The risks were enormous. As Bill Robertson remarked with regard to the handsomely mounted genetics meeting held earlier the same year, "What if we gave a conference and nobody came?" It almost happened, too.

But amazingly, at the last minute, nearly 100 men and women from all over the country dug into their own resources and arrived in Washington. They spent three days listening to papers, engaging in discussions both inside and outside the sessions, and considering the past and future of the enormous body of natural and cultural resources that reside in the world's parks and other protected areas.

Among the participants were George Wright's daughter, Pamela Lloyd, and her daughter, Jean Lloyd. George Wright spent very little time and energy in dreaming. He lived and worked his dream, and the scientific foundation he laid was solid. Today that foundation is ready for a new construct. The natural and cultural scientists who met in Washington discerned two urgent needs—synthesis and outreach. Their call was first of all for better information flows between the cultural and natural scientific worlds. Beyond that, they sought effective use of park resources to inform the public of the value of these resources and of how the fate of society itself is linked to these values and to human appreciation of them.

The two workshops' recommendations follow. They represent an agenda for the next three years and a pattern for building the 1985 conference.

Jean Matthews

RECOMMENDATIONS

From the Cultural Resources Workshop:

The cultural resources workshop group process began with an introduction of the working group members: Douglas H. Scovill, Chief Anthropologist, NPS Washington office; Laura Beaty, National Parks and Conservation Association; Robert J. Kapsch, Chief, Historic American Buildings Survey; J. Revell Carr, Director, Mystic Maritime Museum; Robert Z. Melnick, Department of Landscape Architecture, University of Oregon; Harry W. Pfanz, NPS Retired; Jim Welsh, National Parks and Conservation Association; George Church, Washington's Birthplace, Virginia; Wendy W. Wanchak, National Parks and Conservation Association; Donald C. Jackson, Senior Historian, Historic Engineering Record; Daniel J. Lenihan, Chief, NPS Submerged Cultural Resources Unit in Santa Fe, New Mexico; and Jim Judge, Chief, NPS Division of Cultural Research in Albuquerque, New Mexico.

Identification of the group objective included a discussion of the conference charge by Theodore W. Sudia, former NPS Chief
Scientist: the responsibility to decide where we go from here as a society and as practitioners of our disciplines. Harry Pfanz reviewed the charter goal "to foster improved interdisciplinary cooperation," and Doug Scovill identified the relationships between cultural and natural spheres of science. The group agreed that their objective was wise natural and cultural resource management that ends the artificial dichotomy of "natural vs. cultural" resource management and instead applied the available wisdom from all disciplines.

Because any healing of the breach involves communication, a large portion of the meeting dealt with interdisciplinary information flows. It was pointed out that few interdisciplinary resource management studies exist—the history of technology being one of the few examples of this genre.

A distinction was made between interdisciplinary communication and interdisciplinary research, with the accent on the former. This was agreed upon as a prime GWS goal. Journals that focus on such communication are almost nonexistent. The suggestion was made that GWS FORUM articles be presented with commentary that increases discipline sensitivity—perhaps cultural articles could be accompanied by natural science commentary and vice versa.

The technical jargon problem came up for discussion, and produced the following conclusions: that discipline languages should be internally consistent, that different disciplines should tackle the problem of their different understandings of the same words, that work should be done to heighten sensitivity among the disciplines for the value and impact of one another's work, and that the urgent need still exists to communicate all kinds of research to the managers whose handling of the resources is of utmost concern.

The group suggested the FORUM deal with "conceptual melding"—articles on techniques, models, and concepts that bridge different disciplines engaged in cultural and natural resource management studies. An example given was that of "historiography," a school of history which emphasizes a three-layer approach covering (1) natural history, (2) large scale movements of people, and (3) historic particulars.

And finally, the group addressed itself to the next triennial meeting of The George Wright Society. In order to orient the next meeting more directly toward interdisciplinary communication, the group recommended the following:

1. a rapporteur approach, with natural science papers critiqued by cultural rapporteurs and vice versa;
2. a referred paper system;
3. preference for papers that address multiple disciplines;
4. care to see that specific areas of application are addressed so that the advantages of the multidisciplinary approach
can be sharply etched: such foci as the redwood logging industry in California, the iron industry in Appalachia, etc.

5. avoidance of separation of cultural and natural sessions, such as took place at this conference.

A more specific set of recommendations was forged at the end of the session, most of which dealt with the subjects discussed above. In addition, it was recommended that strong national leadership be exerted to recognize underwater cultural resources as national assets, that greater awareness of maritime history and specialists be encouraged within the National Park Service, and that the Society recognize a need for greater awareness of more recent technological history.

As its final act, the cultural resources workshop recommended to the GWS membership "that the Society establish a Code of Ethics for its members and that this code strongly emphasize the responsibility of the cultural and natural science professional to represent and argue forcefully on behalf of proper and appropriate methods for resource conservation, preservation and protection."

**RECOMMENDATIONS**

**From the Natural Resources Workshop:**

The common thread throughout the meetings is that the Society should serve as a focal point for interdisciplinary communication, to give us new and better perspectives on the interrelationship between human society and the natural resources, past and present. The Society should help us obtain a long-range view of the past so that we can understand how the conditions we see today developed. This perspective will make it possible for us, as custodians of the natural and cultural heritage, to approach the future with intelligence and confidence.

The natural resources group recognizes that conservation must acquire new dimensions; it must be shown to be relevant, in fact essential, to the spiritual and material well-being of people.

Protected area managers will continue to be faced with new and growing challenges, which will require them to rely even more strongly on the interdisciplinary perspective that comes from the interplay of the natural science, social science, and cultural resource disciplines.

Protected areas exist as part of complex biosocioeconomic systems, which have evolved through the years under the increasing dominance of human beings. The George Wright Society can help the land manager explore and understand these relationships and help him put this knowledge to work to develop better management techniques, more effective policies, and the broad base of public
support that will be needed if protected areas are to survive in the decades ahead.

Invited participants in the natural resources work group consisted of John Peine, Director of the Uplands Laboratory, Great Smoky Mountains NP; Stanley Krugman, Chief of Timber Research, U. S. Forest Service; Hugh Harwell, Natural Heritage Program Coordinator, Bureau of Land Management; Roy Johnson, NPS Cooperative Studies Unit, University of Arizona; and myself, Bill Gregg. About 30 persons attended the workshop and contributed to the wide-ranging discussion of management philosophy, policy, and strategy. Out of this, the following recommendations for the GWS mission were constructed:

1. Provide a forum improving communication between natural scientists, social scientists, and cultural resource specialists.
2. Serve as a catalyst for building professional relationships at the local, regional, and international levels.
3. Encourage the broadest possible participation by individuals representing different agencies and institutions, providing free exchange of viewpoints and exploration of opportunities for collaboration on problems of common interest.
4. Provide the interdisciplinary perspective needed to develop a strategic approach for protecting and managing our natural and cultural heritage in the modern age.
5. Give visibility to the importance of science in management, and particularly to the usefulness of long-term monitoring in developing the perspectives needed for informed management.
6. Provide a forum for promoting the results of interdisciplinary research involving natural and social sciences (e.g., an importance of historical land use in present day management, use of plants and animals by various cultures, interdisciplinary analyses of success and failure in policies, programs, and strategies).
7. Help managers set appropriate management objectives through an understanding of the historical relationships between human cultures and natural ecosystems (e.g., what is the pre-Columbian condition and is it realistic to try to reestablish this condition?).
8. Provide a focal point for finding ways to build broader constituencies by demonstrating the relevance of protected areas to peoples' lives (e.g., through better public communication, demonstration of how human societies of the past and present depend on natural resources for the essentials of life and for progressive advancement; demonstrating the role of the communications specialist in management, showing the relevancy of conservation to the urban dweller.
9. Serve as an advocate for laws, policies, and programs which promote the value of protected areas to society or the effectiveness of their management (e.g., establishment of biosphere reserves, research natural areas, experimental
ecological reserves).

Let me add that I think the involvement of the Society in sponsoring major interdisciplinary workshops and symposia, such as the recent one on the applications of genetics in the management of wild plant and animal populations is particularly important if the Society is to develop a reputation among protected area scientists and managers.

...Bill Gregg, Chairman, Natural Science Workshop

I know of no safer depository of the ultimate powers of the society but the people themselves; and if you think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion.

Thomas Jefferson
September 29, 1820