11 Conclusion

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The preceding chapters have explored visual-cultural values and regulation of wetlands, both in the United States and in Britain, how people actually perceive wetlands, and how we can map and inventory visual characteristics of inland and coastal wetlands. Significantly, Part IV included some frameworks for evaluating wetlands for their visual, recreational, and educational values and for evaluating the visual impact of changes to wetlands themselves and from land-use changes adjacent to them. The sophistication of methodology or types of studies that can be done to assess visual-cultural values of wetlands is wide ranging.

Complexity of Methodology

A report commissioned by the U.S. Army Corps of Engineers reviewed the wetlands assessment methodology presented by Smardon and Fabos in Chapter 9. In essence, the author of the report said the method was too complex to be implemented by the Corps. A more recent report done by the Corps, through the Waterways Research and Experiment Station in Vicksburg, Mississippi, will probably come to the opposite conclusion given the requirements of Section 404 guideline regulations from EPA (see Chapter 2). However, even with this latest support of visual-cultural-values consideration in decision-making, there is a prevailing climate of minimizing agency involvement in private business transactions. This means that any visual-cultural assessment method must be cost effective and timely and be amenable to private corporate use as well as to agency use. Overly complex methods will not survive this decision-making climate.

The Need for Field-Expedient Methods

Besides the general climate of minimizing complexity in decision-making is the issue of field-expedient methods. Many decision-makers do not have access to computers, elaborate visual simulation hardware, or even detailed photogrammetric maps of wetland areas. Thus field-expedient methods are needed. When resources are limited, the best available method based on sound research and practice should be used. This is why field-rating procedures and the visual impact checklist were included in this book. These techniques can be used to aid in visual impact assessment of proposed changes to wetlands and other landscapes. Likewise, Palmer demonstrated in Chapter 5 how perception-testing methods can be used with com-

munity involvement of town residents. Burgess in Chapter 7 demonstrated how visual-cultural attributes of wetlands can be mapped easily with minimum data and graphic sophistication.

Toward the Practicum of Feasibility

The previous discussion leads us to the proposition that there are visual-cultural assessment methods of differing levels of complexity and expedience. These same methods that are used to assess, map, and evaluate visual-cultural values of wetlands have varying properties of reliability, validity, and generalizability. The practicum or general procedural rule can be postulated that more complex methods that yield higher levels of reliability, validity, and generalizability should be used in controversial situations or where there is high risk of long-term significant visual-cultural impacts. Perhaps in cases where controversy and environmental risk are less, field-expedient methods could be used. The analyst should consider the probability of contributing to cumulative visual-cultural impacts when adopting the latter strategy.

Future Research Needs

So little substantive research concerning visual-cultural values of wetlands has been done that there is no cohesive fabric of knowledge: there are only gaps. In-depth studies have been done only for portions of the northeastern United States, the far South, and the West Coast. To the author's knowledge, no comparable studies of visual-cultural values for wetlands have been done in the Midwest prairie pothole region or in the interior Western states. Penning-Rowsell has reviewed existing studies in the United Kingdom. Most of these are professional assessments of wetlands.

Future studies need to assess the perceptual and behavior-derived dimensions of the visual, recreational, and educational values of wetlands as well as the physical attributes correlated with values. These physical attributes can then be managed to preserve or protect visual-cultural quality. Future studies also need to look at the interaction of visual, recreational, and educational values of wetlands as well as the more dynamic aspects of visual-cultural values. Some key questions need to be answered: What ecological processes can contribute to the aesthetic experience of the wetland? To what degree is the presence of wildlife correlated with the overall wetland experience when measured against more static elements, such as landform, vegetation, and water? How quickly do different wetland types change physically such that the desired visual character of the type changes?

Visual-cultural studies should be sensitive to the local or regional history contributing to wetland values. Are traditional waterfowl hunting values evolving toward nonconsumption-oriented wildlife values? Regional differences with respect to the role that wetlands play in the landscape should be carefully assessed. For instance, what is the visual role of prairie potholes in the context of the Great Northern Plains landscape? What is the role of the wetlands associated with saline lakes in the Great Basin? Unless we look at the regional landscape context, we may slowly lose major ingredients in the character of the landscape without even knowing it.

And that raises the most crucial question: How soon can we know about key attributes of national and international visual-cultural landscape heritage before it is gone and before future land-use options are forever foreclosed?