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Restorations in Agricultural Settings: The Importance of Context

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The definition of restoration is notoriously slippery. If we accept that the idealized definition of restoration is the return of a site to a state that existed prior to human disturbance, we must admit that many restorations fall short of this ideal. This is not a condemnation of restoration, nor an accusation of misleading practice; it is simply a recognition that this ideal is often unattainable for a variety of reasons. Restorations must compromise this ideal in order to become reality.

Restorations on agricultural sites are not exceptions to the generality of compromise. What these areas were prior to settlement has been obscured by the effects of subsequent human activity. What these areas can be restored to will continue to be affected by agriculture. The papers in this section serve well to illustrate important elements of the decision-making process that leads to the final shape of restoration projects. By examining the projects outlined in these papers, we can begin to understand what basis we have for deciding what are appropriate restoration goals and techniques, given that conditions exist which require that we compromise the ideal restoration scenario.

The basis for developing appropriate restoration goals and techniques lies in a thorough examination of the context of the site in question. The importance of the environmental context of a site is obvious. It would be inappropriate, not to mention difficult, to construct a wetland on a well-drained hilltop. However, other aspects of environmental condition are more subtle. Restoration projects in agricultural areas usually take place on land that has been removed from agricultural production (see Blumenthal for an important and interesting exception). The reasons why that land is no longer cultivated can have important implications for the restoration possibilities for that site. A farm abandoned because of soil exhaustion probably requires very different restoration goals and techniques than one abandoned solely because of financial considerations. Sometimes land is abandoned because it was unsuitable for agricultural in the first place. The conditions that make it unsuitable usually suggest appropriate restoration goals (see Propsom).

The type of agriculture practiced at a site also circumscribes restoration possibilities. The environmental impact of grazing is extraordinarily different than row-cropping. Grazing often leaves remnants of the original ecosystem behind (see Buchanan). These remnants, although seldom entirely intact, can provide not only a idea of the composition of the target community but also propagule sources as well. Large-scale row-cropping, on the other hand, can completely obliterate the original ecosystem oven many square miles. The uncultivated lands in these areas may not even be representative of the original ecological communities. They

might be woodlots planted in non-native trees, or abandoned pastures in various stages of invasion by native and non-native plants alike.

In less obvious ways, the context of a site goes far beyond mere physical considerations. Restoration sites reside in a legal and regulatory landscape as well as a physical landscape. Governments on all levels constrain possible land use through zoning laws and by giving land special designations such as preserves or refuges. In fact, government regulations are one of the main reasons restorations are undertaken in the first place. Mitigation requirements dictate the specifics of many restorations on public and private land. On government-owned land such as parks and wildlife refuges, management goals often have great influence in dictating which types of restoration are possible (see Propsom and Peterson).

Financial considerations are never far from the heart of any restoration decision making process. Economic constraints have the ultimate veto power over most restoration plans. Private restoration projects are not immune from these constraints (see Kaster). Public projects have the added burden of spending public money in a responsible way. This can sometimes lead to restoration choices made on the basis of the likely success of a project, regardless of how appropriate such a project may be for the site in question. More often, it appears that economic responsibility is achieved by carrying out restoration plans that do not conflict with the managerial aims of the institution in charge of the restoration.

In addition to the regulatory, managerial and economic contexts of restoration, government agencies need to be aware of the social considerations that surround restorations on public lands. The public are apt to view land managers as providing them with a product (see Stommers). On a superficial level, this means they want to see results that are immediate and impressive. Prairie restorations projects usually take this aspect of public scrutiny into consideration by placing a vibrant visual display of prairie flowers in an exceedingly public location. On a deeper level, the public wants to understand what is being done to the land. Providing an explanation of the restoration goals and process is a way for managers to assuage public concerns when restoration projects temporarily look ugly or unpleasant.

By explicitly examining this multiplicity of contexts surrounding restorations, we can begin to understand how particular restoration projects acquire their goals. No other paper in this section so clearly demonstrates the importance of assessing the full context of a restoration project as does Blumenthal's. By taking the social and economic context of the land into full consideration, the initiators of the project he describes come to the somewhat unique conclusion that the ecosystem which should be restored is not the presettlement ecosystem but the one that the agriculturalists in the area depend upon most. It is not wrong for restorationists to put the social and economic context of a project before the environmental context, it is realistic. In the situation described by Blumenthal, it would be absurd to ask the agriculturalists to

give up their land so that it could be restored to the presettlement vegetation, even if it were technically feasible. The project highlights the potential for restoration to become more than an exercise, however useful it may be, in regulation-prescribed mitigation or conservation education. When the entire context of a project is taken into consideration, restoration can become a way to help not only the land but also the people that depend on it.