Oxford: Clarendon Press, 1998.

Sun Mingjing*. 1937 nian Zhanyun bianshang de lie ying*. Jinan: Shandong huabao chubanshe, 2003.

_____. "Daxue tuixing jiaoyu dianying ju li: meiguo ming li su da daxue shijue jiaoyu fuwu gaikuang." *Dianying yu boyin* 5.1 (1946): 3-12.

_____. "Dianhua jiaoyu yu xikang jianshe," *Dianying yu boyin* 3.7-8 (1945): 7-8.

_____. *Filming as War Clouds Loom in 1937—6000km with a Cinecamera.* Translated by Sun Jianqiu. Beijing: Foreign Languages Press, 2006.

_____."Jiaoyu dianying zhi shezhi." *Kexue jiaoyu* 4.2 (1937): 17-22.

_____. *Sun mingjing shouji,* edited by Sun Jianqiu and Sun Jianhe. Beijing: Shijie tushu, 2013.

_____. "Yingyin yu dianhua jiaoyu." *Yingyin* 6.1-2 (1947): 22.

_____. "Zhongguo wenhua dageming zhong de yi ge xiao shiyan." *Yingyin* 7.8 (1948): 91-101.

Sun Shiyi et. al. "Zhongguo dianying de luxian wenti." *Zhongguo dianying,* 1 (1941): 7-16.
Sun Yat-sen. *The International Development of China.* New York: Putnam, 1922.
Swen Ming-ching (Sun Mingjing). Letter to Oliver Caldwell. December 30, 1940. Archives of the United Board of Christian Higher Education in Asia. Mfilm reel IV, 87.
_____. Letter to Oliver Caldwell. 11 February 1941. Archives of the United Board of Christian Higher Education in Asia. Mfilm reel IV, 87.
_____. "The Fifth Start." *Educational Screen* (October 1947): 430-4.
_____. "The University of Nanking Presents a Film on Chinese Salt Wells." Archives of the United Board of Christian Higher Education in Asia, Mfilm reel IV 87.
Taillibert, Christel. "Le cinéma, instrument de politique extérieure du fascisme italien." *Mélanges de L'Ecole française de Rome. Italie et Méditerrané* 110. 2 (1998): 943-962.
Tan Sitong. *An Exposition of Benevolence: Jen-hsüeh of T'an Ssu-t'ung.* Translated by Chan Sin-wai. Hong Kong: Chinese University of Hong Kong, 1984.
Tan Yun. "Pin huangjin shidai." *Xiandai xinwen* 1.1 (1934): 10.
Tang Na. "Qingsuan ruanxing dianying lun." In *Sanshi niandai dianying pinlun wenxuan,* edited by Chen Bo, 746-63. Beijing: Zhongguo dianying chubanshe, 1993.
Tanner, Harold M. "Railways in Communist Strategy and Operations in Manchuria, 1945-48." *Manchurian Railways and the Opening of China: An International History,* edited by Bruce Elleman and Stephen Kotkin, 149-70. Armonk NY: M.E. Sharpe, 2010.
Tsu, Jing. *Failure, Nationalism and Literature: The Making of Modern Chinese Identity, 1895-1937.* Stanford CA: Stanford University Press, 2005.
William Tunner. *Over the Hump.* New York: Booton Hendron, 1964.
U.S. Department of Commerce. "Motion Pictures in China." *Trade Information Bulletin no. 722*. Washington DC: Government Printing Office, 1939.
U.S. Information Service American Consulate Letter. 15 April, 1946. Chongqing Municipal Archive no. 0086001002470000039.
Vertov, Dziga. "We: Variant of a Manifesto," in *Kino-eye: Writings of Dziga Vertov.* Edited by Annette Michelson and translated by Kevin O' Brien. Berkeley: University of California Press, 1984.
Virilio, Paul. *Speed and Politics.* Translated by Marc Polizzotti. Los Angeles: Semiotext(e), 2006.
_____. *War and Cinema: The Logistics of Perception.* Translated by Patrick Camillier. New York: Verso, 1989.
Virno, Paulo. *A Grammar of the Multitude: For an Analysis of Contemporary Forms of Life.* Cambridge MA: Massachusetts Institute of Technology Press, 2004.
Voci, Paula. *China on Video: Smaller Screen Realities,* Columbia University Press, 2013.
Wang Chaoqing. "Zhongguo weihe er zhan de zhizuo ji qi jiazhi." *Dianying yu boyin* 3.9-10 (1944): 32-3.
Wang Chaozhang. "Puji dianhua jiaoyu shixi gongzuo baogao." *Dianying yu boyin* 4.2 (1945): 27-8.
Wang, David Der-wei. *Fictional Realism in Twentieth Century China: Mao Dun, Lao She, and Shen Congwen.* New York: Columbia University Press, 1992.
Wang, Pingling."Zhanshi jiaoyu dianying de bianzhi yu fanying." *Kang ri zhan zheng shiqi de Chongqing dianying, 1937-1945*, edited by Wang Congxue, 154-162. Chongqing; Chongqing chubanshe, 1991.
Wang Shuming. "Suzhou mingsheng ji you." *Xuesheng wenyi yekan* 4.7 (1933): 52-66.
Wang, Yudeng. "Canguan Sa'di nanjue de jiaoyu dianying biaoyan." *Shanghai shi jiaoyu ju jiaoyu zhoubao* 139 (1932): 1-2.
Wang, Zhuoyi. *Revolutionary Cycles in Chinese Cinema, 1951-1979*. New York: Palgrave McMillian, 2014.
Wasson, Haidee. "Electric Homes! Automatic Movies! Efficient Entertainment!: 16mm and Cinema's Domestication in the 1920s." *Cinema Journal,* vol. 48, no. 4, 2009, pp. 1-21.

_____. *Museum Movies: The Museum of Modern Art and the Birth of Art Cinema,* University of California Press, 2005.
_____. "The Networked Screen: Moving Images, Materiality, and the Aesthetics of Size." *Fluid Screens, Expanded Cinema,* edited by Janine Marchessault and Susan Lord, University of Toronto Press, 2007.
_____. "Protocols of Portability." *Film History: An International Journal* 25.1 (2013) 236-247.
Wasson, Haidee and Charles Acland, eds. *Useful Cinema*. Durham: Duke University Press, 2011.
Wiatr, Elizabeth. "Between Word, Image and Machine: Visual Education and Films of Industrial Process" *Historical Journal of Film, Radio and Television* 22.3 (2002): 333-351.
_____. "Seeing American: Visual Education and the Making of Modern Observers, 1900-1935." Doctoral Dissertation, UC Irvine, 2003.
Weidner, Terry M. "Local Political Work Under the Nationalists: The 1930s Silk Reform Campaign," *Illinois Papers in Asian Studies vol. 2*. Urbana, IL: University of Illinois Center of Asian Studies, 1983.
Wen Fuli. "Di er zhan yu xiuzhen pian." *Dianying yu boyin* 3.6 (1944): 1.
Widdis, Emma. *Visions of a New Land: Soviet Film from the Revolution to the Second World War*. New Haven: Yale University Press, 2003.
Wood, Ben D. and Frank N. Freeman. *Motion Pictures in the Classroom: An Experiment to Measure the Value of Motion Pictures as Supplementary Aids in Regular Classroom Instruction.* Boston: Houghton Mifflin, 1929.
Wright, David. "Tan Sitong and the Ether Reconsidered." *Bulletin of the School of Oriental and* African Studies, University of London 57.3 (1994): 553-4.
Xi Naifang (Zheng Boqi). "Dianying zuiyan." In *Bainian zhongguo dianying lilun wenxuan* vol 1, edited by Ding Yapin, 146-50. Beijing: Wenhua yanjiu chuban she, 2001.
Xiao, Zhiwei. "Anti-Imperialism and Film Censorship during the Nanjing Decade," *Transnational Chinese Cinemas: Identity, Nation, Gender,* edited by Sheldon Lu, 35-58. Honolulu: University of Hawaii Press, 1997.
"Xiuzhen yingpian xin zuofeng, shuoming liyong da guci." *Dianying yu boyin* 4.6 (1945): 149.
Xu Guanyu. "Dianying zai shehui jiaoyu xian shang de ren ming." In *Zhongguo wusheng dianying,* edited by Li Suyuan, 550-3. Beijing: Zhongguo dianying, 1996, 552.
Xun Zi. "Xunzi-Zidao.*" Ziyewang.* Accessed 15 June, 2017. http://www.ziyexing.com/files-5/xunzi/xunzi_29.htm.
Yan Yuejiao and Zhang Liangyou. "Zigong yanchang zai kangri zhangzhen zhong de diwei he zuoyong." *Yanye shi yanjiu* 4 (1991): 49-53
Yang Ruibin and Qiu Longhong. "Minguo shiqi Zhenjiang chengshi jianshe yu qi jiaoxun." *Zhenjiang gaozhuan xuebao* 14.1 (2001): 23-7.
Yang, Zhesheng. *Guomindang jiao fu Chen Guofu.* Shanghai: Shanghai renmin chubanshe, 2010.
Yao Yiyun. *Jing hu lu lüxing zhinan.* Shanghai: Shijie chuban hezuoshe, 1933.
Yeh, Emilie Yueh-yu. "*Wenyi* and the branding of early Chinese film." *Journal of Chinese Cinemas* 6.1 (2012): 65-94.
"Yingyin jiaoyu zhengming bian," *Yingyin* 6.7-8 (1947): 118-120.
"Yiyue jian: Xunhui shijiao che" (no author listed). *Dianhua jiaoyu,* 1.5 (1937): 26-7.
Yu Dafu. "Dianying yu wenyi." In *Zhongguo wusheng dianying,* edited by Li Suyuan, 448-10. Beijing: Zhongguo dianying, 1996.
Yun Zhen, "Dianqi wang," *Jianshe yuekan* 9 (1930): 36-44.
Zhang Henshui. *Si shui liu nian.* Shaanxi: Shannxi renmin chubanshe, 2008.
Zhang, Yingjin. *Chinese National Cinema.* New York: Routledge, 2004.
_____. *Cinema, Space, and Polylocality in a Globalizing China.* Honolulu: Hawaii University Press, 2010.
Zhang, Yu. "Visual and Theatrical Constructs of a Modern Life in the Countryside: James Yen,

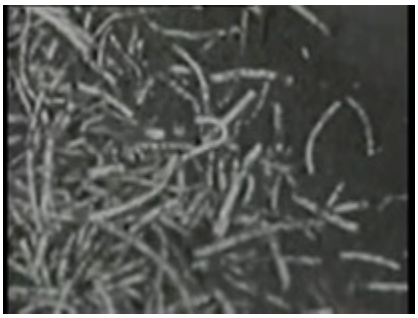
Xiong Foxi, and the Rural Reconstruction Movement in Ding County (1920s-1930s)." *Modern Chinese Literature and Culture* 25.1(2013): 47-95.
Zhang Zhao. "Zhongying gengkuang hui chuan kang kexue kaocha tuan." *Kexue* 24.3 (1945): 240-1.
Zhang Zhen. *An Amorous History of the Silver Screen: Shanghai Cinema 1896-1937*. Chicago and London: University of Chicago Press, 2005.
Zhao Hongxiang. "Ben guan shishi dianhua jiaoyu zhi gaishu." *Minzhong jiaoyu tongxun* 7.1 (1937): 1-12.
_____. *Jiangsu shengli Zhenjiang minzhong jiaoyu guan dianhua jiaoyu gaishu.* Zhenjiang: Jiangsu shengli minzhong jiaoyu guan, 1937.
_____. "Jiangsu shengli zhenjiang minzhong jiaoyu guan er shi wu nian du shishi fangan dagang." *Minzhong jiaoyu tongxun* 6.6 (1936): 1-36.
_____. "Yi nian lai jiangsu jiaoyu dianying shiye zhi gaikuang." *Zhongguo jiaoyu dianying xiehui tekan,* 67-80. Nanjing: Zhongguo jiaoyu dianying xiehui, 1936.
Zhao Huikang and Jia Leilei. *Zhongguo kejiao dianying shi.* Beijing: Zhongguo dianying chubanshe, 2005.
Zhao Guangtao. *Dianhua jiaoyu gailun.* Shanghai: Shangwu yinshu guan, 1947.
Zheng Boqi. "Yu guang qu," In *Sanshi niandai dianying pinlun wenxuan,* edited by Chen Bo, 334-8. Beijing: Zhongguo dianying chubanshe, 1993.
Zheng Junli. "Zhongguo dianying fazhan jian shi." In *Zhongguo wusheng dianying,* edited by Li Suyuan, 1385-1432. Beijing: Zhongguo dianying, 1996.
Zheng Zhengqiu. "Ruhe zou qianjin zhi lu." *Bainian zhongguo dianying lilun wenxuan* vol 1, edited by Ding Yapin, 128-132. Beijing: Wenhua yanjiu chuban she, 2001.
Zhi Zhang. "Jiaoyu dianying chang de jianzhu sheji." *Minzhong Jiaoyu Tongxun* 3.10 (1934): 59-72.
Zhiwei Xiao. "Prohibition, Politics, and Nation Building: A History of Film Censorship in China." In Daniel Biltereyst and Roel Vande Winkel, *Silencing Cinema: Film Censorship around the World.* New York: Palgrave McMillian, 2013.
Zhongguo jiaoyu dianying xiehui. *Zhongguo dianying nianjian 1934.* Beijing: Guangbo dianshi chubanshe, 2008.
_____. "Zhongguo dianying shiye zhi chu lu." In *Zhongguo dianying ni bu zhi dao de na xie shi'er: Zhongguo zaoqi dianying gaodeng jiaoyu shiliao wenxian shihui,* edited by Sun Jiansan, 374-387. Beijing: Shijie tushu, 2010.
_____. *Zhongguo jiaoyu dianying xiehui di si jie nianhua zhuankan*. Nanjing: Zhongguo jiaoyu dianying xiehui, 1935.
_____. *Zhongguo jiaoyu dianying xiehui huiwu baogao, di er nian hui.* Nanjing: Zhongguo jiaoyu dianying xiehui, 1933.
_____. *Zhongguo jiaoyu dianying xiehui huiwu baogao.* Nanjing: Zhongguo jiaoyu dianying xiehui, 1934.
_____. *Zhongguo jiaoyu dianying xiehui huiwu baogao, di si nian hui.* Nanjing: Zhongguo jiaoyu dianying xiehui, 1935.
_____. *Zhongguo jiaoyu dianying xiehui huiyuan mingdan*. Nanjing: Zhongguo jiaoyu dianying xiehui, 1937.
"Zhongguo weihe er zhan lu tian fangying." *Diangying yu boyin* 3.9-10 (1944): 32.
Zhou Huimei. *Jindai minzhong jiaoyu guan yanjiu,* Beijing: Beijing shifan daxue chubanshe, 2012.
_____. *Xin guomin de xiangxiang: Minguo shiqi minzhong xuexiao yanjiu.* Beijing: Bejing shifan daxue chubanshe, 2013.
Zhou Kaixuan. "Keda jiaoyu yingpian pingshu." *Zhejiang minzhong fudao ban yuekan* 3.2 (1936): 94-108.
Zhu Jing. *Yingyin jiaoyu yu zhongguo zhi lu tanyuan: guanyu zhongguo zaoqi dianhua jiaoyu shi*

de lijie yu jieshi. Tianjin daxue chubanshe, 2009.
Zhu, Ying and Zhang Tongdao. "Sun Mingjin and John Grierson, a Comparative Study of Early Chinese and British Documentary Film Movements." *Asian Cinema* 17.1 (2006): 230-24.
Zhu Yu. *Minzhong jiaoyu guan yu jicheng shehui xiandai gaizao (1928-1937): Yi Jiangsu wei Zhongxin.* Beijing: Shehui kexue wenxian chubanshe, 2012.
Zong Bingxin. *Jiaoyu dianying yanjiu ji*. Zhenjiang: Jiangsu Zhejiang shengli minzhong jiaoyu guan, 1934.
Zong Liangdong. *Jiaoyu dianying gailun.* Shanghai: Shangwu yinshu guan, 1936.

Appendix: Stills from Chapter 2

Series 1

1a



1b

Series 2

2a

2b

2c

2d

2e

2f

2g

2h

2i

2j **2k** **2l**

Series 3

3a **3b** **3c**

3d **3e** **3f**

3g **3h** **3i**

Series 4


4a


4b


4c

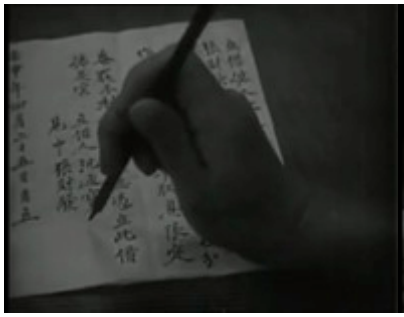

4d


4e


4f


4g

Series 5


5a


5b


5c

5d

5e

5f

5g

5h

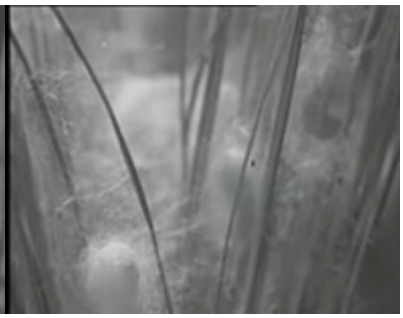
5i

5j

Series 6

6a

6b



6c

6d

6e

6f

6g

6h

6i

6j

Series 7

7a

7b

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7d

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7i

7j

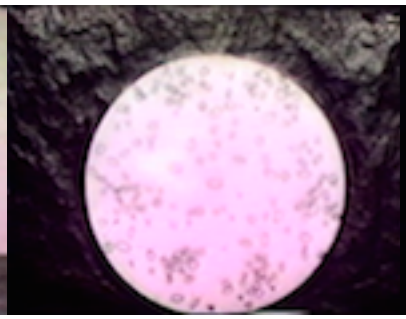
7k

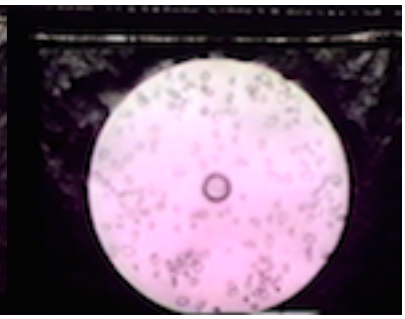
7l

7m

7n

7o





7p

7q

7r

7s

7t

7u

7v

7w