

Interpretive Views

Edited by Gary E. Machlis



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*Opinions on
Evaluating Interpretation
in the
National Park Service*

Edited by
Gary E. Machlis



National Parks and Conservation Association
Washington, D.C.

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Cover: Crystal Falls on Cascade Creek, Yellowstone National Park, preliminary sketch by Thomas Moran, Circa 1871, courtesy National Park Service Photo Archives.

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Dedication

To Jim Tobin (1924-1985), who shared his love of the national parks, his respect for the National Park Service, and his enthusiasm for interpretation.

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FOREWORD

When the first national park was established at Yellowstone on March 1, 1872, all that could be loosely defined as an interpretive program for future visitors was the report from the 1870 expedition that discovered the site. Old Faithful geyser had barely been named, and the National Park Service was as yet unformed, so how could the park's geologic phenomena be interpreted to the public? The effectiveness of such interpretive programs as later emerged could have been evaluated only by the "oohs" and "ahhs" of visitors and postcard readers.

Park interpretation has come a long way since that time. Hundreds of national parks have since been established, and each one has an interpretive staff, professionals armed with extensive training and often with degrees in biology, paleontology, or American history. Interpretive programs range from sophisticated, multi-media events to more subtle, hushed commentary on a dawn canyon walk.

The National Park Service has at its disposal years of accumulated experience with natural and historical resources as well as with the most modern techniques for educating groups of visitors. The result has been that Americans hold the park ranger in highest regard, and value and look forward to interpretive programs whenever they visit a national park. This relationship between interpreter and visitor, in turn, generates broad support for parks throughout the nation, and helps make the National Park Service one of the country's more popular federal bureaucracies.

As I write this, the field of interpretation is entering a new phase. Having developed the art of interpretation to a high degree, the Park Service is increasingly stepping back and looking at the science of evaluating interpretation. What and how to interpret the parks to the public, and which individual programs are effective, rank high among the questions most debated by park interpreters and administrators. Spending decisions hinge on this debate, making it a crucial issue in park policy.

In response to this debate, Dr. Gary E. Machlis, Sociology Project Leader of the National Park Service Cooperative Park Studies Unit at the University of Idaho, began to solicit a wide range of opinions on the subject

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of evaluation of interpretation. The result was an enthusiastic flow of papers and essays giving diverse, stimulating ideas on the subject.

In order to share these views and stimulate further discussion, Dr. Machlis has compiled these essays in book form. The result is *Interpretive Views*, an important exercise in policy debate, and an open approach I enthusiastically advocate.

Such a broad range of authors as Machlis has selected — from concessioners to academicians, from park administrators to park advocates — provide a cross section of popular thought on this important subject that will no doubt fulfill the editor's intent.

Interpretive Views is a welcome addition to the growing body of professional literature dealing with evaluating interpretation. I urge each of you to join in the professional debate this volume is designed to stimulate. Not only will interpretive staffs and park administrators find this book an essential tool, but students in training for park work would do well to review these essays for an introduction into current thought on this important issue.

I applaud Dr. Machlis and the other contributors to this book for sharing with all of us their most current insights and diverse opinions on this crucial professional issue. I appreciate the National Parks and Conservation Association's support of this project. All have performed a valuable service to the NPS by making their ideas available to us. The National Park Service, and the general public it serves, can only benefit from such open discussion as is embodied in *Interpretive Views*.

— William Penn Mott, Jr., Director
National Park Service
U.S. Department of the Interior

Preface

Evaluation of interpretation is an increasingly important issue for the National Park Service (NPS) and its related interest groups, including the National Parks and Conservation Association (NPCA). The emerging importance of evaluation is partly the result of a broader social trend toward fiscal austerity for public services, as all government programs are being scrutinized by the American public. The NPS and its interpretive programs are not immune from this demand for cost-effectiveness. The issue for the NPS is how best to respond. How should NPS interpretive programs be evaluated? Should they be evaluated at all? By whom and for what purpose? These questions deserve attention, and that is the first reason for this book.

The second reason revolves around disagreements over the issue of evaluating interpretation, and the many conflicting opinions on the questions just asked. This whole area of uncertainty became clear to me one bright, crisp October evening on the porch of the Superintendent's house at Wind Cave National Park. Being a sociologist, I asked questions of the park professionals who were relaxing there. "But how can you *tell* when an interpretive program is very good?" I asked. "That's easy," someone replied; "It is *not*," someone else answered, and a vibrant debate began that lasted far past the Dakota sunset.

Gradually I realized the diversity of views on evaluating interpretation, and how deeply held were the opinions that supported these views. This book is an attempt, in only a slightly more formal way, to bring the reader into that wonderful porch-front debate. Its main purpose is to share various viewpoints on evaluating NPS interpretation.

The reader may benefit in other ways, too. The essays that follow provide special insight into the philosophies that currently (or potentially could) guide interpretation in the National Park Service. In sharing their opinions on evaluating interpretation, most of the authors had to confront and then describe what they thought interpretation was all about. For the reader interested in the vocation — the rationale for interpretation — there is much to learn from these contributions.

Another benefit is that those in search of ideas for evaluating their own

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interpretive programs will find constructive suggestions, examples, and resources for conducting evaluation efforts. The book is not, however, a textbook on how to evaluate interpretation — and several of the authors reject the idea of evaluation out of hand.

I hope these essays may stimulate changes in NPS policy. It seems unfortunate that NPS management holds interpreters accountable for cost-effective, well-crafted programs, and yet has neither a coherent policy for evaluating interpretation, nor any well-tested techniques for doing so. If the book can stimulate a thorough discussion of NPS policies toward interpretation, then the efforts of the authors will be well served.

Finally, there is the simple benefit of knowing what your neighbor is up to. The authors include park managers, school teachers, concessioners, professors, artists, scientists and, of course, interpreters. They represent the widest possible range of experiences — from an elementary school principal in South Florida to a recently retired NPS regional director in Alaska. All have an interest in interpretation and an enthusiasm for the National Park Service. Reading their essays, one can get a sense of the diverse ways in which Americans approach their national parks, and the single-mindedness with which we treasure them. Some of the essays are serious, others playful; some adapt a careful, measured tone, others are strident. All offer useful insights.

Interpretive Views is divided into seven parts. The first part, “The Setting,” provides a basic introduction for what is to come. It includes “Evaluation and Interpretation: A Literature Review,” important, for its detailing of what is known about evaluation in general, and about the evaluation of interpretation in particular. If the NPS is to systematically evaluate its interpretive programs, it can ill afford to “reinvent the wheel” or to create social-science fiction. The review includes many references, so the reader interested in learning more can find original sources.

Parts Two through Six are the central core of the book. They consist of twenty-two essays on evaluating interpretation. Each Part reflects the point of view of the authors, the first group being from the parks. This viewpoint is critical, for it is closest to the action, that is, the daily interpretive programs and visitor contacts. Any policy concerning evaluating interpretation will affect the parks first and foremost. Authors include superintendents, chief naturalists, and field interpreters.

The second viewpoint is from the office, and the regional and national offices of the NPS are well represented. The fact that most of these professionals have spent many years in the parks is an added benefit. The third set of views comes from the universities, for these are the training grounds for future interpreters and the sources of most research on interpretation.

A fourth viewpoint is provided by concessioners. Increasingly, the pri-

vate sector has become involved in interpretation, and enlightened concessioners have seen interpretive programs as complementary to the other visitor services they provide. Their views are important for, like the field interpreters, they are close to the visitor.

A final viewpoint is from the outside, and the essays here come from a wide range of citizens who have informative insights into interpretation in the National Park Service. Since it is the American public that is the ultimate judge of the NPS and its performance, the views of outside interest groups and knowledgeable visitors deserve a thoughtful reading.

After these views are presented, the book concludes with Part Seven, "Toward a Policy for Evaluating NPS Interpretation." Among the essays in previous sections, there are points in common and areas of sharp disagreement, and an effort is made here to critically review the essays and to synthesize what has been said. Implications for policy are discussed.

Several individuals have been especially helpful in preparing *Interpretive Views*. Bill Sontag has expressed a consistent support for the project, and his enthusiasm for a wide and varied forum is appreciated. Dave Dame, and the Division of Interpretation, Washington, D.C., have supported our research on interpretation, and Dave's interest in this different kind of effort is thankfully acknowledged. The National Parks and Conservation Association and, in particular, Destry Jarvis, have provided critical support for *Interpretive Views*, and Destry's interest and patience has been helpful.

Each and every author deserves a special thanks, for to prepare their essays within the schedules they follow required a special dedication and concern. Jean Matthews gave each essay a subtle editing, no small task given the range of writing styles with which she was confronted. Joan Klingler organized and managed the project with care and efficiency. Marjorie Corbett of Shade Tree Associates carried the manuscript to finished book with skill and enthusiasm. And to those who participated in that porch-front debate, thanks for the idea.

— Gary E. Machlis
Moscow, Idaho
June, 1986

Part One

The Setting

Chapter 1

Social Program Evaluation And Interpretation: A Literature Review

Sam H. Ham

Sam Ham is Associate Professor, Department of Wildland Recreation Management, College of Forestry, Wildlife and Range Sciences, University of Idaho. He is an active member of the National Audio-Visual Association, the National Association for Environmental Education, the National Wildlife Federation, and the Idaho Environmental Council. Dr. Ham is co-editor of the Journal of Interpretation.

This chapter reviews the literature on evaluating interpretation in parks, forests, museums, and other settings in which interpretation takes place. The focus is on evaluating *interpretation*, not *interpreters*. We will therefore be concerned with measuring and charting the achievements of interpretive services and programs, but not necessarily with the actions, mannerisms, and communication styles of individual interpreters, though the two are frequently related. For purposes of this review, the term “evaluation” means:

the process of collecting and analyzing information about a social program, its audience, or its impacts on an audience for the explicit purpose of improving its ability to serve the audience in intended ways.

Evaluation may be further distinguished from other research activities by its

focus on *judgements* about program effort, effectiveness, efficiency, and adequacy, its reliance on *systematic* methods, and its *applied orientation* to management and decision-making (Attkisson and Broskowski 1978).

The problems of evaluating interpretation have begun to receive serious attention from both practitioners and researchers in the interpretation field. Recently, attempts to produce factual, comprehensive, and understandable evaluation guides for interpreters have appeared (e.g., Hodgson and Fritschen 1984, Hodgson 1984, Roggenbuck and Propst 1981), and a number of writers have urged interpreters to routinize evaluation of their programs (e.g., Evans 1983, Murphy and Verardo 1983, Hodgson 1979, Moses et al. 1977). Along with this welcomed attention have come questions, some old and some new, about what interpretation should be trying to accomplish, when it is "effective," and how it can or should be evaluated. Literature on these diverse topics is growing, and the purpose of this essay is to draw some of it together, along with the literature on social program evaluation, as an aid both to interpreters in search of ideas for evaluating their programs and to researchers faced with the need to know what has gone on before.

The essay begins by reviewing opinions on the need to evaluate interpretive services, followed by a brief historical sketch of social program evaluation. The purpose here is to show the historical roots of systematic evaluation, and to suggest that evaluating interpretation is simply a special case of a broader problem; evaluation precepts and procedures are well established in literature outside of interpretation, and examples of this literature will be given. This discussion is organized around four major topics in the evaluation literature: (1) kinds of evaluations, (2) when to evaluate, (3) how to evaluate, and (4) evaluative criteria. Questions about defining "effectiveness," writing objectives, collecting information, and selecting criteria for evaluations will be addressed.

Why Evaluate Interpretation?

Although disagreement may exist, the need to evaluate interpretive effectiveness is well established. Putney and Wagar (1973) argued that systematic evaluation of interpretive efforts was a necessary step toward unifying interpretation with other agency functions. They pointed out that visitor information programs must be designed and implemented in concert with broad agency policies governing the mission and overall intent of that agency. Thus, they saw interpretation not as an autonomous information function, but rather as part of a larger scheme of management. In their view, evaluating interpretation's contribution to this scheme would determine its effectiveness and provide insights into needed improvement.

More recently, Roggenbuck and Propst (1981) and Propst and Roggen-

buck (1981) have outlined several reasons why evaluation of interpretation is needed by public agencies:

1. Present austerity has heightened public awareness of government spending, and increasingly agencies are required to demonstrate the cost-effectiveness of their programs;
2. Within agencies, different administrative units vie for limited operating funds. Showing measurable benefits of an interpretive program provides a competitive edge in the budget race;
3. Evaluation programs require periodic scrutiny of interpretive objectives to ensure that interpretive objectives reflect changes in agency mission, management policy, or political climate; and
4. Evaluation provides feedback about individual interpretive services and the program as a whole.

Decisions about upgrading, updating, deletion, and addition of interpretive services become easier when the relative accomplishments of the services are known. Similarly, objective evaluation of interpretive staff can reveal insights into training needs and hiring priorities (Hodgson 1984, Ham and Shew 1979).

Perhaps the most recurrent question in the interpretation literature is "What is effectiveness?" How does one distinguish between effective and ineffective interpretation, and how does one know when effectiveness changes? At one level, these are questions for philosophers such as Freeman Tilden, who urged interpreters to search for the gleam in a visitor's eyes (Reyburn 1977), and others who have hinted that the qualities of good interpretation are felt so deeply and personally by interpreters that they defy objective measurement: "When it's right, you just know it."

At a different level, however, these questions about "effectiveness" must also be addressed by managers, administrators, and policymakers; at this level, counting "gleams" and personal convictions, no matter how surely they might indicate good interpretation, will not forcefully argue interpretation's place in management nor in the budget (Callecod and Gallup 1980). According to many writers (e.g., McDonough 1979, Knudson and Morfoot 1979, Callecod and Gallup 1980), other indicators of effectiveness must be added if we are to achieve the level of systematic evaluation.

In a report to the National Park Service, Moses et al. (1977) pointed out that although informal evaluation of interpretive services is "as old as interpretation itself," it has not allowed managers to determine whether interpretive programs actually produce intended outcomes. In their view, this has hampered efforts to increase interpretation's role in park management and has relegated to "faith" interpreters' convictions about the overall worth of their services. According to many (e.g., Bernard 1977, Wagar 1978, Roggenbuck

1979, Hodgson and Fritschen 1984) this is a major obstacle to defending interpretation's place in today's budgets. To some (e.g., Callecod and Gallup 1980), this reasoning suggests the need for objective data on actual accomplishments. To this end alone, according to these writers, evaluation is urgently needed.

Evaluating Social Programs: Historical Background

Planners, administrators, and program implementers, from the earliest days of social programs, have been confronted with a continual need to choose between the status quo and alternative new directions. Decisions usually were based on subjective impression; hence they varied widely (Sze and Hopps 1974). Coincident with the growth of social research methods, however, came a concern for *systematic* evaluation of social programs. The term *systematic* implied that accomplishments of a program could be objectively measured and that the success of the program could be charted over time without bias or political subjectivity. According to Rossi et al. (1979), professional awareness of this need arose in such fields as education and public health as early as the turn of the century. By the 1930s, serious attempts to systematically evaluate social action programs were under way in several fields (e.g., Stephan 1935, Freeman 1977).

During the late 1930s and throughout the next three decades, evaluations of programs in communication (Hovland et al. 1949), delinquency prevention (Hirschi and Selvin 1967), worker productivity (Roethlisberger and Dickson 1939), and other areas in social work (Polansky 1960) became commonplace worldwide. Gradually, program evaluation emerged as a bona fide specialty within social science fields, and by the 1960s textbooks appeared (e.g., Suchman 1967, Campbell and Stanley 1966), and university courses in evaluation methods were being offered.

Today, evaluation is seen as an inseparable part of program planning and decision-making. In many fields (e.g., medicine, food and nutrition, and nuclear energy development), laws require carefully specified evaluations before widespread distribution of materials or implementation of procedures is permitted. Often, federal funding for major programs in education, health, and agriculture hinges on whether periodic evaluations are included as a part of project proposals. Clearly, improvement of public services through social action programs is an important goal, one that depends on orderly planning and rational allocation of program resources (Weiss 1974). It is here, according to many writers, that systematic evaluation must prevail over intuition and subjective judgement in the decision-making process. As Epstein and Tripodi have argued:

... sound professional practice requires that program administrators be more rational and objective in planning, monitoring, and evaluating their programs. Research facilitates rationality; it provides information that is essential for responsible administrative decision-making. (1977:1)

Arguments for systematic evaluations of social programs also are based on politics. In fact, Coke and Hansan (1974) have suggested that the entire process of evaluation — its structure and procedures — is meaningless outside of its role in political decision-making. Policymakers may be quite sensitive to the concerns of those organizations whose support is critical to their jobs, and to “watchdog” groups (e.g., Common Cause) who conduct their own evaluations of the effects of social policies. As Berk and Rossi (1976) pointed out, it is because of such political realities that policymakers themselves, rather than academicians, are at the forefront of those demanding accountability of social programs through systematic evaluation.

Evaluators of interpretation have distinct advantages over professionals in other fields who much earlier seized the idea of systematically measuring the success of their programs. They come to a field rich with half a century of procedural refinements and an enormous amount of literature on methods of program evaluation. Limitations of time and funding also have been reduced due to the advancement of inexpensive measures (e.g., Webb et al. 1966, Peine 1984) and to an increasing number of publications on evaluation and measurement for nonresearchers (e.g., Epstein and Tripodi 1977, Collins et al. 1969). Except for the settings in which interpretation typically occurs, there is little to suggest that evaluating interpretive services should differ from evaluating other social programs. The task for interpreters, it would seem, is to borrow what can be borrowed from the larger situation and apply it in the special circumstances surrounding their own programs. What this might entail and how it might be applied are subjects of the remainder of this essay. The purpose of the next section is to discuss major considerations in social program evaluation. The intent is to highlight generic concerns that may have practical significance for evaluating interpretive services.

Major Topics in Social Program Evaluation

Throughout the evaluation research literature, four topics applicable to interpretive evaluation repeatedly emerge:

1. kinds of program evaluations,
2. when to evaluate,
3. how to evaluate, and

4. kinds of evaluative criteria.

Though the list of topics may understate the complexities of social program evaluation, it provides a useful framework for this review. Readers interested in more detailed analyses are referred to evaluation research texts such as Rossi et al. (1979), Weiss and Bucavalas (1980), and Weiss (1972).

Kinds of Evaluations

Evaluations can be classified according to the types of questions they address or the methods they utilize. A common classification is Rossi et al.'s (1979) scheme, which suggests four major areas on which evaluations should focus: program planning, program monitoring, economic efficiency, and impact assessment (see Table 1). In interpretation, the word "evaluation" usually means assessing program accomplishments (after the program has ended); Rossi et al.'s typology reminds us of other questions, some in need of answers before program implementation, others during and after implementation. Following is an explanation of each of the four kinds of evaluation with examples of how they have been applied in evaluating interpretation.

Program Planning Evaluations

Program planning evaluations generally are conducted *before* a program is implemented, to assess whether a proposed program is actually needed, or to determine the size, distribution, or other characteristics of the target audience and whether the program is designed to produce intended outcomes relative to that audience. Generally, the purpose is to verify the nature or extent of a suspected problem before time, energy, and funds are spent on a program to ameliorate it (Rossi et al. 1979).

In interpretation, program planning evaluations provide information for designing an interpretive program to address some specific problem. Szwak (1984), for example, collected information on visitor characteristics, visitation patterns, and visitor activities with the aim of improving interpretive planning in three national parks. Her results suggested that both composition and behavior of the audience changed during each day and throughout the week. Interpretive programming also could change to accommodate temporal differences in the visitor population. Other studies have developed planning implications from data on visitors' expectations (e.g., Blahna and Roggenbuck 1979), visitor characteristics and behavior (e.g., Palmer and Zube 1980), and visitors' patterns of participation in interpretive services (e.g., Mullins and Hanna 1981). McDonough (1984) has outlined three broad categories of information that might be helpful to interpretive planners: visitor characteris-

Table 1. Four types of program evaluation (adapted from Rossi et al. 1979)

<u>Type of Evaluation</u>	<u>Examples of Questions Addressed</u>
1. Program planning	Does the suspected problem really exist? What are the characteristics of the target audience and can the program be designed to reach the audience and produce intended results? What are the needs of the target audience and is the program designed to address these needs?
2. Program monitoring	Has the program been implemented as planned? Is it reaching the intended audience? Is it providing to the audience intended services? Is the program reaching sufficient numbers of the target audience?
3. Economic efficiency	What are the costs to provide the service and how do they compare to actual benefits produced? Is the program an efficient use of resources compared with alternative uses of the resources?
4. Impact assessment	Once implemented, does the program produce intended benefits? Does it impact target audiences in intended ways? Does the program produce effects which were not intended?

tics, visitor attitudes, and visitor motivations and expectations. In her view, such data are needed not only *before* a program is implemented but throughout the life of the program. Rossi et al. (1979) refer to ongoing evaluation of this type as “program monitoring,” which is discussed next.

Program Monitoring Evaluations

Program monitoring evaluations are conducted *during* the implementation stage of a program to determine whether the program is reaching target audiences, and whether it is providing to them intended services. According to Rossi et al. (1979), this is tantamount to asking whether the program has, in fact, been implemented since it cannot benefit target audiences it never reaches. For example, a problem common to most interpretive programs is

attracting to activities and facilities sufficient numbers of visitors to justify continuation of services. Today, number of visitor contacts is a well-established criterion for budget decisions, and interpreters are increasingly required to defend their programs on the basis of attendance figures. Evaluations of this type (e.g., Knudson and Reyburn 1980, Knudson and Vanderford 1980) are an obvious application of program monitoring, though as Edwards (1976) has argued, attendance figures alone may be a misleading criterion for interpretive evaluations.

Another application of program monitoring is determining whether the visitors who participate in interpretive services are the *kinds* of visitors the program was intended to attract. For example, a growing body of evidence indicates that participants in interpretive services may represent a select, sophisticated segment of the user population. Compared to nonparticipants, they are often more highly educated, more used to going to parks, more knowledgeable about park activities, and more experienced at attending interpretive events (e.g., Mullins 1980, Palmer and Zube 1980, Tai 1981, Ham 1982). As Lewis (1983) contended, such audiences may not represent the visitors many interpretive programs were designed to serve. Periodically monitoring audience characteristics may help to determine whether this is true, and if so, may suggest program changes or publicity efforts to attract greater proportions of the target audience. Examples of this kind of program monitoring can be found in McDonough (1984), Hanna and Silvy (1978), and Field and Gramann (1977). Similarly, monitoring of program content, media, scheduling, and geographical distribution can indicate whether the program has been implemented as intended. Procedures for this kind of monitoring have recently been developed for the National Park Service, and summaries can be found in Van Every (1983), Machlis et al. (1983) and Ham et al. (1984).

Economic Efficiency Evaluations

Government agencies are increasingly called upon to show the benefit-cost ratios of their programs and services. Benefits of interpretive programs frequently elude measurement, making benefit-cost assessment impractical or difficult at best. However, Reyburn (1977) has suggested several variables that may serve as proxies (or indicators) for actual benefits. He proposed a hierarchy consisting of cost inputs to be paired with a range of outputs (benefits) including:

1. number of services offered,
2. number of visitors contacted,
3. audience reactions, and
4. impacts on audiences.

According to Reyburn, expressing each of the outputs as a ratio to costs could provide reasonable indication of economic efficiency. Examples of cost inputs both for facilities and personal interpretive services can be found in Wagar (1982) and Knudson and Morfoot (1979). Sorensen and Grove (1978) contains a detailed review of cost-benefit and cost-effectiveness evaluation methods, including selection of indicators, measurement of costs and benefits, and procedures for determining the reliability and validity of selected measures.

Impact Assessments

Impact assessments determine whether programs have achieved their *intended* purposes, and whether they have produced any *unintended* outcomes. Examples of intended outcomes might be increased visitor knowledge, heightened interest, enjoyable experiences, or behavior changes. Hodgson (1984) has classified interpretation goals as dealing with:

1. how people think,
2. how people feel, or
3. how people behave.

Having developed performance objectives corresponding to one or more of these goal categories, an interpreter could assess the impact of a service or program by measuring actual accomplishments and comparing them to intended performance levels as stated in the objectives. For example, if an objective of an interpretive service was to increase audience knowledge of raptors by ten percent and to reduce audience littering by fifty percent, before and after measurements of both knowledge and littering would provide an indication of whether the service was having its intended impact on the target audience.

Besides intended outcomes, impact assessments may also reveal outcomes that were not intended (Weiss 1974). In interpretation, these could be "extra benefits," such as good press or letters of praise from visitors to administrators. Unintended outcomes could also be undesirable, as when teenagers get the idea to put detergent in a geyser after hearing a related anecdote at the previous evening's campfire program, or when visitors complain about too many rules and regulations — information typically acquired through interpretive services.

Not surprisingly, much of the literature on evaluating interpretation has stressed impact assessment, that is, the degree to which interpretive efforts produce their intended outcomes. However, no known attempts have been made systematically to record unintended outcomes, and little has been published regarding evaluations of program planning, program monitoring, or

economic efficiency. Preoccupation with impact assessment is not necessarily bad, but as Rossi et al. point out:

Impact evaluation without knowledge of what took place can fault a vital program and result in poor policy decisions. Too often, impact evaluations without prior evidence of implementation conclude that programs are ineffective. Yet, in fact, the real reason for lack of impact is that the program has not been tested and properly evaluated, and the possibility that the intended program may offer significant solutions to human problems remains unexplored. (1979:46)

Several authors give examples of programs falsely deemed ineffective by premature impact assessments (e.g., Rossi and Wright 1977, Williams and Elmore 1976). An impact assessment is premature if the program being evaluated has never been implemented as planned (i.e., has not reached the target audience or is not delivering intended services). For this reason, Rossi et al. (1979) see program monitoring evaluations as critical partners to impact assessments.

For example, after having determined that an intensified effort to interpret boating safety is needed, a manager might decide on the specific safety messages to be communicated to visitors, as well as the interpretive media to be used. Suppose it was decided that the following two messages about personal flotation devices (PFDs) should become a part of all campfire program introductions:

1. PFDs save lives every year here, and
2. The law requires boats to have one PFD for every passenger.

A program monitoring evaluation might then be devised to determine whether audiences at campfire programs actually were getting these messages. In this case, unannounced audits of campfire programs might be used to see if interpreters were implementing the safety-awareness program as planned. An impact assessment, of course, would address whether the messages and medium were effective in increasing the number of people wearing PFDs. If interpreters were not giving campfire program audiences the intended messages, no doubt an impact assessment would find the safety program ineffective, without taking into account the fact that the program never was implemented.

When to Evaluate

Commenting on obstacles to meaningful evaluation of social programs, Carol Weiss advanced an argument widely agreed upon in the evaluation research literature:

One of the pervasive problems with most past evaluations has been that they have been one-shot affairs. The evaluators come in, do a study of more or less elegance, and after their work is over, depart. But what about the rest of the time? Decisions still have to be made on a pretty regular basis on all kinds of matters — from policy questions regarding allocation of resources down to the nitty-gritty of intake criteria, staffing, hours of service, and so on. To meet continuing decisional needs, evaluative data can be built into an ongoing information system. (1974:118)

Her concern that “one-shot” impact assessments are, alone, insufficient to meaningfully evaluate human service programs has become an accepted precept in the evaluation literature; and it reflects a general concern among experts that evaluations should begin during the planning stage of a program and continue through initial implementation and subsequent refinements up until the time the program has outlived its usefulness (Attkisson et al. 1978, Rossi et al. 1979, Epstein and Tripodi 1977).

Evaluation, in other words, is seen as a process comprised of several different evaluative activities, each addressing a different, though related, set of questions. Using Rossi et al.’s (1979) typology as an example, one can see that the kinds of questions addressed by each type of evaluation also suggest their timing relative to one another and in relation to initial program implementation (see Table 1). Thus, the best time to conduct an evaluation will be dictated by the nature of the evaluation being considered.

Clearly, program planning evaluations must *precede* the design and implementation of an interpretive program (see Figure 1). Program monitoring evaluations, on the other hand, must occur *during* the implementation phase. Economic efficiency evaluations and impact assessments can be conducted any time after implementation begins, including after a program is terminated (Rossi et al. 1979). As Epstein and Tripodi suggested, evaluations of social programs represent a continuous feedback mechanism through which programs can be routinely “fine-tuned” as new information about the audience the delivery system, and the program’s impacts becomes known:

The need for such information persists throughout the life of a program, so that program planning is closely related to monitoring

and evaluation. By monitoring and evaluating a developing program, an administrator can determine the extent to which the program is serving the need to which it was originally addressed and the extent to which the need persists. Judgements can also be made about the relation between the program and changing patterns of service . . . (1977:5)

Applied to interpretation, this reasoning suggests that program planning evaluations, in addition to their assessment of the problem and indication of program needs, provide baseline data against which subsequent evaluations can be compared. Drawing upon this idea, several writers (e.g., McDonough 1984, Roggenbuck and Propst 1981) have noted the limited usefulness of “one-shot” impact assessments and the need for ongoing, routine evaluations of interpretive services. According to Roggenbuck and Propst:

Evaluation should also occur on a routine basis after the program has been developed . . . policies and goals of the agency may change, the resource may change, and the visitor may change. Any one of these changes might cause a given interpretive program to lose its effectiveness or to become inappropriate. (1981:15)

● Program Planning Evaluations	● Program Monitoring Evaluations	● Economic Efficiency Evaluations
	● Impact Assessments	
	● Economic Efficiency Evaluations	● Impact Assessments
Before	During	After

Figure 1. Timing of evaluations in relation to initial program implementation.

Often, other considerations will more precisely indicate the best time to assess the impacts of interpretation. Of primary importance will be the performance objectives guiding the evaluation. One of the required elements of a perfor-

mance objective is specification of the circumstances under which measurement is to occur (Hodgson 1984), and frequently the timing of the evaluation will be a part of this specification. For example, an objective might specify that a certain proportion of visitors will perform some behavior (e.g., obtaining a brochure which gives detailed information on a topic) following a movie in the park visitor center. Clearly, the best time to evaluate this movie is immediately after it ends.

At a more general level, the best timing for impact analyses is as early as possible once a program has been implemented (Wagar et al. 1976), and as often as possible thereafter (Roggenbuck and Propst 1981). As Wagar et al. (1976) pointed out, when an interpretive program is in the early stages of development, the "speed of evaluation is generally more important than its precision." By this they meant that early feedback about program accomplishments was valuable because it permitted changes to be made before major investments of time, money, and ego. Subsequently, ongoing feedback about the program would be important to stay current with agency policy and knowledge of the resource, and to keep the program appropriate for the audience (Roggenbuck and Propst 1981).

How to Evaluate

The question of *how* to evaluate social programs has been a subject of great disagreement both in the general evaluation literature and in the literature on evaluating interpretation. Though debates continue on appropriate statistical procedures, sampling methods, and related analytical issues (e.g., Conner 1984, House et al. 1982), the question of how to evaluate human service programs extends even deeper into the philosophical underpinnings of social program evaluation. Representative of this debate is an essay by House (1982) regarding the role of "humanistic" and "scientific" methods in social program evaluation.

Scientific and Humanistic Methods

In the first part of this chapter, I noted the historical trend from subjectivity to systematic approaches in social program evaluation. In some respects, House (1982) has argued for a partial return to earlier days. His concern is not that systematic research (scientific method) is not or cannot be valid; rather he believes that concern for scientific rigor has sometimes placed a chasm between scientific reality (numerical representations of social phenomena) and social reality. In his view, esoteric science has not only rendered "evaluation" a thing of ridicule among some practitioners and program administrators (see, for example, Young 1982 and Attkisson and Bros-

kowski 1978), it has become so bound to the idea of physical measurement that it often misses that which is socially significant, though not measurable, about the impacts of human service programs. In House's words:

In scientific evaluation the closer one comes to physical phenomena, the more likely the success of these scientific methods. The less physical and the more cultural the entity being evaluated, the less likely the success with these methods. In other words, we might apply scientific methods more wisely, realizing that they do not generate the total truth or exhaust all possibilities. We need a broader notion of social science than that which prevails among many social scientists. (1982:21)

House calls for more frequent use of "humanistic" methods in evaluating social programs, not as a substitute, but as a supplement to scientific methods. According to him, humanistic evaluation methods primarily entail narratives, not by evaluators, but by program participants, as to the nature of their subjective experiences, intentions, actions, and perceptions. Evaluating an interpretive service, for example, might partially involve open conversation with audience members about their expectations, thoughts during the presentation, judgements about the content of or circumstances surrounding the presentation, and so forth. This approach to program evaluation roughly parallels the "protocol" method of evaluating marketing campaigns (Engel et al. 1978) and is reminiscent of what Kelly (1980) has termed "collaborative interviews" for evaluating recreation and leisure programs. Similarly, the use of suggestion boxes (Wagar et al. 1976) and casual interviews (Roggenbuck and Propst 1981) to obtain feedback from interpretive program audiences suggests that humanistic methods have, to some extent, found legitimacy in evaluating interpretive services. As House (1982) admonishes, however, humanistic methods have not yet been adapted to the purposes of program evaluation to the degree that scientific methods have been. Total reliance on the humanistic approach without supportive systematic data could yield erroneous conclusions about the merits of an interpretive program. He concludes:

There are many (perhaps most) situations in which scientific methods of evaluation are most appropriate. There are other situations in which evaluators would do better with different methods or with a combination of methods. . . . Especially in evaluating the social worth of something, one must sometimes take a broader view than scientific methods provide. (1982:24)

An implication of House's argument for evaluating interpretation is that a combination of scientific and humanistic methods might yield the most complete picture of a program's worth. Following is a brief review of the range of methods used to evaluate the effectiveness of interpretive services.

Methods Used to Evaluate Interpretation

A number of reports on evaluation methods for interpretation exist. One of the earliest was Wagar's (1976) critique of twelve evaluation techniques, including direct measures of behavior, observation of audience feedback, timing of audience viewing/listening time, questionnaires, mechanical self-testing devices, time-lapse photography, and other formal and informal measurement procedures. His discussion also included prior applications of these procedures and a review of advantages and disadvantages associated with each. In a separate report on evaluation of an energy exhibition, Wagar et al. (1976) concluded that the main trade-offs in choosing evaluation methods were precision and cost. Somewhat reminiscent of House's (1982) views on supplementing systematic methods with humanistic methods, Wagar et al. proposed that volunteered comments (via a suggestion box) could help identify trends in the effectiveness of exhibits and would cost less than scientific measures such as participant observation, time-lapse photography, and surveys. They concluded that evaluating interpretation would continue to be "more art than science," but that:

With some understanding of the sources of bias and with overlapping data collection procedures as a check on any one method, managers of interpretive programs should be able to avoid the major pitfalls of using data from nonrepresentative samples of their visitors. (1976:13)

Concerned that evaluating interpretive programs should perhaps be "more science than art," a host of writers has discussed the applicability of various social research methods for evaluating interpretive services. One such discussion was Morfoot and Blake's (1979) analysis of evaluation methods and criteria for personal and nonpersonal interpretive services. They concluded that past evaluation methods have been useful but limited in scientific validity, and recommended that single-criterion measures of effectiveness be replaced with multiple measures. Drawing upon advances in multitrait-multimethod measurement (see for instance Metfessel and Michael 1967), Morfoot and Blake reasoned that if several measures of the same evaluative criterion (e.g., audience interest) provided the same evidence about the effectiveness of a service, decision-makers could have greater confidence in the findings, and

hence in their ultimate judgements about the effectiveness of that service. Similarly, Callecod and Gallop (1980) and McDonough (1984) reviewed several evaluation methods, including interviews, mail questionnaires, and unobtrusive measures, according to their ability to provide useful information about interpretive services, and Epstein and Tripodi (1977) offer a straightforward explanation of evaluation procedures for the nonspecialist.

More recently, Roggenbuck and Propst (1981) have offered a comprehensive critique of thirteen separate data collection procedures for evaluating interpretive services. They rated each of the methods according to seven criteria:

1. speed of feedback,
2. cost,
3. burden on visitors,
4. burden on staff,
5. resistance to bias,
6. overall usefulness, and
7. general limitations.

Conclusions they drew about the precision and costs of several evaluation methods are summarized in Table 2. Generally, the more precise and resistant to bias the data, the more costly the technique(s) needed to collect them; often such costs will be related to the amount of staff time required to administer or conduct the procedure. Their analysis, in basic agreement with those by Wagar (1976) and Wagar et al. (1976), revealed that:

1. Precision is costly and is generally sacrificed when inexpensive evaluation methods are employed, and
2. The best evaluations are those which rely on more than one data collection method since the strengths of one method can often compensate for the weaknesses of another.

Roggenbuck's and Propst's review, along with Hodgson and Fritschen's (1984) discussion of experimental and quasi-experimental designs for interpretive evaluations, constitute the most advanced treatment of the topic to date. Although a bit technical for the nonscientist, Hodgson and Fritschen's presentation provides background in sufficient detail to be useful to professional researchers and graduate students undertaking evaluation programs for the first time. Topics include research designs, techniques for random sampling, measurement issues, and statistical analysis. McDonough's (1984) treatment of audience analysis techniques is also recommended to those needing detailed information on research methodology applied to interpretive evaluations.

Table 2. Summary of conclusions by Roggenbuck and Propst (1981) regarding the precision and expense of selected evaluation methods for interpretation.

<u>Method</u>	<u>Precision/ Resistance to Bias</u>	<u>Cost/Burden on Staff</u>
1. Review by peers, experts or outsiders representative of the target audience	Low to Moderate	Low to Moderate
2. Observation of behavior traces (e.g., litter left on a trail, nose prints on exhibit glass, etc.)	Moderate	Moderate
3. Self-testing devices (e.g., recording quizboards, interactive computers, etc.)	Moderate	Moderate
4. Observation of audience behavior <i>during</i> activities (attention, listening and viewing time, etc.)	Moderate to Good	Low to Moderate
5. Questionnaires (i.e., written self-reports of visitor enjoyment, learning or behavior)	Good to High	Moderate to High
6. Formal and informal interviews (i.e., verbal self-reports of visitor enjoyment, learning, or behavior)	Moderate (informal) to High (formal)	High
7. Observation of audience behavior <i>after</i> activities (i.e., behavioral responses)	High	High

A final topic in evaluation research methods is the writing of performance objectives to guide evaluations. The next section briefly reviews major precepts from the evaluation literature and summarizes what has been advocated by specialists in interpretive evaluation.

Objectives for Program Evaluations

The program evaluation literature reveals almost as many opinions about writing performance objectives as there are authors. Yet despite this diversity of viewpoints, several common characteristics emerge. Generally, a well-written performance objective is one that permits systematic evaluation of a program (Morris and Fitz-Gibbon 1978), and the characteristics underlying this quality are those that make unbiased measurement possible (Isaac and Michael 1978, Mager 1975). Most writings in educational evaluation (e.g., Metfessel and Michael 1967, Gronland 1978) as well as interpretive evaluation (e.g., McGee 1983, Evans 1983, Hodgson 1984) stress impact assessments, and that will be the emphasis here.

Assessing the impact of a social program requires that intended outcomes be described in such a way that:

1. the outcome can be *observed* and hence measured,
2. the conditions or circumstances under which measurement is to occur are clear, and
3. the criteria for acceptable performance (including time limits, performance levels, and minimum acceptability) are completely unambiguous (Mager 1975).

Because of Mager's preoccupation with evaluating *students'* performances, he (and most other experts on educational evaluation) places more emphasis on overt behavioral outcomes than may be necessary for some kinds of interpretive evaluations. For example, human behavior can sometimes be inferred reliably from the physical traces people leave behind (Webb et al. 1966). Litter, nose prints on exhibit glass, damage to floor tile, and other "survivors of past behavior" are examples of nonreactive measures which possibly could be used in evaluations of interpretive services and facilities (e.g., Godbey 1984, McDonough 1984).

Evans (1983) pointed out that a common error in developing interpretive objectives is stating the desired outcome in terms of the interpreter or service rather than the audience; for example, the interpreter will present three reasons why Lewis and Clark decided to spend the winter at Fort Clatsop. As Hodgson (1984) suggested, objectives so stated focus on the *design* of a program rather than its outcomes, making it worth little in an impact assessment.

An important quality of behaviorally defined objectives is that they describe an action; thus, a key characteristic of a well-written performance objective is the use of unambiguous verbs (Mager 1975). Clearly, verbs that are open to few interpretations lend themselves more directly to measurement than verbs that are open to many interpretations. Lists of suggested verbs for educational evaluation exist in Isaac and Michael (1978) and Mager (1975). In addition, Hodgson (1984) and Evans (1983) have compiled useful lists of possible action words for interpretive performance objectives.

Hodgson (1984) contains the most comprehensive treatment of interpretive goal analysis and performance objectives available. In addition to lucid discussions of their applications, his report contains instructive exercises in developing and writing goals and objectives for evaluation of interpretive programs.

As previously stated, a key element in well-written performance objectives is specification of the criteria to be used in judging a program's impact, or lack thereof, on a target audience. Following is a discussion of general types of evaluative criteria and a review of specific ones used in past interpretive evaluations.

Kinds of Evaluative Criteria

Critical to any evaluation is the selection of evaluative criteria, since decisions about the future of a program will be linked directly to the criteria used to judge its worth. At the most general level, criteria chosen should reflect *program objectives* deemed important by decision-makers and by policy governing the program. According to Hargreaves and Attkisson:

The primary consideration is that one include the dimensions of outcome felt to be important by the decision-makers who are the intended consumers of the study's findings. It is also important that the measurement approach be adequate to detect an effect that has some practical importance. (1978:331)

Perhaps inadvertently, Hargreaves and Attkisson suggest that "the dimensions of outcome" important to decision-makers may not always be of practical significance to program administrators. However, as Putney and Wagar (1973) and Hodgson (1984) have argued, if program objectives are written in concert with policy-level directives, evaluative criteria will more likely be relevant both to decision-makers and to those responsible for implementing the program.

Beyond the basic need to be relevant to the decision-making process,

evaluative criteria can be further classified according to the kinds of indicators they produce and the kinds of inferences about program inputs and outputs they permit. Suchman (1967) offered what has since been recognized as the seminal classification scheme for program evaluation criteria. According to his scheme (Table 3), evaluative criteria can focus on inputs (staff, money, effort), outputs (program impacts and benefits), or a combination of input and output factors (e.g., the relationships of outputs to social needs, the cost-effectiveness of program efforts, or the relationship of a program's impacts to the effort put into the program).

Organized into what Suchman and others (e.g., Attkisson and Broskowski 1978) have termed "evaluative domains," criteria for program evaluations (see Table 3) can be classified as:

1. *effort* — measurements of the amount and distribution of program effort or input,
2. *performance* — measurements of program outputs or impacts on target audiences,
3. *adequacy* — measurements of program impacts in relation to perceived needs or demand,
4. *efficiency* — measurements of program impacts per unit cost, and
5. *process* — measurements of the relative impacts of different kinds and degrees of effort.

Table 3 summarizes each type of criterion according to the kind of evaluation (Rossi et al. 1979) it fits, and its potential and prior applications to interpretation.

According to Roggenbuck and Propst (1981), criteria for evaluating interpretive programs should focus on the message (accuracy, length, grammar, and audience appeal), interpreter performance (organization, attitude, and communication skill), and audience response (attention, retention of information, changed attitudes and behavior, and resource appreciation). Young and McDonough (1985), focusing on audience responses to interpretation, stressed changes in knowledge, feelings, and behavior as three important (and related) criteria for judging interpretive effectiveness, and Hodgson (1984) offered the same triad in his discussion of interpretation goals.

Emphasis placed by these writers on performance criteria (Suchman 1967) and impact assessment (Rossi et al. 1979) seems to reflect the general interest of the interpretive profession as a whole. A nominal group study conducted at the 1985 national workshop of the Association of Interpretive Naturalists (Machlis et al. 1985) revealed that interpreters' most important criteria for evaluating interpretive services in the National Park Service were:

Table 3. Suchman's (1967) evaluative criteria.

<u>Evaluative Domain</u>	<u>Type of Evaluation</u> ¹	<u>Example Applications to Evaluating Interpretation</u>
1. Effort (input)	Program monitoring	Determining numbers of visitors reached, number of staff involved, pertinence of program to policy or guiding legislation, number of services over time and space (e.g., Machlis et al. 1983, Ham et al. 1984)
2. Performance (output)	Impact assessment	Determining whether audiences exhibit desired responses in learning, feelings, or behavior (e.g., Young and McDonough 1985, Hammitt 1985)
3. Adequacy (output ÷ need)	Program monitoring/ impact assessment	Determining whether current program effort is sufficient to meet perceived needs, whether scheduling matches visitor availability to attend, whether enough services focus on important topics, whether current size of program is sufficient to achieve desired effect on visitor population (e.g., Szwak 1984)
4. Efficiency (output ÷ input)	Economic efficiency	Determining whether program attendance justifies expenditures, whether program impacts justify expenditures, whether some types of services (e.g., self-guided) are more efficient than others (e.g., conducted) in terms of attendance or impact per unit cost (e.g., Wagar 1976, Knudson and Morfoot 1979)
5. Process [outcome = f (effort)]	Impact assessment	Comparing immediate and long-range impacts of various interpretive methods (e.g., media, topics, schedule, format, etc.) to determine which has greatest impacts and what the causal relationships are between kind and degree of effort and accomplishment of program objectives (e.g., Tai 1981, Feldman 1975, Fazio 1974)

¹Types of evaluation are based on Rossi et al. (1979). See Table 1.

1. visitor understanding of the resource (knowledge),
2. visitor appreciation of the resource (feelings), and
3. interpretation's role as a management tool (stressing visitor behavior).

Conclusion

The purpose of this chapter was to review the literature concerning evaluation of interpretation in parks, forests, and other leisure settings. I began by tracing the history of social program evaluation to show that the idea is not new, despite its relative infancy in the interpretation profession. I suggested that sufficient information exists in this broader literature for interpreters to capitalize on past "growing pains" of evaluation research, thus avoiding the need to develop precepts and procedures especially for application in the interpretive field. The remainder of the chapter focused on what these precepts and procedures might be and how they could be applied to evaluation of interpretive programs.

The literature revealed several major points about interpretive evaluation. First was that the need to routinely evaluate interpretive services seems widely accepted. Yet, in practice, more attention to systematic evaluation is needed. Second was that "evaluation" should not necessarily mean "impact assessment." Examples were given of three other types of evaluations that could be applied to interpretive programs. I proposed that erroneous conclusions can be drawn from premature impact assessments and that the meaning of any impact assessment becomes clearer when it has been preceded by an initial program planning evaluation. In general, the literature suggested that program planning evaluations are needed to determine where and when interpretive programs are needed, and that program monitoring evaluations are needed to verify that programs, once designed, are actually implemented before impact assessments are undertaken. Generally, program planning evaluations need to begin before programs are implemented, and program monitoring, impact assessments, and cost efficiency studies should constitute the core of an ongoing evaluation system thereafter.

A major section of the literature review dealt with methods of program evaluation. A general finding was that precise measurement of program effects is expensive, but that less expensive and moderately precise measures could be used to provide a reasonable indication of program effectiveness. The literature suggested that more frequent, though not total, reliance on humanistic methods might help provide a more complete picture of program impacts, especially if used in tandem with scientific measures. Finally, principles for writing performance objectives were reviewed and applications of these principles to evaluating interpretive services were described.

Evaluation of interpretive programs is difficult, yet important, if interpre-

tation is to meet the increasing challenge of accountability. Literature on this topic is diverse and growing, and a number of useful guidebooks for both administrators and researchers is becoming available. The future of interpretation in many public agencies may well depend on whether interpreters approach evaluation of their programs as rigorously as they do implementation. It is hoped that this review of literature on interpretive evaluation will be a step in that direction.

Sam H. Han

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Part Two

From the Parks

Chapter 2

“What” Comes Before “How”

Hank C. Warren

Hank Warren is Chief Naturalist at Olympic National Park, Washington. He has had twenty years' experience as a ranger-naturalist and is author of the book Olympic: The Story Behind the Scenery.

The criteria for measuring interpretive effectiveness is a timely topic for discussion. It happens that I have been giving thought to this matter recently, out of concern that we have tended to lose sight of the forest for the trees. Let me explain.

During the past several years, interpretive programs have been judged largely on how well they contribute to resources management, law enforcement, or safety issues, or how efficient they are from a cost-accounting standpoint.

I am not suggesting that interpretation shouldn't be an efficient part of the management team. My point is that parks were not created so that we could do resources management or law enforcement, etc. These activities are important, but they are secondary to the prime purposes for which parks were created.

It probably is easier for historical areas and the small, single-theme

natural areas to sort out the objectives of their interpretive programs than it is for the great natural areas. For example, clearly it is the historical events and personalities represented at Independence Hall that deserve prime attention interpretively — not the techniques of preserving historic buildings. Of course, we have a mandate to preserve historic buildings and some visitors may be interested in various techniques for doing so; but, if our interpretive programs focus on those techniques and lose sight of the significance of the events that shaped human history, they are missing the boat.

The same is true in natural areas. Visitors come to Hawaii Volcanoes National Park to experience the awesome forces of nature, or at least to see first-hand evidence of past displays of such forces. It is obvious to most of us that the interpretive program there should provide insights into the forces that cause volcanoes to occur and should discuss the physical and cultural impacts of the volcanoes on the rest of the world. Failure to do so would be another case of missing the boat.

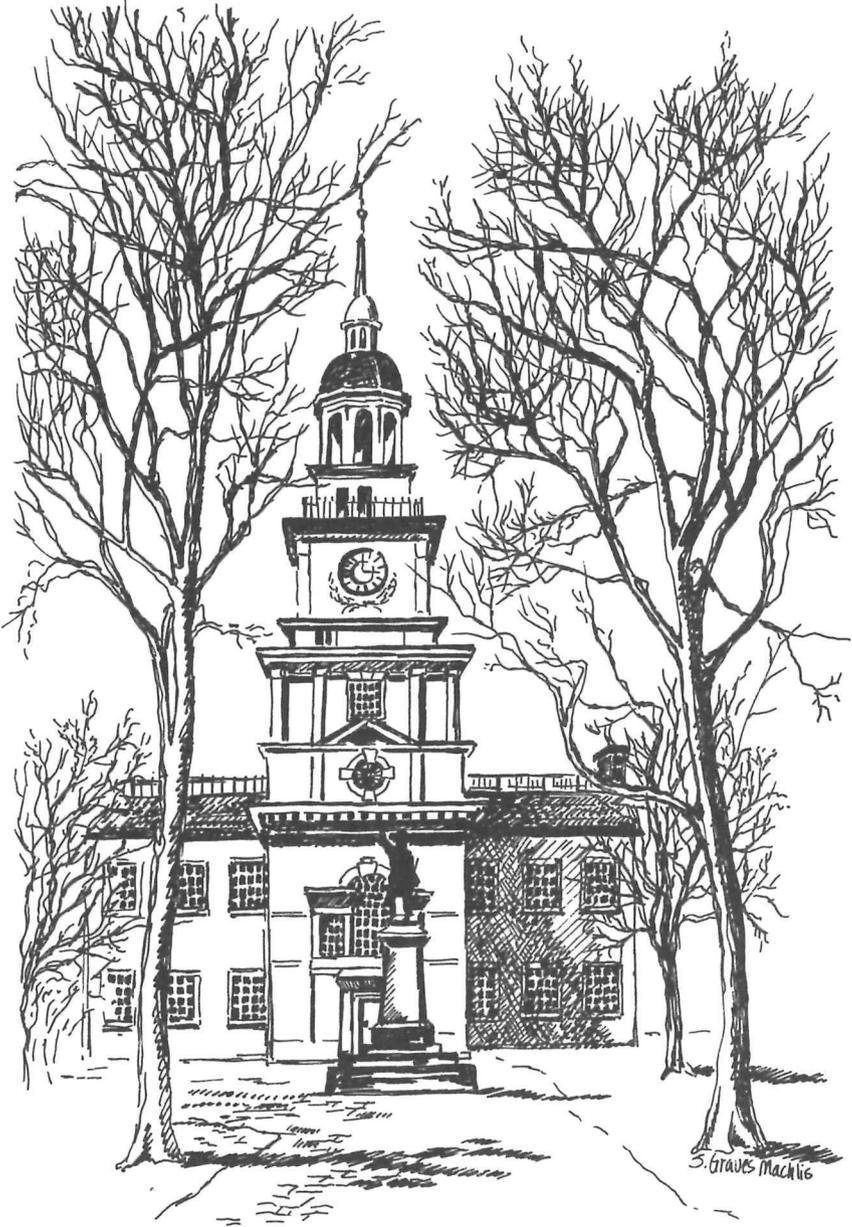
Somehow, in our larger, more complex, wilderness parks there is a tendency to regard interpretation more as a public relations tool than as an instrument whose main purpose is to satisfy visitor curiosity about nature. Our emphasis would be better placed on exploring scenic and scientific wonders in their own right. Helping visitors discover the causes, forces, laws, and principles that underlie natural phenomena *is* the primary job of a naturalist, because these phenomena add up to the primary reason the great natural areas were set aside. Unless we understand this, we cannot develop sound criteria for evaluating interpretive programs.

The goals of our interpretive programs, in my opinion, should be:

1. To enhance visitor appreciation for the natural and cultural heritage illustrated by the processes, events, personalities, and other resources around which the sites were established;
2. To stimulate in visitors a desire to leave the world a better place — physically and culturally — trying to impose our own specific value systems;
3. To stimulate in visitors a desire to learn more about their heritage;
4. To stimulate a dedication to objective truth — to dispel myth — to take a reasoned, balanced view of things;
5. To instruct visitors on how to enjoy resources safely and with minimal impact; and
6. To explain NPS policies that might otherwise be confusing to visitors.

If items 1 through 4 are done well, items 5 and 6 should follow reasonably easily, but the emphasis should be on items 1 through 4.

I think there is an additional principle to consider before we decide on



Independence Hall

evaluative criteria. Meaningful changes in human behavior do not often occur rapidly. Basically what I feel our interpretive programs should do is entice people to seek a fuller understanding and appreciation of natural processes and historic events. We plant seeds. Some will sprout immediately — but many may lie dormant, only to make substantive contributions to peoples' lives years later. Frankly, I am not certain that it is possible to measure realistically this important basic function; feedback is so rare. However, I know it does occur, and the occasional deeply felt expressions of appreciation from people — tears in their eyes or expressions of joy on their faces — have done more to convince me that interpretation is worthwhile than could all the formal evaluative systems combined.

My personal opinion is that interpretation is the art of explaining science or history. I do not think there are any concrete, objective criteria by which interpretive program effectiveness can be measured — any more than one can measure *any* form of art. Good interpretive programs just feel right, intuitively. Presumably, when they are relevant to the resource, based on accurate information, and hold the attention of the audience, they are effective.

My guess is that good interpretation causes certain behaviors to increase, but I am not sure that there is any one-to-one relationship, nor am I certain that there is any scientifically accurate way of measuring the influences of behavior changes. Some possible indicators might be an increase in:

1. Relevant publication sales;
2. Visits to the library to read relevant material;
3. People sharing concepts learned at interpretive programs with others;
4. Unsought testimonials to the quality of interpretive programs, exhibits, etc.;
5. Comments such as “I didn't know that” and relevant questions;
6. Donations to interpretive program collection boxes;
7. People's ability to answer questions correctly on relevant tests (computer games may be useful in this regard); and
8. A downward trend in vandalism, search and rescue actions, and law enforcement rates and an upward trend in compliance with park regulations.

Summary

When I am asked why we have interpretive programs, my response is “Why do we have national parks?”

Our parks represent hundreds of billions of dollars worth of our country's resources. If these resources are to bear interest, rather than remaining as

"What" Comes Before "How"

"frozen national assets," it would seem to me that a substantial interpretive effort is justified. The creation of parks inevitably represents choices of spiritual, esthetic, and cultural values as opposed to the merely materialistic. Whatever criteria we develop for evaluating interpretive programs need to be heavily weighted toward these values.

Henry C Warren J.

Chapter 3

Judgement of the Child: A Brief Polemic

George B. Robinson

George Robinson is Chief of Interpretation at Yellowstone National Park. His previous assignments include the Harper's Ferry Center, Everglades and Wind Cave National Parks, White Sands National Monument, and Chickasaw National Recreation Area.

Where plays the child,
who will live to see,
The last grizzly roam wild;
The last eagle flying free?¹

My point of view has been strongly influenced by personal involvement with environmental education activities during the last decade. It is fueled by an inner conviction that there is "hope for the flowers."²

I believe that the generally favorable public view of the National Park Service and the relative integrity of the National Park System today are valid indicators of success in modifying the perceptions and attitudes of young people involved in environmental education efforts during the early 1970s.

Several years ago, Shel Silverstein celebrated the unsophisticated sensitivities of childhood in a poem of great insight when he observed that:

There is a place where the sidewalk ends
And before the street begins,
And there the grass grows soft and white,
And there the sun burns crimson bright,
And there the moon-bird rests from his flight
To cool in the peppermint wind.

Let us leave this place where the smoke blows black
And the dark street winds and bends.
Past pits where the asphalt flowers grow
We shall walk with a walk that is measured and slow
And watch where the chalk-white arrows go
To the place where the sidewalk ends.

Yes we'll walk with a walk that is measured and slow,
And we'll go where the chalk-white arrows go
For the children, they mark, and the children,
They know
The place where the sidewalk ends.³

National parks, and the kinds of places and processes that they represent, are “the places where the sidewalk ends.” National parks are real values that can be validated by and through human experience.

The ultimate test of our success or failure in modifying human attitudes and behavior vis-à-vis the environment can only be measured in the future as young people, involved in some form of environmentally centered interpretation today, express their value judgements through positive environmental and quality-of-life behavior. It is reasonable then to say that in a contemporary context, it is not possible to judge the extent of our success.

The present is not a discrete unit of time. Just as children become adults through a constant process of maturation, so the present continually emerges from and is shaped by the past and blends imperceptibly with the future. In a very real sense, only today's children can ensure that there will always be “places where the sidewalk ends.”

Success depends on the *fundamental* purpose of interpretation. If the purpose is to entertain, then applause, laughter, handclaps, and other conventional expressions of approval may be considered indicative of success. If it is to inform, perhaps disturb, to invoke the child within, to generate love, understanding, and commitment, to help clarify values, to help ensure the long-term integrity of the planet and the quality of life on its surface, then thoughtful silence, expressions of concern, unabashed and unaffected interac-

tion with the earth and with others, are initial, and more definitive indicators of success.

I believe the fundamental role of environmental interpretation in the visitor experience is threefold. Each visitor should have the opportunity to interact with park resources in the following ways:

1. to satisfy basic needs, and to initially react to the physical and emotional impact of the environment;
2. to learn about its features, phenomena, and human history; and
3. to consider the relevancy of their experience, to themselves and to contemporary life and times.

At each level, the park interpreter functions in a different role, and with different objectives. At the first, the interpreter serves as a facilitator; at the second, as a humanistic educator; and at the third and highest level, as a provocateur — in the Freeman Tilden sense.

Behavioral psychologist Abraham Maslow suggested that the extent to which certain basic needs are satisfied governs human behavior. Only when the most fundamental needs are met, can a person turn his attention to the next lower priority in the hierarchy. The structure of this “hierarchy of needs” has a direct bearing on the susceptibility of the visitor to involvement in interpretive programs and on exposure to the values that interpreters suggest are worthy.

A variation of Maslow’s hierarchy as it applies to a park experience might read as follows:

1. Physical needs: the need for food, drink, and shelter; for relief from a painfully distended bladder; and for a campsite where the family can settle comfortably.
2. Safety and security needs: the need for protection from other people or the elements; for emergency assistance; for knowledge of hazards; and for the security of knowing that if something happens, a ranger will immediately materialize.
3. Social needs: the need for companionship; for association and social intercourse — the need to be with others of one’s kind; the need to set up one’s tent so close to the next that a skilled acrobat would have difficulty negotiating the passage. At this level, a visitor may first begin to seek involvement with others in interpretive groups.
4. Ego needs: the need for respect, to be a leader or authority; the need to learn; the need for acceptance and adulation. At this level, the visitor may first be susceptible to the transfer of knowledge.
5. Self-fulfillment needs: the need to achieve; to perceive larger mean-

ing; to understand and appreciate. At this level, the highest purpose of interpretation is manifested.

It is important that an aspiring environmental interpreter keep these needs in mind. One cannot expect to have the full attention of a visitor who failed to make a "pit stop" before joining the group, or who is afraid that an enraged and malevolent grizzly is lurking around every corner.

The visitor who has just driven over 500 miles in the family "wagon," full of noisy, recalcitrant kids and an irritable spouse, only to find that there is no room left at the inn, is not likely to be receptive to a discussion of the qualities of wilderness.

If one of the principal objectives of interpretation is the creation of perpetuation of environmentally sound cultural norms, and, if cultural norms are the collective expression of common values, then it can be said that interpretation is a process of values clarification. It is concerned with making words and actions consistent with beliefs.

Value theory suggests that values may be either intrinsic or instrumental. Instrumental values are a means of achieving something else that is wanted, needed, or valued. They are much more easily justified and may be stronger motivators of human behavior. For example, the personal survival needs for fresh water and pure air may be stronger motivators for the preservation of those elements of a natural system than an appeal based solely on intrinsic aesthetic values. Values actually experienced are much more positive energizers of conduct.

Environmental interpreters are educators, concerned with inculcating both inherent values (e.g., beauty) and instrumental values (e.g., the inalienability of man from environment). The former values are actualized through overt, conscious levels of communication (marketing or advertising). The latter, while temporally congruent, are pursuant to other values, which will be validated in the future. Instrumental values are instilled through deeper, covert, structural levels of communication (i.e., "provocation" in the Tilden sense).

The dichotomy between inherent and instrumental values is, I think, directly related to the multiple roles of the interpreter (or levels of interpretation) discussed earlier.

Interpreters (educators), practicing their art during the period of environmental activism that began in the early 1970s, may be said to have been successful in achieving their instrumental objectives. The generation of young people they were involved with now are more responsible members of the electorate (an admittedly intuitive judgement). They are voting favorably on environmental issues, publicly affirming their values through membership in and financial support of conservation organizations, and behaving in benign or low-impact ways while in natural settings.

Opinion polls consistently suggest that the National Park Service and System are held in high esteem by the public. Ostensibly, then, it may be said that, as public servants, we have achieved a measure of success. However, the issue is a more fundamental one. Contemporary public service is an important proximate objective, but the ultimate aim of interpretation, achieved through the cultivation of instrumental values, is the positive modification of environmental attitudes and behavior.

I believe that an interpreter, speculating on the ultimate objectives of his art can, with reasonable assurance, expect that the “self-fulfilling prophecy,” or the Pygmalion Effect will be instrumental in his or her achievement. The power of expectation alone can influence the behavior of others.

Robert F. Mager, in *Preparing Instructional Objectives*,⁴ and others have proposed schema for the development of “behavioral objectives” that are appropriate for measuring largely quantitative and objective values in purely academic situations. I do not believe that they are directly applicable to the interpretive context. The objectives, aims, or values of interpretation are basically qualitative and subjective.

Behavior modification (along with valuation) is a principal objective of interpretation, but *too often*, the imperative to define behavioral objectives as tools for measuring levels of success, tends to subvert the ultimate aim. Idolatry of the process (defining and using objectives) yields a condition in which the objective becomes an icon — a sort of “false god” in the educational context.

An instrumentalist educator knows that he cannot expect complete and final assurance in advance for values which can only be validated in the future by noting the consequences of acting on them (1962).⁵

It is important to keep in mind the differences between art and science. Inevitably there will be problems associated with any attempt to evaluate the consequences of two fundamentally different processes by reference to an arbitrary common standard.

Art is an affective, intuitive, unstructured, and often disordered process. Science is a largely cognitive, logical, structured, and orderly pursuit. The one finds its mental focus in the right cerebral hemisphere; the other is seated in the left brain.

Good interpretation, like good education, is both cognitive and affective. It is a fragile union of art and science. Any attempt to assess its effects must be considered in light of the disparate natures of those two pursuits.

Freeman Tilden suggested that interpretation is provocation, not instruction. Levels of provocation are not susceptible to accurate assessment, at least

in conventional ways, because they are inherently subjective values. Interpretation, at its highest level, is something of an abstraction, not measurable in tangible currency.

Practitioners of the interpretive art speak to the heart and soul, as well as to the mind. Because interpretation has an affective mode — an intuitive, or tacit dimension — a priori judgements may be as valid indicators of achievement of its ultimate aims, as test scores presumably are of the proximate and intermediate objectives of a purely academic pursuit.

One of William Wordsworth's sonnets reminds us that:

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers:
Little we see in Nature that is ours...⁶

It is axiomatic that values give direction to our lives, but we are confronted with a kaleidoscopic array of choices. In a frenetic constellation of confusing, evanescent, and often seductive values, the preservation of parks and all they represent is a consistent verity.

Our audience is incredibly diverse, but childhood is a common experience of all visitors. A simple, guileless, inquisitive, unsophisticated, and unselfconscious child dwells within each of us. Interpretation that appeals to those childlike qualities — that evokes the “sense of wonder” and capitalizes the learning potential of what Maria Montessori has called the “absorbent mind” — is the ultimate relevancy. Children have not yet suffered the alienation from earth that too often characterizes the passage to adult life.

Values cannot be taught, but they can be learned through experience. Values are seldom known by being “known about” — they must be felt!

Values clarification raises issues. It confronts one with inconsistencies — the manifold disparate views of what constitutes “desirable” values. It asks provocative questions, and innervates informed choice from among many alternatives. Clarified values help to share our view of the world.

I am a disciple of Freeman Tilden and an instrumentalist educator. I believe that it will be the judgement of the children, not a statistical summary, that will tell us of our success or failure as interpreters of the natural world. I believe that their judgement will belie the words of T.S. Eliot who said:

Between the idea
And the reality
Between the motion
And the act
Falls the shadow⁷

Judgement of the Child

This essay is dedicated to my son. I am confident that “Garrett he will mark, and Garrett he will know, the place where the sidewalk ends.”

A handwritten signature in cursive script, reading "Joyce Kilmer". The signature is written in black ink and is centered on the page.

Notes

1. Robinson, George, "Where Plays the Child," Unpublished poem.
2. Paulis, Trina, *Hope for the Flowers* (New York: Paulist Press, 1972).
3. Silverstein, Shel, *Where the Sidewalk Ends* (New York: Harper & Row, 1974), p. 64. Reprinted by permission.
4. Mager, Robert F., *Preparing Instructional Objectives* (Belmont, Calif.: Fearon Publishers, 1962).
5. Paraphrased from *Modern Philosophies of Education* by John S. Brubacher. McGraw-Hill, 1962.
6. Wordsworth, William, "The World is Too Much With Us," Sonnet No. 5 in *Viking Book of Poetry of the English-Speaking World*, ed. Richard Aldington (New York: Viking Press, 1958), p. 660.
7. Eliot, T. S., "The Hollow Men," in *T. S. Eliot's Collected Poems, 1901-1962* (New York: Harcourt, Brace and World, 1963).

Chapter 4

What Value Interpretation?

Marti Leicester

Marti Leicester is Chief of Interpretation at Golden Gate National Recreation Area. She has had previous experience at the Salem Maritime, John Muir, and Roosevelt-Vanderbilt National Historic Sites, as well as at Santa Monica Mountains National Recreation Area.

How does interpretation relate to the core mission of a park and why should we fund it? When Congress asks these questions, how well are we, as National Park Service managers, able to demonstrate the relevance of park interpretation programs? Until 1980, the answers we gave Congress were based on the primary question the NPS used to evaluate interpretation: “What is the *effectiveness* of park interpretive programs?” Today, political realities force us to answer a different question: “What is the *value* of park interpretive programs?” The future of interpretation rests on our ability to demonstrate its importance to park management as well as its worth to the taxpayer.

The concept of “core mission” dictates that the resources identified for protection in the establishing legislation of a park be the top priority for interpretive programs. This creates a paradox. Unfortunately, management of park resources extends beyond man-made park boundaries. In the 1980 *State of The Parks*¹ report, watershed management, air quality monitoring,

acid rain, or the effects of development outside a park boundary (to name just a few) have all been recognized as crucial impacts to park management. Balancing this, for the public to understand the often complex concepts and interrelationships of resources management, professional interpreters must use every means at their disposal to ensure effective learning. This means interpreters must use techniques that range from sensory involvement, to utilization of a wide variety of media, to reinforcing back at home the concepts that visitors have learned in parks.

The paradox consists of the way in which one translates core mission and the relationship to interpretation programs. Current political thinking views core mission interpretation programs as valid only within park boundaries. This approach is justified as cost-efficient because programs outside of parks imply additional costs. However, the fact is that park resources management programs must extend beyond park boundaries to be effective and so must effective interpretation. The result is that there can be no justification to support ineffective programs! I think this is an important point to consider when evaluation criteria for interpretation are established.

Two other aspects to consider in determining relevance and worth of interpretation are effectiveness and value. *Effectiveness* criteria for park interpretive programs were first proposed in 1957 in Freeman Tilden's book *Interpreting Our Heritage*.² Over the past twenty-eight years, we have continued to use Tilden's criteria and have expanded and added to them. For example, we are able to apply Tilden's six principles to an interpretive presentation; we have been trained in the techniques of questioning strategies and can count the number and types of questions in a nature walk; we can match interpretive media or presentations to the cognitive development of the people in an audience; we are able to determine if the programs or media meet the needs of children, minorities, seniors, and the disabled; and we routinely check a nature walk or historical tour against the teaching objectives set for it.

The common thread that ties together most of these existing criteria is that they measure the effectiveness of personal services programs (usually assumed to be ranger-conducted), and they focus on *in-park* media — museums, exhibits, waysides, audiovisual programs, and publications. Additionally, a shared characteristic of these effectiveness criteria is that they were adapted by NPS professionals who based them on criteria used by people who have traditionally been associated with park management — teachers, scientists, conservationists, and specialists in the humanities (folklorists, historians, anthropologists, archeologists, etc.).

The question of value has been abruptly forced on us as a result of budget cuts and the current political and economic emphasis on resource development over resource protection. New cultural and political objectives such as "accountability," "productivity," and "cost-effectiveness" must now be translated



Wayside Sign

into National Park Service management goals. As a result, we currently examine the value of interpretation in terms of “management efficiency.” This model measures the value of interpretation through volunteerism, donations and fund-raising, and cooperative activities, and has allowed us to continue to meet visitation demands in a time of extreme staff and dollar limitations.

I believe that the current business-oriented political climate, and the techniques borrowed from the private sector that characterize the management efficiency approach, can be used to generate opportunities to demonstrate that interpretation can be both effective and of value. Many of the technologies that serve business and the private sector could also benefit interpretation. They could be new tools for effective interpretation program management. I would like to see the function of interpretation broadened to include these technologies:

1. *Marketing:* Expand the technique of traditional “visitor use” surveys to become demographic, economic, and “consumer” or “interest” surveys of park visitors. These surveys could be done in cooperation with visitor and convention bureaus, chambers of commerce, or graduate students from vari-

ous university departments — business administration, geography, economics, etc. Such surveys could greatly improve our ability to better identify to Congress which interpretive programs and services are most needed and wanted.

2. *Advertising/Public Relations:* The preservation mission of parks must be better understood and more widely supported by the American public. “Package” both individual parks and the entire National Park Service! As Doug Warnock, Superintendent of Redwood National Park recently remarked, “In the 1950s the U.S. Forest Service put the slogan ‘Land of Many Uses’ on all their signs and publications, do you remember? The public does!” Develop logos, slogans, and an image with which people can identify, even those who have never visited parks. Combine the Travel and Tourism Division of the Washington Office with Interpretation to facilitate a more effective exchange of information between the billion-dollar travel and tourism industry and park interpretation program management. The aim would be to incorporate marketing, travel forecasting, advertising, and public relations techniques into park interpretive efforts. Along with heightened recognition, an “NPS image” could include value statements on preservation, safety, and the uniqueness of NPS areas.

3. *Mass Media:* The times and budgets dictate that the emphasis in interpretation can no longer be on personal services. We must move forward and use modern technology to reach the numbers of people we need to reach in order to ensure effective learning and to demonstrate value to the public. In addition to working with visitors in the parks, interpretation must incorporate media outreach. Interpreters can work with Public Information personnel to write weekly newspaper columns and produce programs for cable television and perhaps even for commercial TV.

4. *Build New Constituencies:* We have been talking to ourselves and our traditional constituencies for too long. The new skills we need demand that we seek assistance quickly from people with whom we have not traditionally talked — with professionals who can help us develop park interpretation and park management evaluation criteria. We have a golden opportunity to begin to work more closely with business, with communications professionals, with political strategists, with people from the recreation, travel, and tourism industries. By opening the doors to these new partners, we will not only gain the benefit of their expertise, but will reap the even greater benefit of their support.

At this time, the political climate and the culture at large emphasize a

business context of dollars and cents/profit and loss, and interpretation programs are also evaluated in these terms. However, as we seek to justify interpretation programs, we must remember that the process of “justification” is not simply looking for reasons expressed in numbers that can generate enough agreement to carry an idea. Justification also is an active and aggressive process of generating agreement and support. It is a process of getting decision-makers and their constituencies involved enough in an idea that they become open to the reasons advanced to justify it. Ironically, this is one purpose of interpretation. It also is the reason why evaluation of interpretation is so important and so politically sensitive. Both an effective justification process and an effective interpretation program can have a major influence on the political process.

The more precisely we apply the concept of core mission, and the more clearly we can distinguish between the questions of effectiveness and value to measure the worth of interpretation programs, the better we will be able to communicate the importance of interpretation to both a cost-conscious public and the current Administration. At the same time, we can improve the quality of interpretive program management while broadening the base of support for the National Park Service and the resources we have been mandated to protect.

Marti Leiceste

Notes

1. National Park Service, U.S. Department of the Interior, *State of The Parks—1980, A Report to the Congress*, May 1980, 57 pp.
2. Tilden, Freeman, *Interpreting Our Heritage* (Chapel Hill: University of North Carolina Press, first ed., 1957).

Chapter 5

A High Calling

Hobart G. Cawood

Hobart Cawood is Superintendent of Independence National Historical Park. He has served as park interpreter (historian) at five parks, superintendent at two parks, and park planner (historian) at one park of the National Park System.

As a park superintendent, one can never identify for a questioner the most important function of the job. Maintenance, resources management, protection, etc., all are important but interpretation is a *critical* element that helps hold the parks and the National Park System together. People care about things they know, appreciate, and understand. Things that people care about are perpetuated; things they do not care about are forgotten. Interpretation is a keystone in that it helps people to appreciate, understand, and care about the parks.

We must encourage our young interpreters to see their job as one of vital importance in the general scheme of park management. Interpretation is not a special frill, to be added or eliminated with the rise and fall of the federal budget; it is a profession, which demands that its practitioners meet professional standards.

The way we insure quality interpreters and interpretation at Independence

National Historical Park is through training. Before an interpreter (or volunteer) is put on the line, he or she is given an extensive formal training course. Admittedly, this takes a great deal of time, but since we put to work nearly 100 new interpreters (permanent, temporary, and volunteer) each year, the investment is worth it. We also have established a system of audits and additional training for all interpretive personnel.

I decided early in my career that the most important thing for new interpreters to understand is what they are striving to accomplish. Interpretation is not just the technique of interpreting; it is also the creation of a reaction in the heart and/or mind of the visitor. When we can create that warm glow, when the light bulb flips on in the visitors' minds, it is then that we have achieved the highest goal of interpretation. The information, the location, the interpretive media, and many more factors are involved, but it is that supreme moment when everything "clicks" with the visitor that we should strive to reach. Unfortunately, there is no common denominator with which we can reach all of our park visitors. Different methods interpret to different visitors in different ways. I also realize that, for some, the magic moment never occurs.

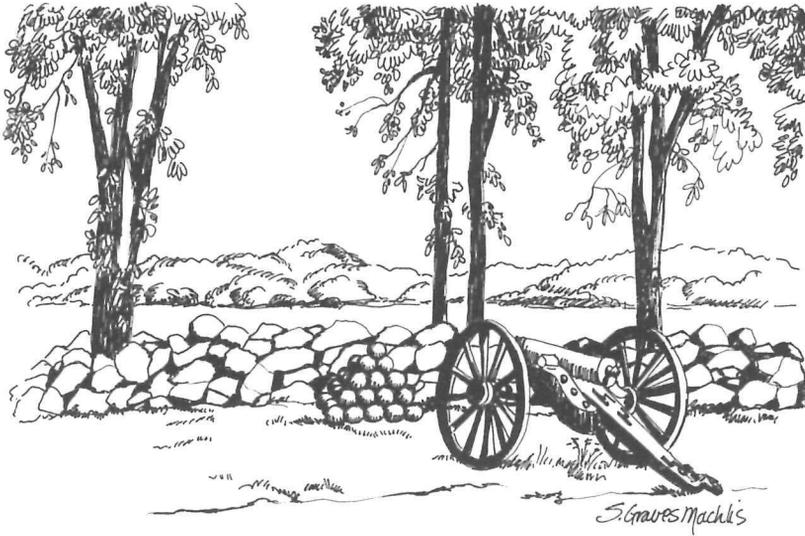
I came across an excellent example of interpretation during a visit to Gettysburg National Military Park in 1964. I was a knowledgeable student of the battle and enjoyed the park visitor center with its exhibits and cyclorama. I took the High Water Mark walking tour to the copse of trees and gazed across the field where the great charge from the Confederates had come. As I moved further south along the Union line, I encountered a small wayside exhibit between two cannons marking Cowan's Battery. The text is as follows:

. . . . A band of Confederates pour over the wall shouting "Get the Guns."

Cowan orders "double cannister" and loads the last rounds. At ten yards distance he shouts "fire."

It was like a hundred shotguns fired at point blank. When the smoke clears, no Confederate stands.

I was instantly affected. I thought about the Battle of Gettysburg; I reflected on the terrible waste of war; I remembered when my father was drafted; I even thought about my own military experience. With my own background knowledge and the information I had gained at the visitor center, plus the experience of being on the actual site, it was still this small sign that triggered the reaction. That is interpretation — the right message delivered by



Gettysburg National Military Park

the right medium at the right moment on the right spot.

I have had other real interpretive experiences: while hearing an interpreter talk in a meadow at Grand Teton, while talking to a “living history” Confederate soldier at Appomattox, on tour of the Assembly Room of Independence Hall, and at other times both in and outside the units of the National Park System. Sometimes it came from personal services; other times it came from a film, publication, message repeater, or exhibit. On a few occasions, I have visited historical and natural areas where I did *not* get that real interpretive experience. Maybe others around me did, but I missed it.

Interpretation that is worthy of the name is not easy. Every unit of the National Park System should have as its goal to provide a meaningful interpretive experience to all park visitors. Too often we are doing the job by rote. To be involved in interpretation is a high calling; when you connect with the visitor, you know it, and the reward is great.

A handwritten signature in cursive script that reads "Robert H. Lowry".

Chapter 6

Going for the Gold

Robert A. Huggins

Robert Huggins is Servicewide Private Sector Coordinator, Branch of Interpretation of the National Park Service Washington office. He was formerly Chief of Interpretation and Visitor Services at Big Bend National Park and has worked at Grand Teton, Lake Mead, and Isle Royale National Parks.

The single most important job of an interpretive supervisor is evaluating the interpretive program! The evaluation process is the most exciting, creative, rewarding interpersonal activity in which we, as interpretive supervisors, may engage. Most of us entered the interpretive field because we enjoyed the freshness, of creativity and the excitement of shared thoughts. No other field allows such latitude for experimentation, and so much room to find what provokes. Interpretation is a forgiving arena in which you can test ideas to the point of error, rebound, and continue to seek perfection through a multitude of possible avenues.

I have never seen a “bad interpretive program” — only ones that didn’t work. What could be more fun than evaluating this process — being a part of creative growth, sharing the excitement of seeing concepts suddenly blossom into an art form? And yet, to some, the term “evaluate” has a negative connotation as in “to critique” or find fault. In fact, “evaluate” means “to

find value.” Evaluation should be part of that creative process that we so eagerly embrace. It should be as important as creating a new program, and we should pursue it with the same energy.

Program evaluation is not something you do now and then. It is an ongoing process involving all aspects of the interpretive operation, including one’s own mind-set. It requires flexibility — the willingness to grow with new ideas and to chuck outdated (albeit comfortable) concepts.

Evaluating the Overall Interpretive Program

An interpretive program should exist for a reason, and the best reason is to fulfill one or more management objectives or goals. Now that may initially “stick in the craw” of those who believe that creative spontaneity should be the only catalyst for interpretation, but let us go ahead and work through this concept. Any interpretive program that does not address a management concern is simply entertainment, and therefore inappropriate from a cost-effective point of view. Most of us do not have the luxury of surplus time in which to engage in any activity that does not directly attend to the goals of management. At Big Bend National Park, for example, the Interpretive Plan (a management document) has identified six major interpretive themes and thirty-five sub-themes that need attention. With a limited staff and budget, the park simply cannot meet all of those demands, much less entertain a “just for the fun of it” program.

The first step in program evaluation is to establish management priorities. We must first ask the question, “What do we need to accomplish, and how can interpretation meet that goal?” Out of this analysis will emerge a “Scope of Interpretation” report that sets the parameters for what will be interpreted in the park and what will not. The document is an up-front statement that says someone has thought this through and has established limits. The interpretive manager is not being arbitrary when he or she says “no” to that really neat program idea that might be fun, but doesn’t fall within the scope of interpretation. An important point here is that the field interpreters need to know what the limitations are so that they can channel their initial creative energy within that scope.

Once we have identified the needs, we need to explore the “how.” How are we going to approach the need and what medium are we going to use to solve our concerns? At this point, we must engage the maximum amount of creative energy and be willing to cast aside our safe, comfortable mind-sets. Many of us still function under the old adage that if you have a problem, put up a sign; if the sign doesn’t work, try a slide program; if the slide program doesn’t work, nothing will. I think that all too often, by example or lack of thoughtful guidance, we lull our peers or subordinates into comfortable, tra-

ditional ways of doing things — the “We’ve always done it that way” syndrome.

Not long ago, I overheard a perfectly good supervisor tell a new seasonal, “You’ll need to have your slide program ready by next pay period.” What did that tell the new seasonal? a) There is a deadline (which is good); and, b) The program must be illustrated with slides — like all the rest of the programs in that supervisor’s district! The finest evening interpretive programs that I have seen have been *non*-illustrated. They have been the programs in which the interpreter actually talked *with* the audience, not *to* the audience. They have been the programs in which the interpreter stood on a fully lighted stage and produced images far brighter than any slide, music far sweeter than any pre-taped song.

I remember those programs, too! I remember vividly an interpreter dressed as a miner, walking into an amphitheater with a fully loaded live burro (who would bray on cue) and proceeding to share his life story as a nineteenth century mercury miner. I remember a ranger who was not even a member of the interpretive staff, walking up to his audience with a box of bones and assembling a moose, explaining why each bone made the moose unique. The audiences that walked away from those programs did so with a greater understanding of mercury mining and moose than any slide program could have imparted. They also walked away experiencing more than an interpretive program: They had experienced magic.

To encourage magic, you need to discourage traditional thinking and applaud originality. One way to encourage creativity is through “team building,” instilling the concept that we are not a group of individuals all working independently, but rather a cohesive team of peers working toward a common goal — excellence. A good team is made up of members who care about one another, they psyche each other up, they go to each other’s programs, they sympathize, they encourage, they brainstorm, and most important, they fear letting one another down. The results are obvious. The overall interpretive program has continuity. Even though one program is related to the next, each maintains its unique qualities. (No one wants his or her program to be like someone else’s.) The result is greater variety, less repetition, fewer errors, and a freshness that continues to evolve throughout the season.

I recently visited a well-known national park. Over three nights, I attended what were supposed to be three different programs. All three were slide-illustrated, using the same basic slides. All three discussed the same subject, a wishy-washy inventory of the resource (boring); all three used the same verbiage down to the same “personal” experiences. The interpreters were obviously using the same materials, but were working completely independent of one another. I would hope they would have flushed in embarrassment, then flushed their programs down the drain, if they had only taken the

time to see one another's presentations. And where was the supervisor? No teamwork there! What about the supervisor? Is he or she a member of the team? I will answer that with another question: Is the coach a member of the baseball team? The answer is obvious; the supervisor is not only a member, he or she should be the most *caring* member.

I once had a supervisor who never attended any of my (or anyone else's) interpretive programs. I asked him one day, "Why?" He replied, "I don't want to make the seasonals nervous." What an absurd statement. Why would he think that seasonals, who had poured their creative energy into programs that they were proud of, would be nervous seeing someone they knew and respected in the audience?

My experience has been just the opposite. I loved to have my peers and superiors come to my programs. I would always feel a surge that sharpened my senses, and pepped up my presentation, which in turn made the program more fun. I believe most interpreters feel the same way. If interpreters told me, as a supervisor, that they would prefer that I didn't attend their programs, that would tell me that there was no team trust and that they have programs that didn't work that they were embarrassed about. In either case, I would have failed as a team member. "Why am I suddenly viewed as 'the boss,' and not a friend who cares?" I would ask. "Why haven't I involved myself in the evolution of the program so that it is our (the team's) program rather than his or her program?" The evaluation would have to start with *me*.

Evaluating Individual's Programs

"I never go to a program the first few times the person gives it . . . that gives them time to work out all the mistakes." That attitude on the part of supervisors begged several questions. Are we working out our "mistakes" on the public? Is the first audience less important than the fourth audience? Hasn't the program been previewed to assure accuracy? Where were you during the preparation process and why aren't you secure in the knowledge that the first program is going to be the best possible?

The evaluation process should begin at the very beginning. The moment an idea pops into a person's head, the evaluation process engages. Is the idea a good one? Does it fit with the scope of interpretation? Where can we go with it? What is the appropriate medium? What other management concerns can it address? If the idea is a "go," evaluation continues through the outline process.

Big Bend uses an outline form called "The Interpretive Program Plan," which requires the preparer to commit to paper the title, time required, location, distance covered (if a hike), theme, objectives, safety messages, and method of presentation. The person is then required to outline the program

itself before gathering slides or looking for supporting materials. The outline should then be reviewed by the team “coach” and any other team member the presenter chooses. If the person is a new employee, a seasoned team member can be assigned as a “peer coach” to help with those little things a busy supervisor might overlook, like showing the rookie how to determine the front and back of a slide, where to find some particular information, or sharing those special tricks of the trade that only someone who is out there doing it every day knows. A returning seasonal employee is excellent for this. After all, someone re-hired is presumably among the best, right?

After the program has been assembled, it is reviewed as a presentation in its entirety from “Good evening,” to “Thank you for coming.” The reviewing audience is made up of the supervisor, peer coach, and other members of the team. This serves to evaluate not only the program and the presenter, but also the performance of the peer coach, and I can assure you that the peer coach is going to be just as anxious about the program as the presenter.

Once the program has been approved, it is ready for the visitors. Should the supervisor attend the first presentation? I leave that up to the presenter. Very often I find that the presenter wants the peer coach there for moral support and to help with any last minute “glitches” like a burned out projector bulb or an important, but unanticipated question. The peer coach and other members of the team can represent real moral support to a new person. The presenter should know at this point that the team is the friendliest and most sympathetic segment of the audience.

Follow-up

The first program is only the beginning. A once-“perfect” presentation may not remain so. A program should grow better with time; often it does not. Presentations grow stale, presenters can become embellished with tarnished material. Follow-up evaluations not only keep the program “honest,” but show that the supervisor and other members of the team care.

I encourage all the team members to go to all of one another’s programs. Generally, it doesn’t take much encouragement. The team wants to do that. What about the person who says, “Do I get overtime for going to other people’s programs?” I doubt that that person will be on the team next year! Competition among highly qualified employees is too great to allow for second best, whether it is a permanent supervisor or a short-term seasonal.

The crux of a good interpretive program is its people. Being an interpretive manager can be easy. You simply surround yourself with the best people, build on teamwork, encourage creativity, create an evaluation process that is consistent and rewarding, show that you care, not only for the programs, but for the people who create them; then get out of the way, because you have

Huggins

a team that's not going to be satisfied with the bronze — they're going for the gold!

A handwritten signature in black ink, appearing to read 'Huggins', with a stylized flourish at the end.

Part Three

From the Office

Chapter 7

Evaluating the Role of National Park Service Interpretation

Roger J. Contor

*Roger Contor is former Regional Director of the
National Park Service, Alaska Regional Office (now retired).*

From a manager's standpoint several decisions need to be made about interpretation in the national parks. Do we need it? What is its purpose? How good is it? Is it worth the cost?

If there is a need to protect the resources of our parks, then there is a *need for interpretation*. Still valid today is the old aphorism that through interpretation comes understanding, through understanding comes appreciation, and from appreciation comes protection. Public education, not law enforcement, is the key to the survival of our parks. While law enforcement is necessary, it is essentially aimed at the small percentage of people who are potentially or actually delinquent. The appropriate and positive behavior of the great majority of park users is a result of societal values, general public education, and specific information supplied through National Park Service interpretation.

The *purposes of interpretation* include the simple business of providing

public knowledge on where to go, how to enjoy the park, and how to do it safely. Providing the pleasure of learning — the opportunity of gaining increased knowledge — is perhaps the greatest purpose. People hunger for knowledge; they delight in the simple joy of learning new things. Creating a more appreciative society — yes, even with inspirational messages from historic figures and modern day philosophers — can help maintain a strong sense of national identity and social self-esteem. Through a good interpretive program, park visitors can go back home better prepared to understand and care for the ecosystem of man and the planet Earth. We are a materialistic society, and our survival depends on tempering our ambitions with the ecological realities imposed by a finite ecosystem. The national parks should not attempt to shoulder more than a fraction of the burden of public education, but in the special settings of the most unchanged parts of the American landscape, visitors are often more susceptible to sorting out their collective thoughts within the context of a higher system of values.

How good is interpretation? We must insist that nearly all national park interpretation is based on correct facts and extensive knowledge of the particular park. But with those as givens, there is still a wide disparity between average interpretation and true excellence. The interpretive effort should have some important meaning for everyone, whether seated in a campfire talk audience or merely passing through an interpretive center. On walks and talks especially, good interpretation should be geared to the appetite and experience level of that day's specific audience. A good interpreter will give as much care to find out with whom he is talking as to what he might be saying to them. The need is for a "live" interpreter, enthusiastic and aware of the happenings in the park setting at that very moment, briefed as to special events slated for the following morning or afternoon. People crave surprises, and all live interpretive efforts should in some ways be unpredictable — for the interpreter as well as for the audience. Don't deprive visitors of the chance for personal discovery. In the words of Albert Einstein:

The most beautiful experience we can have is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. Whoever does not know it and can no longer wonder, no longer marvel, is as good as dead, and his eyes are dimmed.¹

Is interpretation worth the cost? Even though interpretation is always the first target of the cost-cutters, the answer is an unqualified yes. Oh, we have learned not to send one naturalist on all-day hikes into the wilderness with two or three park visitors. And it is far better to train groups of local school-teachers than it is to have our interpreters travel to the schools and speak

directly to the children. Information imparted to a teacher is amplified in constantly expanding dimensions. The same is true of good interpretation presented to visitors. It does not fade and end as they leave, but is carried away in their minds and shared with friends, family, and co-workers. This “multiplying effect” defies exact measurement, but we know it exists, and it makes the effort eminently cost-effective.

The National Park Service research and resources management programs, including studies of visitor impacts on resources, have made great strides in the past few years. However, relatively little research has inquired into the impact of resource interpretation on visitors. A meadow chipped away by thousands of Vibram soles can be quantitatively compared with its condition at an earlier time or with a pristine meadow. But impacts on the human mind and spirit are difficult to measure and usually are subjective. How does one gauge the influence of a sunset on the psyche?

Good interpretation has the power to change people’s outlook. In a 1984 national poll of 2,000 adults, 84 percent gave a favorable rating to the National Park Service — higher than to any other federal agency. That kind of public support doesn’t just happen. Providing good service to the public through our interpretive programs is responsible for much of that support. It does not go unnoticed.

A handwritten signature in black ink, reading "Roger J. Kontor". The signature is written in a cursive, flowing style with a large, prominent initial 'R'.

Note

1. Einstein, Albert, "What I Believe," *The World as I See It* (New York: New York Philosophic Library, 1934).

Chapter 8

Skating the Thin Ice

William H. Sontag

William Sontag is Chief, Division of Interpretation, National Park Service, Rocky Mountain Region. He has served eleven years as interpreter within the National Wildlife Refuge System and has been a college instructor of interpretive methods.

Freeman Tilden told the truth, but not the *whole* truth! In his typically gentle fashion, he gave us a prescription of ingredients necessary for quality interpretation. He did *not* speak of required managerial capabilities, nor did he point out just how really difficult it is to practice all the philosophy he prescribed. To be fair, he did acknowledge "... since I am ploughing a virgin field so far as a published philosophy of the subject is concerned, some of my readers may be provoked into adding further furrows."¹

Freeman spoke eloquently to us about quality, but analysts today don't seem to care about it: "You won't prove you did it, therefore it can't be quantified, thus it can't be analyzed, so it must be irrelevant." A colleague of mine says "Quality will drive us crazy if we try to define it, but it's too important to ignore."²

Twenty years ago, the Kingston Trio sang a ballad called *Desert Pete*³ that had a moralistic refrain, adjuring the listener to leave some water behind

so the next user could prime the pump at a desert spring. The message is, roughly, give and ye shall receive. This truism is, I believe, applicable to interpretation in that interpretive programs must be designed to take a risk and bend to the circumstances in order to be successful.

Like the desert wanderer who happened on the rusty old pump and Desert Pete's note, the interpreter must make an investment to tap a deep groundwater source for success. The payoff, of course, is a familiar elixir of cool, satisfying ego refreshment, but the tempting primer-bottle invested contains a costly and demanding item called flexibility.

Flexible means, according to Webster:

1. capable of being turned, bowed, or twisted without breaking; pliable; 2. willing or ready to yield to the influence of others; not invincibly rigid or obstinate; tractable, manageable; 3. ready capability for modification or change; plasticity; consequent adaptability to new situations.⁴

Interpreter flexibility is manifest in many functions! Developing a repertoire of delivery techniques and subject matter probably is the most obvious. Of the two, technique is the kit of tools carried from place to place; facts (subject matter) are acquired site by site.

Skill in communication demands a renaissance approach to dealing with people. *Basic* communication skills are not enough for the interpreter. By examining the notes and bars that compose a good interpretive presentation, we can recognize the difference made by extraordinary communication skills — the flexibility that turns our repertoire from a minstrel's song into an exhilarating symphony.

Flexibility may be impossible to quantify, but *may be verified*, so let's settle for that. Let's also agree that no single criterion may stand alone to create a successful interpretive effort. So, what are the criteria for excellence which, cumulatively, demand flexibility from an interpreter?

Fun: The audience is without exception expecting to have a good time; if that expectation is met, a success may be in the offing; if that expectation is unmet, a failure is virtually guaranteed, period. If clues verifying that folks are having a good time are absent, assume the worst! Is *everybody* happy?

A riverguide friend in Utah once described a father-son pair of customers who commissioned a raft trip down the Colorado. The father, clearly bored with the idea, climbed onto the raft saying "This trip is a gift to my son; please entertain him and leave me in peace." With this, he climbed onto a food box, crossed his legs and pulled a fresh *New York Times* from his duffle.

What a damper on the whole party during two days of quiet water! Eventually, like the proverbial two-by-four, the river itself came to the guide's rescue. In Cataract Canyon's rapids, the father lost his newspaper, his aplomb, and his aloofness. At last, fun was had by all!

Interpreter's Ego Involvement: Enthusiasm — contagious enthusiasm — is probably the best evidence that the interpreter's self esteem is actively involved in the task at hand. Over a long haul, enthusiasm is verifiable. You can't measure it, but you can sense it. Sustained enthusiasm can't be faked.

Guiding and Creating Values: Does the interpretation stimulate the intellectual juices and inspire new or rekindled thought regarding cultures and resources? This one is hard to verify of course, but even a crude gauge is better than no attempt at all. During its summer '84 exhibition, "Wolves and Humans," the Science Museum of Minnesota distributed to viewers a questionnaire that systematically probed specific before and after impressions. I believe most folks tried to be candid; many expressed fairly dramatic differences in pre- and post-visit opinions about wolves.

Interpreters may believe they are still no more than "salesmen of knowledge," that it is their job only to present facts and allow visitors to draw their own conclusions. Granted, all media should avoid biases, but we're fooling no one if we disavow our intent to use facts to modify both thought and behavior. There's no shame in our role as protagonists for improvements to environment and society. We are *more* than "salesmen," and our performances should so demonstrate.

Responsiveness: Repertoire and flexibility combine to provide talented interpreters the gift that Freeman Tilden called "seizing the moment." An ability to do this well is easily verified when the opportunities occur and are either seized in triumph or lost in awkwardness.

In 1976, an elderly Kiowa gentleman asked permission to accompany an eagle tour at Wichita Mountains Wildlife Refuge in Oklahoma. He'd never seen an eagle. To fulfill a life-long ambition, he wanted to conduct a traditional and personal ceremony, with an eagle feather fan he'd brought along. In the backcountry of the refuge, perched in snags across Comanche Lake, two mature balds were spotted. As the old Indian sang and bowed to the four compass points, the birds flew across the lake and circled directly overhead. As he continued to chant, ten more birds joined the first pair — now an even dozen bald eagles were scribing tight spirals in the cobalt February sky!

In this case, silence was the only logical response; any English words at the moment would have been superfluity and travesty. Silence all around, for one-half hour, until all were back on the bus, shivering from the cold, warmed by the event — silence which *acknowledged* the significance of the event! A verifiable response!

But silence also can be non-responsive, embarrassingly ignorant of the event, and destructive to any interpretation that follows. Recently a seasonal interpreter at Mount Rushmore was detailing the blasting and carving procedures used by Gutzon Borglum and crews to create the visages of Washington, Jefferson, Roosevelt, and Lincoln. Above the mountain, a storm was preparing an atmospheric blast, which could have beautifully augmented the story and have made dramatically vivid the hazards faced by the carvers. The misfortunate interpreter chose to ignore the crack of thunder and its simultaneous bolt, which pounded into the hillside and echoed in the air. But his audience could *not* ignore the tall, flaming snag that threatened to singe Lincoln's beard. An electrifying opportunity, hopelessly muffed!

Such events, of course, are difficult to anticipate, but good judgement demands an adequate response. One may pretend to ignore the event, but only in the sure knowledge that an audience will be lost. And that's verifiable, too.

Pertinence: Quality interpretive efforts (campfire program, guided hike, roomful of exhibits, a nature trail, etc.) must aim for, and hit, three targets of pertinence:

1. the soul of the audience,
2. the resources present, and
3. the management issues which encumber those resources.

The latter two are easily, albeit subjectively, verifiable. To verify accomplishment of the first may seem to require an invasion of privacy; we are, however, obliged to try to see how well we've done. Would anyone practice pistol shooting without checking the target score?

Vehicles for "checking the score" on the pertinence-to-the-audience target may include carefully designed on-site questionnaires and follow-up survey procedures; even a careless or casual effort in this regard may yield useful and fascinating results, as long as no one attempts to apply statistical analyses that the caliber of data does not support.

The simplest gauge of visitor pertinence may also be the most useful and effective as a communication device in its own right: asking the audience to respond to carefully planned questions, on the spot, before, during, and after a presentation. Prior to the advent of interactive video, such a gauge was necessarily limited to personal service interpretation, but now interpreters have reason for honing their questioning strategy skills. The hierarchy of recall, process, and application questions can be employed as never before.

I believe most park visitors stand ready to publicly share personal information from at least one of four categories:



Mount Rushmore National Memorial

1. family,
2. profession,
3. personal philosophies, or
4. previous adventures.

And if an interpreter asks the audience or a thoughtfully chosen member of that audience to tie one of these categories to the event, person, or object being interpreted, three things are likely to occur. First, the audience may be convinced that the interpreter is more interested in *communication* than didactic delivery. Second, the ensuing dialogue more or less forces evidence of pertinence from at least one person. Third, *all* participants are consciously stimulated to examine the interpreted subject for pertinence to their own lives. Unless abused, these three things occur each time the interpreter simply asks a question!

The Thin Ice: Notwithstanding Tilden's invitation to elaborate upon his wise words, we're skating in a hazardous area when we appear to embellish. It's easy to be lulled into belief that there's really something new to say, when it ain't necessarily so. Still, there's pleasure in turning a prism to look at a different display of the spectrum.

I've said that to show *quality* an interpreter must be *flexible*, and that to show flexibility, the interpreter's program must be *fun, ego-involving, value-loaded, responsive, and pertinent*. Some of these I hold in such high esteem because I have trouble producing them myself. However, this difficulty has not deterred me from trying to grasp them. No interpreter should be so deterred, even though the "challenge" may seem no more than a euphemism for "frustration." In the flexible format of their trade, poets often meet all the criteria we've discussed.

Shel Silverstein is a clever poet/interpreter who writes for children; adults may take delight in his messages, too:

Listen to the MUSTN'TS, child
Listen to the DON'TS
Listen to the SHOULDN'TS
The IMPOSSIBLES the WON'TS
Listen to the NEVER HAVES
Then listen close to me —
Anything can happen, child,
ANYTHING can be.⁵

A handwritten signature in black ink, appearing to read "W. H. Auden". The signature is written in a cursive, flowing style with some loops and flourishes.

Notes

1. Tilden, Freeman, *Interpreting Our Heritage* (Chapel Hill: The University of North Carolina Press, 1967), p. 8. Reprinted by permission.
2. Spurgeon, John M., Personal conversation with the author. Denver, Colorado, 1984.
3. Kingston Trio, "Desert Pete," album *Sunny Side* (Los Angeles: Capitol Records, 1970).
4. Grove, Philip Babcock, ed., *Webster's Third International Dictionary*. (Springfield, Mass.: G. & C. Merriam Company, 1971).
5. Silverstein, Shel, "Listen to the Mustn'ts," *Where the Sidewalk Ends* (New York: Harper & Row Publishers, 1974). Reprinted by permission.

Chapter 9

How Should Interpretation be Evaluated? A Management Perspective

William J. Briggle

William J. Briggle is Regional Director of the Pacific Northwest Region of the National Park Service, Seattle. He is past park superintendent of Lake Mead and Lake Powell National Recreation Areas, and Glacier and Mt. Rainier National Parks. He has also been Deputy Director of the National Park Service and Deputy Director of the National Park Service, Pacific Northwest Region.

History tells us that formal interpretive programs began more or less simultaneously in Yellowstone and Yosemite National Parks in 1920. Establishment of formal programs, however, was preceded in many national parks by the individual efforts of park rangers to satisfy the curiosity and answer the endless questions of park visitors about the plants, animals, geology, and archeology of those early parks. These early efforts were directed mainly toward providing information based on questions asked by visitors. They were a noble effort and well-received for that time and place.

Times have changed, however, and it is my contention that we now have a much broader mandate to park visitors than just to provide information. I strongly believe that interpretive programs should whet their curiosity, stimulate their interests, and provoke them to seek, on their own, additional knowledge and experiences relating to the wonders of the park. Discovery is one of the most satisfying rewards known.

The above preamble forms the basis for evaluation of interpretive programs. If our formal programs are indeed designed to provoke, stimulate, motivate, and spark the interest of park visitors, then *how they react to our programs* should give us some criteria for evaluation. Some positive indicators we should look for are:

1. Program attendance — are they well-attended? (consider time of year and total number of visitors in the park).
2. Do visitors stay and participate once the program is started?
3. Does visitor feedback, to the presenter or to each other, indicate enjoyment, understanding, satisfaction?
4. Do visitors write letters of appreciation after returning home?
5. Are complimentary remarks overheard at entrance stations, campgrounds, or by other park employees anywhere?
6. Do visitors linger after programs talking to one another or to the program leader?
7. Is the general tone of the group cheerful and receptive (group camaraderie)?
8. Are there return visitors to programs and to the park?
9. Is there a positive reaction to visitor center exhibits, living history, etc.?

Negative responses might be:

1. Excessive talking and foot shuffling.
2. Visitors leaving the group en masse or by ones and twos until the group is dissipated.
3. Negative comments overheard.
4. Complaint letters.
5. Negative feedback picked up by park employees.
6. Poor attendance or progressively decreasing attendance.
7. Heckling.
8. Vandalism to facilities or sites; that is, littering or whittling on amphitheater benches (excessive or more than normal), damage to visitor center and wayside exhibits.
9. Tone of activity — dull and indicating lack of interest by visitors.

The above indicators can tell us how well we are satisfying visitor expectations. Other techniques can supplement the above observations; for instance, revenue derived from sales of interpretive literature, film, books, maps sold at concession facilities and through natural history association outlets; direct correlation to overnight stays at lodges and cabins, both inside and outside a park; entry fees to parks along with revenue derived from special tours to view park attractions. If attendance increases and more dollars are collected,

this certainly can be considered a legitimate evaluation of interpretive efforts.

In addition to satisfying visitor expectations and needs for sound interpretive activities, there also is management's expectation that interpretation should assist in park problem-solving. To accomplish this, park interpretive staff must be active in management discussions identifying controversial natural and cultural resource problems caused by visitor or natural population use of the park. Interpreters should be prepared to modify the emphasis on primary interpretive themes when the need arises, and provide their audiences with insights into issues that threaten the integrity of the resource, and perhaps, the immediate welfare of the visitors.

An interpreter stops on a nature walk to pick up a piece of litter. Soon, some of the group also will begin to pick up litter. Continued application of the technique will result in a much cleaner trail; interpretive effects can be measured in the visitors' increased individual responsibility for their actions, and in a direct reduction of maintenance costs for litter pickup. These efforts can be evaluated by statistics, observation of human behavior, and the stabilizing or actual decline of resource damage. Shutting down selected activities from time to time also will give management an opportunity to evaluate effectiveness, particularly where resource damage might occur if a service is discontinued.

As important as it is to give effective on-site programs, it must be recognized that interpretive efforts will only be fully realized if those programs help solve or minimize natural resource and cultural resource concerns or issues that face park managers. If this can then be related to dollars saved, which it most often can be, then we have another technique in our bag of evaluators.

In conclusion, the final evaluation of interpretive programs rests with the park visitor and those indicators described earlier. One additional indicator, rarely considered, is the economic impact on the neighboring area, both in real and estimated income resulting from outstanding interpretive programs.

Park visitors and, to a substantial degree, the entrepreneurs who provide services to visitors, are among the most reliable evaluators of interpretive programs. If we can learn to read and interpret their responses, then managers will have a valuable evaluation tool. This method of evaluation is dependent upon managers and supervisors attending and observing enough interpretive programs to assess visitor reactions and interpret from them the degree of effectiveness of the programs observed. It can also be an enjoyable experience and is a well-deserved change from sitting behind the manager's desk.

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Chapter 10

How Should Interpretation be Evaluated? A Personal Perspective

Cynthia E. Kryston

Cynthia Kryston is Interpretive Specialist (historian) for the National Park Service, North Atlantic Region. She formerly held positions at Boston and Minute Man National Historic Parks, John F. Kennedy Birthplace National Historic Site, and was Acting Superintendent of Women's Rights National Historic Site.

Looking at, listening to — experiencing — an interpretive program is much like experiencing a work of art. You know you like or dislike it, but if asked to dissect the why's and wherefore's, you may be at a loss.

Interpretation is not an exact science where two grams of vivid description or one of cost-effectiveness equal success or failure. Tours, walks, exhibits, etc., do not measure well into bottles and jars or dollars and cents. And unfortunately, we cannot test each visitor for knowledge acquired. Interpretive programs, unlike chemical formulas, have emotional and artistic components and overtones that do not translate readily into scientific equations.

This is not to say there cannot be a structured, organized approach to interpretive evaluation. Exact measurements may be impossible, but well-formulated assessments and guidelines on what is good, bad, persuasive, or ineffective are not.

Obviously, with taxpayers' dollars supporting interpreters' salaries, interpretive devices, visitor centers, activities, and so on, some benchmarks are needed by which programs can be judged. Checkpoints of success or failure are essential to maintain quality and ensure professionalism. Most of these checkpoints are subjective judgement calls.

One approach to answering the question "How should interpretive programs be evaluated?" is by way of the questions good newspaper journalism asks. For example, WHO is the audience for the interpretive program and, therefore, WHO is doing the evaluation? Every component should be geared toward an audience — which can be of different kinds and, hence, of varying demands and expectations. Considering how well a program reaches a particular audience is an important aspect of planning and evaluation.

The first audience is the visiting *public*. As public agencies, parks exist to provide public service. Visitor needs are both physical and intellectual. How well the interpretive program provides for these needs is an evaluation factor and a reasonable scale of effectiveness. Does the interpretive program help create a safe park environment for the visitor? Does it recognize that visitors are more receptive to information in relaxed and comfortable environments? Does it provide variety both in personal and non-personal services at accessible points in the park? Does it recognize that visitors come in different ages, cultures, sizes, and knowledge levels and does the interpretive program shape its mediums and messages accordingly? Do the interpreters observe and listen to visitors and their evaluations and act upon suggestions?

More difficult to gauge is the effectiveness of interpretation in its mission of enlightenment, understanding, and enrichment for the visitor. There is no "illumination quotient" for determining whether the visitor has been uplifted and motivated to learn more about the park story or to cherish its resources. (Sales dollars of interpretive material or numbers of bodies are shaky indicators at best.) Damage not done and appreciation instilled in other generations are unseen checklists for the future.

A second audience, also part of the public, but with its own special needs from the interpretive program is the *community*. Is there cooperation between interpreters and their peer groups at corresponding sites, sharing of resources and skills and joint interpretive efforts as appropriate? Is the community involved in planning programs? The length of an interpretive program's reach into the community can be an indicator of the program's vitality and a feedback mechanism from the program's neighbors.

Moving into the park's administrative structure, we find another audience — *park management* — and beyond that, levels of regional office, Washington office, and Congressional evaluators. If management is a team effort and interpretation is part of that team, then certain criteria are expected for the management of the interpretive program. Basics include being within

budget, effective programming and utilization of personnel and planning documents, compliance with management policies, anticipation of program and management's needs, research, employee training, creativity, and program reevaluation to weed out weak parts.

Also, there must be the realization that the interpretive program is not an island on its own sea. It has an obligation to cooperate with and support other park divisions as well as to compete with them aggressively for the best interests of interpretation.

A final category of audience and evaluation is *interpreters* themselves. The interpreter's own professionalism is on the line when an interpretive program is being evaluated — both the components of the program and the people who devise it. Thus, the interpretive staff itself should initiate and support evaluation.

Does the program respect the resource and tell its story in the most compatible and skilled way possible? Is monitoring and evaluation of the program a continuous, rather than a sporadic, process? Does the interpretive story use a holistic approach that incorporates current research? Is it told with updated techniques and methods? Is the interpretive staff skilled, enthusiastic, and loyal to their own program?

The quality of interpretive activities is often directly linked to the self-esteem and respect interpreters have for their profession and programs. While maintenance deficiencies in a park may be obvious, attitudinal deficiencies are harder to evaluate. And yet, this single factor may be at the root of all other problems in the program.

Next is the consideration of *WHAT*? Are the individual parts of the interpretive program well matched to their purposes? Do they stimulate visitors to learn, to return? Are the right mediums conveying the right messages? Is safe and regulated public use of the cultural or natural resource fostered by the interpretation? Have circulation patterns and schedules for interpretive activities been designed with a sharp eye toward protecting the resource?

An interpretive program should not be born on whim and die of old age. There must be planned births and arranged deaths as circumstances dictate. Solid evaluation, criteria, and format facilitate this.

Last, but certainly not least, is *WHY*? Does the program have a reason for being that is clearly evident in terms of park themes, goals, and needs? Does it lead to knowledge and appreciation of the resource?

Evaluation is a philosophical process as well as a practical one. Interpretive evaluation must answer to both interpretive and management principles, but first it must know *why* it is and *what* it must do. Otherwise, a park exists for pure recreation or as a silent monument to the past.

It is possible, therefore, to establish a systematic evaluation process with criteria that signal the merits or failures of programs, so that there can be



Interpretive Ranger

orderly changes. Like a good news story, a well-conducted evaluation can headline both the good and the bad features of our interpretive efforts.

Ultimately, however, like the impact of a masterpiece, there is no yardstick for enrichment, no scale of enlightenment, no gauge for emotion. Anyone touching the past or a natural wonder through interpretation is reached invisibly and rejoices quietly. Under it all lies a magic where the soul is quicker than the eye, where the human spirit is gently moved. And there lies the realm where quality is finally measured.

Cynthia E. Kryston

Part Four

From the Universities

Chapter 11

Evaluating the Role of Interpretation

Grant W. and Wenonah A. Sharpe

Grant W. Sharpe is Professor of Wildland Recreation at the University of Washington, Seattle, and editor/co-author of the textbook Interpreting the Environment. Wenonah A. Sharpe is a writer, editor, and co-author, with Grant (and Charles Odegaard) of the textbook Park Management, and co-author, with Grant (and Clare Hendee) of the textbook Introduction to Forestry.

In evaluating the role of interpretation in the National Park Service (NPS), one should move cautiously and with humility. After all, this agency was first in the field and has maintained a tradition of high-quality programs, except in some cases where recent funding austerity has caused lamentable slowing of forward motion. But if the Park Service now seeks input on the job it has done so well for so long, we must overcome our filial inhibitions and take a critical look at how interpretation should work in its native agency.

We can begin by reviewing interpretation's classic objectives:

1. To assist visitors in developing a keener awareness, appreciation, and understanding of the area they are visiting;
2. To accomplish management goals by encouraging thoughtful use and reasonable behavior that minimizes impact on the resources; and
3. To promote public understanding of agency goals and objectives.

The chief role of interpretation has been, and continues to be, enthusiastic pursuit of the first objective. It is the obvious and most enjoyable task for the (usually) nature-loving interpreter. The public seems to appreciate this emphasis and often actively seeks information on natural and human history to enrich the park experience. This is what interpreters want to do, and most do it well.

The second objective, that of helping to accomplish management goals, has been recognized as important for some time. This activity is often frustrating, as is any attempt to change human behavior. Interpreters who must think of innovative ways to say "no," sometimes find themselves behaving like a parent at best, a policeman at worst. Few have been trained for this role.

Has interpretation in the National Park Service seriously attempted to serve as a management tool? Certainly examples of alleviation of problems through carefully located programs and specifically targeted messages are extant. Interpretation can be used to assist in almost any management dilemma except budgetary anemia, and even there, public support has been elicited and funds directly generated in certain situations. Conflicts between and within user groups is another area susceptible to interpretive measures. Certainly, creative attempts to help solve management problems should be a major criterion in the evaluation of interpretation.

A great deal of research activity is being generated in national park areas. Control of introduced species and of diseases and pests, soil problems, wildlife habitat identification and protection, wildlife/human confrontations, acid deposition, site deterioration in camping areas, threats from adjacent land use, and management of wild fish stocks are some of the areas currently under study, many of them with the help of computer analysis. Evaluators must ask if interpreters are adjusting to this emphasis and forwarding others' research efforts in addition to vigorously pursuing their own. These research programs are seen as assisting in effective management of resources, so for this reason alone, they recommend themselves to interpreters who seek to be fully involved in interdisciplinary efforts. When the public has to be informed or queried on proposed changes resulting from such research, interpretive expertise would surely be useful.

As for the third objective, promoting public understanding of Park Service goals and objectives, interpretation probably has assisted in building a broad political base for the NPS, helping to ensure that funding and/or personnel raids by other agencies or departments would not go uncontested.

With the increasing complexity of the Park Service mandate, through its responsibility not only for parks and monuments, but for national seashores and lakeshores, preserves, parkways, memorial parks, scenic riverways, historical parks, historic sites, a number of miscellaneous areas, and its vast new acreage in Alaska, the need for finely tuned interpretation to "promote public

understanding of the agency's goals and objectives" grows more urgent. Some visitors cannot distinguish between the Park Service and the Forest Service. All areas may be state parks to them. They may even fail to distinguish between public, tax-supported lands, and privately held lands. How then can they comprehend these subtler categories?

Interpretation is challenged here. Even if visitors recognize the Park Service logo, the many areas the Park Service administers often have differing regulations, and visitor expectations may be at variance with ranger-enforced realities. Pre-arrival information needs to be carefully crafted and frequently revised. Information generated in the area adjacent to the park by merchants and the news media should be monitored. These sources should be tactfully informed of park activities and schedule changes. Inside the park, there are several sources of information such as maps and brochures, bulletin boards, and administrative and regulatory signs that interpreters may be able to make more effective. Another check point then is whether or not interpretation is assisting fully in these types of management activities, which, in turn, seek to promote agency goals and objectives.

Beyond evaluating the role of interpretation as it seeks to carry out its declared objectives lies another criterion for judging its effectiveness: is it fulfilling the objectives assigned it in the park master plan, and is it adequately addressing the objectives of the interpretive master plan?

One must assume that the current emphasis on accountability means interpretation must justify the time, money, equipment, and personnel it requires; therefore, interpreters must look beyond simply helping the public enjoy its visit. They must keep in mind and reflect in their programs the need to protect and maintain the park resource. In this and in other innovative ways, interpretation can serve the needs of the park manager (superintendent) in his or her struggle to operate the park on a shrinking budget. If this struggle is lost, the drama is over, and interpretation has no role to play at all.



Chapter 12

Evaluation: The Interpreter's Dilemma

Maureen H. McDonough

Maureen McDonough is Associate Professor, Park and Recreation Resources, at Michigan State University. She has taught interpretation for six years, does cooperative extension work in interpretation, and has written many publications on interpretation.

The evaluation of interpretation is a problem with many roots. Professional interpreters recognize the importance of evaluation, but most are still unsure when it comes to information-collection procedures. The stumbling blocks between interpreters and their evaluation goals are many and the frustration levels are high. This paper will discuss some of the problems and suggest some solutions.

What Are We Evaluating?

All evaluation problems require two areas of decision; first, consideration of *what* it is that we are trying to evaluate; and second, attention to *how* we can evaluate whatever it is. These two areas must be considered separately, even though they are related. Unfortunately, most of the time devoted to interpretive evaluation is spent on discussing evaluation methods rather than

on what it is we are actually trying to find out. As a result, we have many lists of suggested methods but few discussions of what the results of applying these methods can tell us. One begins to suspect that this trend is a result of the more basic problem of not knowing exactly what we want our interpretive programs to accomplish. It is hard to measure results when we are not sure what we want those results to be.

A look at the literature about interpretive evaluation shows that we usually try to evaluate one of three things: the interpreter, interpretation, or impacts on visitors. Evaluating the interpreter involves such variables as nonverbal behavior, eye contact, style, voice quality, and organization. Evaluating interpretation means looking at the message itself. Is it brief? Does it relate to the audience? Are the media appropriate? Does it provoke any action from visitors? Finally, evaluating impacts on the visitor involves a determination of whether the visitor learned anything, had a good time, or changed his or her attitudes as a result of the interpretive service. Impact on the visitor is certainly the most problematic area of interpretive evaluation. It is also the only one of the three listed above that is not an internal type of activity within the interpretive profession. It forces interpreters to look outside themselves for audience indications that their programs are effective.

I do not mean to suggest that evaluation of visitor impact has not taken place. Studies of impacts on knowledge (cognitive impacts) have included knowledge gain, knowledge retention, and some work in cognitive differentiation. Impacts on feelings (affective impacts) have included preference, enjoyment, and attitude change. Impacts on overt visitor behavior have included what people actually do, as well as the amount of behavior change. Generally, when we try to evaluate impacts on the visitor we are trying to evaluate change. Did a change occur as a result of our efforts?

Why is *what* interpreters choose to evaluate such a slippery problem? I think there are three reasons. First is the matter of not being sure, as a profession, what it is we want to accomplish through the provision of interpretive services. This uncertainty translates directly into the second problem. What we select to evaluate is directly related to program objectives. Objectives are the end we are trying to reach; where we want to be at the conclusion of an activity. The way objectives are written directly influences the outcome of any evaluation efforts. If the objectives of a program are not clearly identified and tied directly to program content, then good evaluation becomes very difficult.

I have worked with a variety of providers of interpretive services, and I am well aware of the problems in writing program objectives. The task can be broken down into three categories, and all three must be dealt with satisfactorily or the resulting evaluation is doomed to "fuzziness."

The first category, as I see it, is setting the achievement levels for

objectives. If the level of achievement sought is too high (e.g., 90 percent of visitors will be able to define an endangered species), then few programs will measure "effective" against that goal. If they are set too low, then visitors may have achieved that level before attending the program, and impact (change) is not being measured.

Second is the integration of knowledge, attitude, and action objectives. If we want our program information to lead to certain attitudes and actions (behaviors), then the information given must be tied to feelings as well as learning and this must be stated in the objectives. Objectives are the end we are trying to reach; where we want to be at the conclusion of an activity. If the objectives of a program are not clearly identified and tied directly to program content, then good evaluation becomes very difficult.

For example, if the topic of a program is dune ecology and we desire change in visitor knowledge and feelings about the dunes, then there should be continuity between knowledge and feeling program objectives. If we have a knowledge objective about the animals of the dunes, then we need a feeling objective about the animals of the dunes.

Objectives also need to be written so that they clearly state what behavior will be evaluated. This means including concrete information in the objective. For example, instead of saying that visitors will know animals of the dunes, an objective should state which specific animals will be known. In addition, the objectives should deal directly with what we want to accomplish. If we want to change littering behavior, that change should be an objective. There is a tendency to come at our objectives obliquely. For example, we write our objectives to deal with understanding dune ecology when we really want people to stop littering. We hope if they understand ecological principles they will stop littering. This may be an admirable and lofty goal, but by doing this, we make evaluation exceedingly difficult. This last problem leads directly into the third problem area relative to determining what we will evaluate.

The third problem area (relative to determining *what* to evaluate) is program content, which is directly tied to program objectives. If objectives are ambiguous, then each individual interpreter is left to select the specific material that will be included in an interpretive program. Inconsistent content across programs is a real stumbling block in interpretive evaluation. To have good evaluation you must have some control over program content. Many things are dependent on this including the development of reliable instruments. In addition, it is simply true that if you don't cover material in a program, it is hard to evaluate whether you had any impact. However, this idea is an anathema to some of the basic ideas about being an interpreter, including flexibility, creativity, and use of the teachable moment. But these ideas, while still important, were born in an era when interpretation was

viewed as an inherently good thing to do. It always had positive impacts on the visitor so there was no need to evaluate those impacts. If we are to have good evaluation, we need to step away from some of our freewheeling ways and build content consistency into our programs.

How To Evaluate?

How to evaluate is also a difficult problem in interpretation. Evaluation of the impacts of any service on users is complex. This is true in education, social services, and in other aspects of recreation programming. However, some characteristics of interpretive evaluation have contributed to a set of problems that is unique to this area. *First*, interpreters are not generally trained in research and often are located in isolated areas where technical assistance is not readily available. *Second*, while there is a plethora of methodologies for doing interpretive evaluation, there has been no real evaluation of these methods in terms of what works where, and what is most applicable in different situations. *Third*, most interpretive evaluation is done on-site for organizational purposes and thus is not reported in the literature. The combination of these three factors has created a serious problem for interpretive evaluation. Because most of the work is not reported in the literature, it is difficult for the professional to build a reliable and tested set of methods that can be used in a variety of settings. So interpreters, isolated in the field, take the lists of methods that are available and choose something that sounds reasonable or that they heard about through the interpretation word-of-mouth network. Because the results of whatever they try are not reported in the literature, no one else can learn from their successes or failures. And so we go around and around, never building a set of methods and instruments that can be used throughout the profession.

In addition, other characteristics of interpretive settings make evaluation especially problematic. It is hard to control the environment of interpretation. Interpretation takes place generally in recreation settings where many factors may influence the impact of the services. Outside factors may not only influence program impacts but the evaluation process as well. A second related characteristic is that the nature of visitors often makes it hard to identify influential outside factors. Visitors come from a variety of places and have different backgrounds. Level of repeat visitation may make a difference. Outside factors also are influential with school groups. We may think we know a great deal about these groups, but we rarely look at teacher knowledge when we evaluate impact! Finally, the recreational nature of the experience makes the choice of methods and instruments limited. Visitors come for one visit and then leave, making it hard to perform long-term studies. They are also there to have fun, not to be tested.

Solutions

I would like to suggest some things we can do to move toward a more coherent system of evaluation in the interpretive profession. These suggestions fall into two categories: evaluation of specific programs and overall interpretive evaluation. There are solutions that are particularly important to the evaluation of specific programs at specific sites.

First, we need to define clearly the desired impacts on the visitors. As interpreters, what are we trying to do with our programs? We also need to ask what kinds of impacts we can realistically measure. Then we need to make hard decisions about integrating these two factors.

Take knowledge gain as an example; this is often an objective of interpretation. Can we measure it accurately? How can we control for environmental factors, previous knowledge, short- and long-term retention of information, or complexity and organization of individual cognitive structure? In addition, is knowledge gain a reasonable expectation for our visitors? If so, at what level? Think about how we learn. We go to class, take notes, and study in an attempt to absorb and retain information. Do we have different expectations of our visitors? Can we measure those changes that do occur? I suggest we need to rethink what we want our services to accomplish. Maybe it is simply enjoyment, a result more easily measured than behavior change.

In addition, in a classroom setting, the evaluation is of whether the students know the information, not whether they got it from the teacher! However, in interpretive evaluation we often want to know if the program caused change; did they get the information from us? Again, we need to rethink our goals. Is it change we want or would we be satisfied simply knowing visitors had the information? Would this satisfy administrators of interpretive programs?

Second, we need to spend more time developing program objectives. Objectives are an essential precursor to evaluation. Without carefully written objectives, it is next to impossible to interpret the results of evaluation. The first step in careful construction of objectives is a philosophical one. Who decides what visitors should hear about? Writing effective objectives means taking a close look at audience needs and desires. The next step is to limit the number of program objectives per program. It is difficult to design evaluation instruments when the objectives are far-ranging and diverse. The evaluation strategy becomes more and more complex and difficult to administer. In addition, program objectives need to be clearly integrated with one another.

Third, program objectives and program content should be closely related.⁵ If we are concerned with behavior change, then we should talk about it.

Fourth, care must be taken to establish consistency of content across programs; otherwise, it is nearly impossible to develop an evaluation strategy.

Without content control, each time a program is given, a new strategy for that program will have to be developed. This does not allow for building reliable methods over time and is not an efficient use of resources. Granted, some control over content reduces the individuality of each interpretive program, but without it we cannot evaluate, and without evaluation, we may end up with no interpretive services at all. The trade-off seems worth it!

Finally, interpreters need to assess more carefully the methods of evaluation they intend using. This should involve more training in the use of a variety of evaluation methods. Only in this way will we see the use of more sophisticated methods such as experiments. In addition, interpreters need to become more astute in considering what they are trying to evaluate, resources available to them (including time), outside assistance, their own skill, and the clarity of potential results in terms of being able to interpret what they mean. Selecting an evaluation method simply because it sounds interesting or someone else used it successfully should be discouraged.

In short, the interpretive profession can take positive steps toward development of an adequate evaluation system. First, we must define realistically the desired impact of our programs on visitors, and we must approach this definition as a profession that cuts across specific sites and programs. What is it we want to accomplish? Is it really attitude change, or simply the provision of enjoyable experiences (which is the precursor to learning)? Is it long-term knowledge retention, or simply the short-term manipulation of behavior for management purposes? Enjoyment and behavior management are demonstrably easier to measure than attitude change and knowledge retention. We have to take a hard look at our profession and come to grips with these issues. The goals that are reflected in our professional literature directly impact on-site program objectives and, therefore, evaluation strategies.

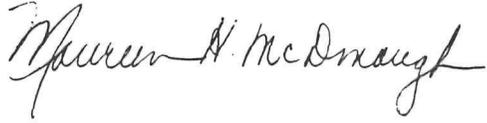
Common goals are necessary for our second task. We need to develop common "test items" or "instruments" that can be used across the profession. The objective here is to lower the number of items we need in order to evaluate impact, and to raise the reliability of those items. This will again require cooperation across the profession including significantly more sharing of the results of on-site interpretive evaluation. We need a better vehicle for that sharing; the beneficial results could be immeasurable.

Finally, there is a need to test relationships among the various evaluation methods. Are they comparable to the point of being interchangeable? Are simple things like attention span related to more complex things like knowledge? If so, it would be possible to substitute simpler measurements of complex impacts. Again, development of such professional knowledge will require cooperation from all the players in the interpretive field.

In conclusion, I would summarize this argument as follows: we need a concerted effort, as a profession, to build an evaluation system. This will

The Interpreter's Dilemma

take time, cooperation, and commitment from us all. The alternative is not simply a failure to justify cost-effectiveness to a particular organization, but loss of the opportunity for systematic growth of our profession.

A handwritten signature in black ink, reading "Lauren A. McOmough". The signature is written in a cursive style with a large, looping initial 'L' and a long, sweeping tail that extends to the right.

Chapter 13

Evaluation of Interpretation

William J. Lewis

William J. Lewis is Professor of Sociology at the University of Vermont. He spent twenty-nine summer seasons in Yellowstone National Park as a park ranger, interpreter, and oral communication specialist. He is author of the book Interpreting for Park Visitors and consultant to a wide variety of national parks and other interpretive organizations.

The evaluation of interpretation is both simple and complex. At its simplest, an interpreter has a gut feeling at the conclusion of an interpretive activity as to its effectiveness. The feeling derives from feedback such as: visitors asking many stimulating questions, visitors were observed combining disparate concepts into innovative understandings, or visitors were enthusiastic about their interpretive experience and seemed to understand the mission of the National Park Service and, in particular, the park area they were visiting. One just “knows” when one has done well.

Slightly more complex is evaluation by the interpreter’s supervisor and/or trainer, who observe the interaction between the interpreter and the park visitor and make a judgement as to its effectiveness. Although it is more complex because two entities are observed instead of one, the evaluation is still at the gut-feeling level.

In another sense, interpretation could be viewed as a fine art, as a

performance, and as such could be evaluated as a poem, play, book, or symphony might be. Perhaps each park needs a critic who would write reviews of interpretive events. This type of evaluation is still near the simple end of the continuum, but should not be misconstrued as less instructive.

Evaluation becomes more complex when the analysis turns to a supposedly more “objective,” “scientific” level. If the purpose of interpretation is merely to transfer facts from the interpreter to the park visitor, the process seems fairly straightforward. Park visitors could be given “exams” before and after an interpretive event and the acquisition of knowledge (much of which will be only temporarily retained) could be determined.

If the purpose of interpretation is to give park visitors an “enjoyable” experience, one could merely have park visitors rate the interpretive activity on an enjoyment scale of one to ten.

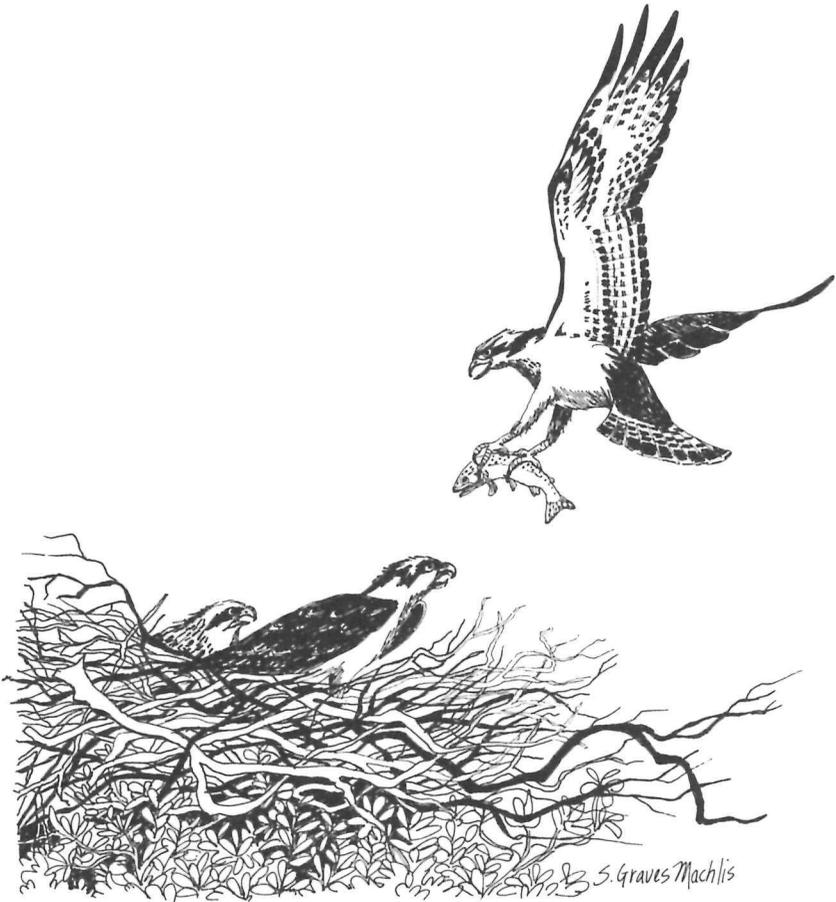
If the purpose of interpretation is to make it possible for park visitors to see the relationship of a park to their home areas, the research becomes more complex, requiring long-term follow-up beyond park boundaries.

If the purpose of interpretation is to gain support for park management’s policies, it would be possible to measure *attitudes* toward policies before and after an interpretive event, but this would be of limited value because: (1) attitudes do not necessarily determine action; (2) measurement of an isolated instance may not represent the whole; (3) the unit of measurement is usually the individual, whereas it is well known that communication with peers in small groups (families, for example) is often more persuasive in affecting attitudes and behavior.

Furthermore, an interpretive instance is but one of many stimuli a park visitor receives while visiting a park. The quality of a meal served in a concessioner’s dining room while experiencing a radiant sunset across a mountain-surrounded lake may be more meaningful than interpretive activities. Seeing an osprey’s diving catch of a trout, or suffering a face swollen with buffalo gnat bites, or being charged what is perceived to be an exorbitant fee at the medical concessioner’s facility, or being roughed up by a rutted park road — any such experience may have more impact on a visitor’s enjoyment of a park than an interpretive activity.

The situation is further complicated by the various attitudes and knowledge that visitors bring with them to the park. My point is that interpretation is only one of many influences on a park visitor. An attempt to definitely assess interpretation by studying the impact of only one interpretive activity on a limited number of park visitors is extremely naive.

An additional difficulty involved in “scientifically” measuring interpretive impact comes from the problem of short-term versus long-term effect. If park visitors are given questionnaires immediately following an event, one has only a momentary glimpse of a visitor’s satisfaction, acquisition of facts,



Osprey Sharing its Catch

or attitudes. What visitors do after leaving park boundaries may be more important than what they do while in the park. Do they discuss their park experiences with friends and associates, who then pass on the word to others? Communication researchers in the 1950s strongly believed in the hypodermic needle theory, which hypothesized that message impact was determined entirely by message design. Once you had the "right" design, you just injected the public with it, "knowing" that it would affect all of the recipients in the same way. Researchers now are much less naive. They recognize that different persons respond uniquely to the same message and that attempting diffusion of your message through targeted opinion leaders may be more effective than simply presenting it to an undifferentiated mass audience.

Interpretation, in its persuasive sense, is similar to advertising. It "sells" such items as environmental concepts, and attempts to persuade visitors to "buy" products like conservation processes. Since millions of dollars already have been spent by advertisers perfecting methods of evaluating advertising, and because interpretation and advertising are similar in some respects, perhaps interpreters might adopt some of the advertising world's evaluative techniques. For example, representative audiences are first shown previews of television commercials and then are given in-depth interviews to determine impact. Audience responses are used either to alter or to cancel messages. Might representative groups of park visitors "preview" interpretive events?

Another evaluative method used by advertisers is to ask television viewers to keep diaries of their program-watching, after which evaluators check viewers' kitchen shelves to see if purchases correspond to those products advertised on the programs viewers claim to have watched. Might research be done to discover if there is a correlation between the number of interpretive events attended and the number of organizations joined such as Sierra Club or the Wilderness Society? Is there a positive relationship between a summer trip to Yellowstone and a fall and winter chairpersonship of a town's toxic waste disposal study group?

When evaluation of interpretation moves from the gut-feeling level to the more complex "scientific" approach, the necessary commitment of time, energy, and monies increases proportionately. It is my belief, after having observed, practiced, and coached interpretation in parks for more than thirty years, that the gut-level type of evaluation is satisfactory for more purposes. Those who manage interpretive staffs, however, want "hard facts" to convince park superintendents and others that they deserve a larger slice of the budgetary pie. "Hard evidence," because of the complexity of the interpretive process, does not come easily or inexpensively. It seems to me that unless the evaluation of interpretation is recognized for its complexity and unless sufficient monies and other resources are allocated to study the impact of interpretation over a long term, in and out of parks, as part of a complex system of

various stimuli, we have little alternative but to rely on intuition, which, in my experience and judgement, is highly reliable. It would be a grave error to do a “budget-trimmed” study with undeveloped methodology, which would result in unwarranted generalizations. Pending the day when the complexities of interpretation can be defined and studied in sufficient depth and with adequate funding, it would be wiser and more effective to trust the accumulated wisdom of skilled and seasoned workers in the field.

William J. Leurs

Chapter 14

A New Mandate for Interpretation

Donald R. Field

Donald R. Field is Senior Scientist, National Park Service, Cooperative Park Studies Unit, and Professor at the College of Forestry, Oregon State University. He has published many articles related to interpretation and is co-editor of the book On Interpretation: Sociology for Interpreters of Natural and Cultural History.

In the early 1970s, social science and interpretation formed a partnership to explore ways to improve the communication of natural and cultural history to people in parks. The partnership hinged upon a more complete understanding of people and human behavior in leisure settings and the communication principles that could be employed there to exchange information more effectively.

In this essay, I highlight several key findings that have emerged from this early partnership. I then propose a new mandate for interpretation that includes social science data. I propose this new mandate for two reasons; first, one must have a data base — some measuring stick in order to evaluate interpretation. Thus far, interpretation has not developed any uniformly adopted or sustained data base to evaluate its activities. While it is true that interpreters in the '70s made some attempt at evaluation, their qualitative criteria were not acceptable to other areas of management. Several quantitative

methods were proposed and tried, but were aborted in part because interpretation did not deem the methods appropriate or accept them as instrumental to their duties and responsibilities. Second, any evaluation methodology employed within interpretation must include the clientele in the evaluation process. Heretofore, interpretation has been inconsistent about the role people (visitors) play in the performance of interpretive duties and responsibilities. I conclude the essay by calling for a "human resource management" plan and program, similar in effort to the natural resource management program, as part of this new mandate. The interpretation division could be the custodians of this new responsibility.

Highlights of Past Efforts on Visitor Patterns

The track record for social science research in support of interpretation is remarkable if you consider that the majority of research occurred between 1970 and 1980. Prior to 1970, the knowledge base available to the social science community on visitation patterns in parks was minimal. To remedy this fact, a series of studies was initiated by the National Park Service social science research staff in the Pacific Northwest Region. These studies were directed at assessing who visited national parks and who did not, the rate or frequency of visitation, regional and local influences upon visitation, and the importance of parks within the leisure lifestyle of American citizens. Simultaneously, a series of case studies on specific clientele groups visiting parks was undertaken. A natural history approach was employed, yielding the following key insights of value to interpretation:

1. Visitors to parks were diverse and no single communication technique was equally effective with all groups of visitors.
2. Each type of visitor group displayed unique behavior patterns during its visit. If such recreation patterns were identified, communication options could be linked or matched with the behavior.
3. Visitor groups could not be understood independently from the recreation experiences they sought and the recreation environments where they were found. In fact, the recreation environment (those leisure settings and recreation places) offered clues to the types of interpretation or communication options that might be more effective for the time and place.
4. Like the unfolding of a recreation event, which has a beginning and an end, communication is a process that can be effectively integrated at different stages of the event or visit to a park.

Social science research demonstrated the benefits of a behavioral

approach to the communication process. The insights have value whether for targeting programs to specific clientele groups or disseminating management information to park visitors and monitoring the results of a management action.

Toward a New Mandate

Interpretation cannot exist without a strong link to the publics it serves. By publics, I do not mean simply those diverse visitor groups who use parks. I include in my definition the management staff — general rangers, law enforcement specialists, maintenance personnel, and resource management staff. Interpretation somehow in times past became isolated from other division responsibilities. Its practitioners tended to define their activities narrowly to include predominantly a relationship between their division and the visitor.

Interpretation in the past has relied heavily upon a benign faith that preparing a set of generic presentations on natural or cultural history for a general audience was sufficient justification to obtain the needed program support. Interpretation has drawn upon natural science and history for program content or for specimens in museum exhibits, but the actual participation by interpreters in collection activities, once so prevalent, has diminished. This often self-imposed isolation of the division has had dire consequences for staffing, for its specialists' career ladders, and for the fiscal resources to conduct its activities. Whether viewed politically or operationally, interpretation as a park activity must generate support — the necessary resources to create and carry out its duties. Those duties must include equally the other divisions in park management as well as the diverse visitor publics it serves.

Interpretation does have much to offer other park divisions. Interpretation is interdependent with resource management, ranger activities, and maintenance. The communication skills of the interpreter, the special ability to understand and interact with people, the knowledge of how to package and disseminate information that has the potential to alter human behavior — these are professional assets of inestimable value to other park management functions.

By focusing almost exclusively on providing a limited number of communication services to park visitors, interpretation has lost power and prestige in comparison to other divisions. As a contrasting example, law enforcement certification requirements provide prospective rangers with a well-marked route for advancement within the organization. The glaring lack of any such requirements and the advancement pathway they furnish serves to discourage recruits and trainees entering the National Park Service from pursuing a career in interpretation. If interpretation is to reemerge within resource management agencies like the National Park Service, it must control a sector of information

that is required within management plans or that must be documented by the agency.

The mandate I propose, however, requires a sustained data base operated by interpretation in support of both *its* activities and those of *other* divisions. Resource management has natural and cultural inventories; law enforcement has case incident reports; maintenance has inventory of roads, buildings, etc. These data help define the various missions, document and support budget requests, and serve as a basis for evaluating accomplishments as well as problems. Interpretation has had, to this point, little quantifiable information to describe its results and substantiate its contributions to the organization. The remedy to this deficiency lies in knowing more about visitors as people. People are to interpretation as plant and animal species are to the natural resource specialist. Monitoring human use of the parks would provide the data base. The natural link between interpretation and people affords an opportunity for a renaissance of the division.

Conclusion

In this essay I have not focused on criteria for evaluating interpretation per se. Instead I have stepped back and argued that the people who visit parks are the *raison d'être* for interpretation. We cannot evaluate interpretation until a clear statement of responsibilities for people in parks is made and the responsibilities of management functions to people are defined.

Interpretation is a people service. In certain respects, interpretation is handicapped in evaluating what it accomplishes for and with people, because there are no evaluation standards for human services provided by park management in general. A human resource management plan is required whereby all park management functions can be evaluated on the basis of management and service activities provided to the human resources of a park. Until visitors as people become legitimate within the management process, interpretation cannot be evaluated.

Elsewhere I have called for a new interpretation. The definition of a new interpretation includes a managed data base and a human resource management plan. Interpretation is a division within parks that is seeking a new identity and a broader role within park management. The new interpretation division can broaden its responsibilities for people and become the custodian of human resource data. As it is successful in establishing criteria for evaluating its contribution to the organization, interpretation will gain recognition and stature as a part of management and enjoy greater access to the decision-making process.

A handwritten signature in cursive script that reads "Donald R. Field". The signature is written in black ink and is positioned in the lower right quadrant of the page.

Part Five

From the Concessioners

Chapter 15

Four Dimensions of Interpretation

William C. Winkler

William C. Winkler is owner of INTERpark, a company that provides interpretive products and services. He was educated in recreation and wildlife management at Colorado State University, and spent forty years in the national parks, first as a ranger and later as a concessioner. He also chaired the Colorado Heritage Council.

My life was shaped, almost by some unseen phototropic force, in the direction of interpretation by one man whose ideas, principles, and energy infected me forever. That man was Ansel F. Hall, first Chief Naturalist of the National Park Service. I joined “the class” at the end of the period, those fast-paced years that had seen Ansel’s concern for museums lead him to interest the Laura Spellman Rockefeller Foundation in providing funds for the Yosemite Museum. He continued to effectively foster the development of museums and educational programs in the western national parks. Through his knowledge, experience, and enthusiasm, he was able, even during the depression years, to contribute greatly to the National Park Service’s educational and conservation efforts.

One who knew him well at that time said of him, “He represented to us the soul and spirit of the national park idea. We knew him as a dreamer, burning with enthusiasm for his innovative ideas, and restless until he could

get them planted into the minds of others with time, know-how, community influence, and money to give them reality.”¹

Most of the museums he established, and even some of the interpretive programs, are still in place today. Reflection on all this raises the question: “What is it that these great ‘doers’ in the world of interpretation have that the rest of us do not have?”

I believe that the great achievers have an understanding of what I perceive as four dimensions of interpretation, which are: good habits, energy, attitude, and communication.

The first of these dimensions, “good habits,” involves self-discipline. When we relegate to habit those annoying details that get in the way of our doing a good interpretive job, we free up more time to be creative. Our lives today are filled with too much detail — weekly, monthly, quarterly, and annual reports, not to mention forms ad nauseum.

The effective interpreter early on develops the habit of communicating with staff, superiors, and fellow workers, as well as with the various publics served by the interpretive programs.

There is the habit of being informed. We live in an informational society. To be effective, it is necessary to be “up-to-date” in most professions. The effective interpreter develops the habit of reading and studying at regular intervals to stay informed.

The habit of personal appearance has a long tradition in the national parks. Neat uniforms and good grooming are expected by our visitors. To appear otherwise is to establish barriers to the successful flow of information. Exceptions to this may be made for some living history programs.

Belonging to a very old-fashioned school, I believe the communications process is a two-way experience involving more than speech and hearing. The eyes affect the communicator and the visitor. Interpreters who talk to their listeners from behind dark-colored glasses are depriving them of part of the story. They suggest that they are hiding, and they are not convincing.

Another habit is effective speech and language development. I believe that the aggressive interpreter should relegate to habit a self-improvement program of speech and the use of the language. This might be a private commitment to vocabulary development and voice use. It might also take the form of involvement with a group such as Toastmasters International. This habit will contribute solidly to improvement of interpretive skills.

The second dimension, the one called “energy,” has many parts. The wise interpreter will conduct his private life so as to leave plenty of energy for interpretation. Excessive partying, day-off activities, and part-time jobs all drain away vital energy.

Energy of the mind is essential not only for meeting the daily programming needs, but for finding future opportunities. Ansel Hall had this energy

of the mind. As an example, he was prepared to utilize the nation's unemployed artists during the Great Depression. When the alphabet agencies were created, he had ready plans to turn this resource into worthwhile programs for the National Park System's museums and exhibits.

Energy of the spirit is essential. Good interpreters believe in what they are doing, and they are self-confident. They believe in the National Park Service (or their company, in the case of concessioners). They refrain from adverse comment about the Service (company) or other branches of government while on duty or with the public in an interpretive setting.

Some people call this energy of the spirit ENTHUSIASM! Whatever it is, it is the greatest power in the world and can be made to move mountains. Whenever it is injected into interpretive programs, it produces results of the highest quality.

Another type of energy not to be overlooked is that of capital and commitment. Both in government and the private sector, it is often necessary to commit capital resources to interpretive programs. In the case of the private sector, such as concessioners, it is important that the opportunity to secure a return on capital be recognized.

Certain resources require the establishment or recreating of environmental surroundings for multi-sensory understanding of that resource. This is often the case with historic sites such as Bent's Old Fort. There are more subtle interpretations such as sleeping and eating within a park, when the sights, sounds, and smells enhance the imagery which lies entirely within the mind's eye. The energy of planning capital investments is crucial and has long-term effects.

Recent surveys indicate that up to 47 percent of visitors anticipate shopping as an important part of their vacation experience. It follows, then, that the types of goods provided by concessioners and Natural History Associations should be carefully selected to fill this need and impress a pleasant experience on the visitor. A souvenir or gift might be the memory trigger to a forgotten but very pleasant vacation interpretation experience.

The third dimension in interpretation is that of "attitude." Develop a problem-solving attitude, and the job becomes easier. A good attitude about the job invites visitor participation, and when visitors "open up," good things begin to happen.

A positive attitude about your employer, either government or private organization, is important. It is entirely inappropriate for interpreters to use their role to express their political views or personal opinions of what is or is not being done within government. The people who play the game — "Well, if the Congress would just give us more money, we could do such and such" — are bound to offend at least 50 percent of their audiences. This is a no-win attitude. Some of the group are bound to be of a different political

persuasion and believe that you should have less, while others might be offended that you have used their valuable vacation time for this purpose.

Attitudes expressed in print, displays, and exhibits are important too. How many times have you picked up a park newspaper only to find it filled with “Do Not Do This and This”? News stories about polluted water systems, irascible bears, car burglary, wild fires, litter, herpes, and hippies form an instant and sometimes lasting impression. The resource we have selected to spend our hard-earned vacation and money on sounds dangerous. Yes, these are problems that must be addressed, but a problem-solving attitude will make it more likely that your message will be kindly received. I like the little trail sign we have seen in several southwestern parks advising us that the rattlesnakes were here first, and we should please share the space with them.

The fourth dimension of interpretation, and perhaps the most important, is the one called “communication.” This is the heart of the subject. Whole libraries have been written about it. Success in communication begins with the recruiting process. Concessioners and public agencies alike should recruit individuals who like people. These persons can then be trained successfully in the many forms of interpreting.

Communicating with all constituencies is critical. An *annual* interpretive plan and schedule should be a basic communications tool. Why is it that interpretive programmers can’t tell you what they have scheduled for next week?

Basic communications skills should be honed into a system based on a clear understanding of who the audience is. Develop a plan of presentation that includes logic with associated flow connections. Listen carefully to feedback and then respond to it. One effective teacher advises, “Never say more than about fifty words without injecting a question”: Do you understand? Am I clear? Why do you suppose? etc. Solicit feedback — bring it out, wrap it up, and produce some conclusions.

All of these four dimensions of interpretation — good habits, energy, attitude, and communication — are foundation blocks that will serve interpreters well into any foreseeable future.

That great American communicator, Will Rogers, in the last speech he ever gave, just before he flew off with Wiley Post, said: “My friends, I don’t know what you do for a living, but I do know one thing. You can’t heat an oven with snowballs. You have to use the firewood of knowledge, love, and belief. You have got to know what is cooking! You have got to love what is cooking! You have to believe in what is cooking! *You can’t heat an oven with snowballs!*”

William C. Winkler

Note

1. Harold and Mary L. Paige, University of California, from an interview with Mimi Stein, June 6, 1980.

Chapter 16

A Concessioner's Viewpoint

John K. Olson

John K. Olson is Director of Marketing and Sales for TW Services, Inc. at Yellowstone National Park. He has held this position for twelve years and has chaired numerous task forces and committees on tourism.

A successful interpretive program should have two primary objectives. Its content should be factual and informative, and it should be interesting and entertaining to the degree that the attention of the audience is maintained.

To evaluate accurately the program content of an interpretive program without survey results, it is necessary to place oneself in the position of the visitor audience. Evaluators from different professional fields will look for specific areas of presentation content. The true evaluator, the audience, may react in other ways.

From a concessioner's viewpoint, the following questions are of prime importance:

Does content provide for a more enjoyable national park experience? The primary goal of any interpretive program should be expansion on the national park experience through the educational process.

Does content increase visitor knowledge? A major criterion for evalua-

tion is whether or not the visitor/audience gained and retained knowledge presented. A purposeful random survey may be the only method of determining success in this area of evaluation.

Is content educational in nature? All interpretive programs are of an educational nature; however, all do not always contribute to the audience's learning process. The presentation should have, as a primary objective, content which contributes to the audience's store of park-related knowledge.

Does content cover the audience's needs or expectations? A general visitor audience may have as many needs or expectations as there are members in the audience. Care should be exercised to make programs as responsive as possible to perceived audience interests.

Will content create a desire for more information? Cross references to other interpretive programs should be incorporated into the presentation to assure that the visitor/audience is aware of these programs and their supplementary nature.

Does content cover the goals of the Park Service? Major points for evaluation are the degree to which the protection of the resource is presented and the effectiveness of the presentation techniques and methodology.

Does content cover all aspects of the national park experience? In addition to the resource experience, the concessioner operations are also a part of the national park experience. In addition to food and lodging accommodations, other experiences should be considered when they are available, such as float trips, horseback trips, boat trips, narrated motorcoach tours and, where applicable, reference to resource books, slides, video programs, film strips, and so on that are for sale in the parks.

Will content extend visitor stay through further awareness of the resource? In many cases, a visitor to a national park resource does not plan adequate time to fully appreciate the resource. Through subliminal techniques, the audience should be apprised of the fact that by extending the visit, they may be able to expand on the national park experience.

Does the content create interest in other national park sites? Depending on content material, reference should be made to other sites with similar items of interest. The visitor should be provided with options to visit sites within the region or in other parts of the country. Reference to the booklet "The National Park's Lesser Known Areas" is a good example. A visitor/audience may be made up of people from all over the world, so reference can be made to a broad selection of sites. If the interpreter knows the audience residence origin, reference can be made to specific appropriate sites.

Will the program encourage visitors to attend additional interpretive programs? This point might be the major evaluation factor. If visitors do not receive what they anticipated, they may not attend another interpretive program, and their failure to do so might be construed as "a low mark."

Is the program atmosphere conducive to success? The setting is all-important for a successful reception by the visitor/audience. When possible, the setting should be similar to the subject content. Visitor audiences are generally on vacation and consider an interpretive program part of an entertaining experience. A campfire or outdoor setting lends itself to open participation, while a more formal classroom setting may inhibit the audience.

The view from the concessioner naturally includes consideration of the question of how paying a fee affects audience reaction to an interpretive program. A visitor audience will react differently to the presentation content of an interpretive service when it has been required to pay than it will if no fee has been assessed.

Visitors who have paid for the interpretive services will expect to receive clearly understandable information regardless of their knowledge level on the subject. The content must be entertaining to the degree that audience attention is maintained at whatever level of participation the program demands.

In a non-fee program situation, the visitor/audience evaluation is a simple matter of attention span. If the attention level deteriorates, the visitors may leave; if the attention remains at a high level, they may stay.

A commercial interpretive program may be developed by a concessioner of a National Park Service site or by a private firm located outside the site. A number of different types of programs fall within the commercial category.

Multi-Media Presentations

If used within a National Park Service site, this type of program would be subject to the evaluation process. The major criteria for evaluation would be factual information and the content as measured against the guidelines of the Service.

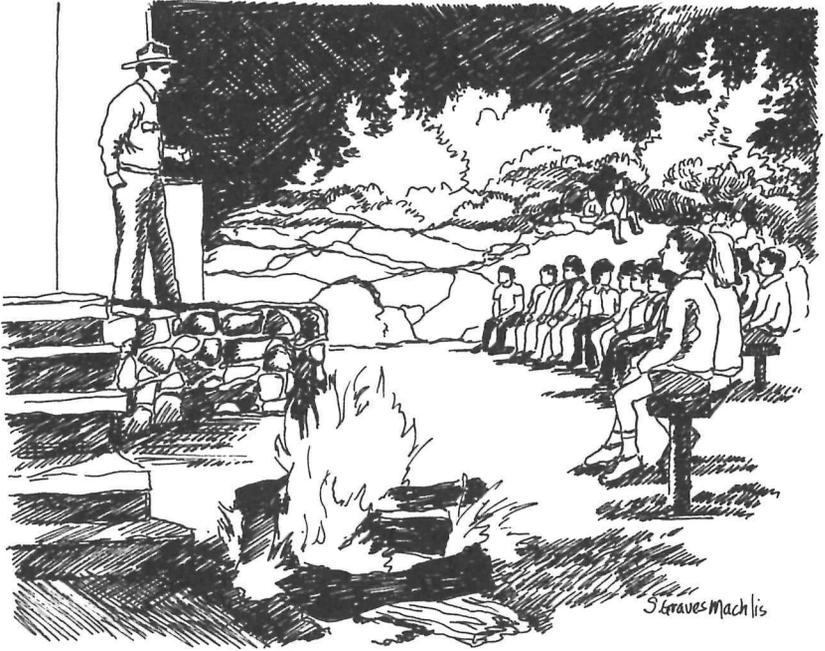
If the presentation is used outside of the related site as a commercial venture, there may be little or no control over the finished product and evaluation becomes a moot point.

Documentary Films

The Park Service has little or no control over the production of documentary films except when produced by a concession company. As with multi-media presentations, factual information and content within the guidelines of the Service would be the basis for evaluation.

Auto Cassette Tapes, Rental or For Sale

This is a popular method of interpretation for visitors who drive to a



Campfire Talk

national park. The National Park Service may become involved with the production of the tapes; however, once they are produced, there is little or no control over the finished product.

The services of professional guides employed by concession companies represent a category that is subject to the evaluation process. The services of professional guides are costly to the visitor, thus the burden of evaluation intensifies. The major points to be included in evaluation of guides are:

1. Accuracy of point-to-point descriptions of the attraction;
2. In-depth knowledge of all features;
3. Historical knowledge;
4. Technological knowledge;
5. Understanding of goals and objectives of the National Park Service (in relation to the concessioner-employed service);
6. Presentation techniques;
7. Interest level of the audience; and
8. Foreign language fluency, if applicable.

With regard to tour escorts employed by private companies (non-conces-

sion), the National Park Service has little or no control over presentation content except by providing factual information when requested for training purposes.

In summary, it is difficult to evaluate the actual presentation of professional tour guides when an audience has chartered either motorcoach or private vehicle services for its exclusive use. A bona fide member of the group audience could be expected to make a fairly accurate evaluation. While training programs for the guide personnel of a specific company may lay the groundwork for evaluation, the visitor audience that has paid for the service will be the "evaluator of last resort."

A handwritten signature in black ink, reading "John K. Olson". The signature is written in a cursive style with a large, looping initial "J" and a long horizontal stroke at the end.

Chapter 17

The Park Service–Concessioner Team

Edward C. Hardy

Ed Hardy is President and Chief Operating Officer of the Yosemite Park and Curry Company in Yosemite, California. He has spent a lifetime in the recreation industry and teaches business recreation classes at California State University, San Jose.

The word “interpretation” means many things to many people. To me, it means providing service to help educate the park visitor about the natural, historical, and scenic values of the parks, with a strong emphasis on what the visitor needs to know to avoid damage to the park resource or danger to himself.

Interpretation, whether live, through electronic media, or in print, is provided by the National Park Service (NPS), concessions, non-profit cooperating associations (like the Yosemite Association), and affiliated non-profit educational groups, whether based in the park (like the Yosemite Institute) or outside, like many college extensions and nonprofit educational organizations. Each of these organizations brings unique talent and organizational skill to interpretation.

An important feature of the contractual relationship between concessioners and the National Park Service is that the NPS serves as the regulator,

auditor, and quality control expert, overseeing all concession programs. In Yosemite, the concessioner (Curry Company) provides thousands of programs a year, from all-day bus tours to two-hour valley tours, evening programs, and printed materials. The Park Service audits all of these and recommends or requires appropriate changes. This partnership serves the visitor and the taxpayer well. There is no cost to the government for the programs; either the user pays or the concessioner provides the service free of charge and absorbs the costs. Quality is controlled by the Park Service regulation and audit function; the amount of service provided automatically adjusts, through the law of supply and demand, to the amount needed.

It is imperative in this relationship that the Park Service exercise strong leadership, insisting, where necessary, that the information needed to use the park safely and without damaging the resource is given priority over simply informative or entertaining material. The NPS also ensures accuracy of information and appropriateness of presentation.

I believe in a “back to basics” approach to interpretation — “the facts, just give me the facts.” Over the past couple of decades, the public has been exposed to enough general environmental education through television and elsewhere to ready them for solid information about park resources, wildlife, and the issues that confront managers. The older approaches that divorced people from nature are at last giving way to newer approaches wherein the problems and techniques of Park Service resource managers are incorporated with an explanation of the traditional subjects such as wildlife and vegetation.

In Yosemite, for instance, a major focus in all interpretation is on bears, which are uniquely interesting to many visitors. Bears are not just explained but are interpreted as they exist, right now, in a national park visited by millions. Can bears and visitors coexist? How? Once visitors understand bear feeding habits and the similarity of their diet to man’s, it becomes easier to communicate to visitors the necessity of denying bears access to garbage, and forbidding handouts. These practices interfere with the bears’ natural foraging, making them dependent on an artificial food source. As a consequence, they spend most of their foraging time in or near human habitations and campgrounds, and gradually become so bold that they are a danger to visitors and, thus, to themselves. Eventually they are targeted for relocation, or worse. If the visitors understand all this, they are not so likely to offer food to bears or to leave garbage out. The bears stick to termites, bees, carrion, berries, and grubs; they remain wild; the public stays safe; and park management goals are met.

I believe it is just as appropriate for concessioner programs as it is for the NPS to stress these topics as long as the concession employee makes it clear that he is explaining NPS policy and practice and that it is the NPS that sets resource policies.

A further role that I believe is appropriate in national parks is to show society at large how it can exist in harmony with the environment, not just in the wild areas where the issues are directly related to the park resource but in the areas developed for visitor use. How is garbage dealt with? Is this a model for society? Are materials recycled so less energy and raw materials are needed by our society, or are they dumped into landfills, further reducing wildlife habitat? If recycling and beverage container deposits stimulate recycling in a national park (they sure do in Yosemite), why can't they become a mainstream solution for all of America? National parks are ideal places to demonstrate the leading edge of environmentally appropriate design and practice, to let the millions of visitors experience the system as they do recycling in Yosemite, and then to explain how the program works so they can take the message home.

In summary, I believe that interpretation in our national parks is adapting to a changing and more informed society — one more concerned about man's place in nature. The sensitive nature of national parks makes them ideal as models of environmentally sensitive management for their own protection and as training grounds for ideas and techniques that can help our society adapt to the limits of land, resources, and energy. The message should be carried by all credible agencies (private or public) with appropriate control by the NPS. All avenues should be used, particularly for orientation prior to the visit, at the start of the visit (papers like the Yosemite Guide available at entrance stations), during the visit, and after the visit, with educational materials obtained in the park taken home for reading or viewing at leisure.

Interpretation, broadly understood, can be of supreme value to our culture.

Ed Hardy

Chapter 18

Evaluating Interpretation as Part of Doing Business

Wally Owen

Wally Owen is President of Peaceful Valley Trail Rides, Inc. in Medora, North Dakota. He is a former environmental and education specialist for the North Dakota State Park Service.

To evaluate properly the role of interpretation in one's business, one should have an overall written policy and procedures manual, as well as a personal and business philosophy that incorporates interpretation. Long-term and short-term business goals must be set and written down. Interpretation must be evaluated separately, but must be a part of the overall objective of the business, both financially and philosophically. It is an integral part of the day-to-day operation of any service within a park or public system.

In our trail ride operation, Peaceful Valley Trail Rides at Theodore Roosevelt National Park in North Dakota, interpretation provides hands-on contact between us and our guests. The guide who is speaking is forced to face the group and be alert to potential problems, loose saddles, nervous horses or guests, etc. This eye contact and attention pays off in fewer accidents and lower insurance rates. The personal touch comforts the visitor and results in greater customer satisfaction.



Horsepacking Trip

When interpretation is provided around corrals, the visitor is more likely to use the nearby incidental services, such as refreshments. Education, a part of any interpretive presentation, imparts a greater understanding of potential problems, needs, and considerations on any trail ride in general and within the National Park System in particular. An interpretive presentation can keep people happily and profitably occupied while their relatives (parents or children) are participating in the paid service you provide.

Probably the greatest return from the provision of interpretation is in advertising. Frequently we have writers from local, regional, and national publications interview us. Outside of our location, one of the main things that impresses them is our conscientious answering of their questions, both outside of and during our interpretive programs, which is really just an elaboration of that response. We could not afford the advertising rates some of these publications ask, but we get the exposure, due in large part to the quality of service we provide. Interpretation is a major part of that service.

A close cousin to advertising is the positive image which interpretation, properly presented, gives you. Local support and the resulting referrals from other area businesses and the park are a direct reflection of the image you provide. An interpretive philosophy as part of doing business can make your

service more of an attraction. A well-done interpretive program gives rise to the best advertising available — word of mouth. When people who have used your service return to campgrounds and other visitor bases, one of the most frequently asked questions is, “What have you seen or done?” If they have had a positive experience with you, they will enthusiastically recommend you to their fellow travelers. There is no better fertilizer for business growth.

Everyone working for or within the Park System has a responsibility to educate the public. The threats to parks are real problems; the quality of the Park System is the basis of our business. To exploit the parks without regard to this truth is a gross negligence toward one’s professional responsibility.

One of the least understood and most complex means of evaluating interpretation is the cost-effective approach. This is due primarily to the initial oversimplification of cost-return when dealing with cost-effective analysis. Cost effectiveness relates to the overall effect of the money invested. Does the investment you make give you the desired return? To measure this return properly, one must have specific goals and objectives, as well as a general business and personal philosophy for the business. Once a philosophy and goals and objectives are established and written down, you can begin the cost-effective evaluation of your interpretive programs. This can be measured by accumulating the hard costs and comparing dollar for dollar. This accountant’s approach is an oversimplified but necessary one. These costs would include: personnel, hours, equipment, additional service costs, and miscellaneous. Returns would include people attending programs and money spent while attending or as a result of having attended programs. Compare the dollar-for-dollar costs to return and you have a positive or negative return.

The most difficult ingredient to measure in a concession is the numbers of people who attended or used your services that are due, at least in part, to the interpretive programs or services you provided. Once overall company policy and goals and objectives are established, this question is easier to answer. The main point in the cost-effective approach method is how effective are your dollars spent on interpretation. Although the hard costs and returns must be considered, the overall effectiveness of the program is much more complex; its analysis involves theory and can only be effectively measured by long-term and short-term goals and objectivity in an overall program for your business. The costs remain the same but the returns now become: management tools, reduced insurance rates, advertising, image-making, park relations, professional responsibility, public education, and use of incidental services.

One can only estimate the financial return accruing from these categories, but the many dollars involved are real.

When employees realize they will be expected to answer questions in a responsible manner as a part of their duties, they object less to the training

and knowledge that prepared them to provide the interpretive service. Insistence on such training also helps in recruiting a better caliber of employee. The employees look at themselves as a part of the total picture and the overall operation. They develop another dimension of themselves for their personal and professional growth. They become more involved in their jobs. This results in greater customer service and knowledge transfer. The employee needs to set personal goals for providing information in a professional way. This encourages the employee to remain for the season to achieve these goals. The guests provide a lot of "That-a-boys" to the employee, which acts as a great motivational tool for management. Visitors are very appreciative of any extra efforts made by an employee. A prepared employee who understands this responsibility to the guests is more comfortable in providing interpretive information.

In general, interpretation requires more time spent at your service. But it also results in greater visitor satisfaction, a better understanding of the need for your service, and more support for it. It meets one's professional responsibility and provides for visitor safety, understanding, education, and enjoyment. All of the above can be measured in financial returns, both long- and short-term. Interpretation separates a park concessioner from outside services. If we did not have something to interpret around us, visitors probably would not be using our service. We must not only take advantage of the opportunity to improve our interpretation but be thankful we have something to interpret.

Wally Owen

Part Six

From the Outside

Chapter 19

Some Notes on Interpretation

Bill Eddy

Bill Eddy is Adjunct Professor of Environmental Studies at the University of Vermont. He has spent twenty-five years in East Africa as filmmaker and educator.

It is my contention that interpretation can provide park visitors with an environment of thought and ideas, and even experiences, from which they may perceive their own very familiar world, perhaps for the first time.

Over the past couple of decades there has been a tremendous increase in the number of park visitors who are, as we would say, “at home” in the “outdoors.” These visitors are actively seeking some sort of backcountry experience with or without the knowledge to make it safe and enjoyable. They may need information and even instruction. But, except for the complete novices, they know why they have come to the park and what to expect of their stay. They will “see” their experience in the context of similar ones elsewhere.

But there are still a great many visitors to parks for whom nature is something they watch on television on Sunday evenings. For them to come to one of the big western parks can be an unsettling experience. They may

have driven a long distance in a brand-new camper. They may have been through the often-trying and unfamiliar experience of being together as a whole family for several days. There is a natural apprehension about being away from the familiar and the predictable. Where will we camp tonight? Will everything go all right? Because they may not know what to expect, they tend to measure their experience always against the world of the familiar. Perhaps this is one reason why so many visitors bring their radios and televisions with them to the parks.

I realize that these are over-simplified profiles of park visitors and that real people are more varied, interesting, and difficult to categorize than this. But I see these profiles as representing the extremes within which interpreters have to work in designing materials.

Certainly all visitors can benefit from informative programs about geology, history, wildlife, and so forth. But there is another need that may be more important in the long term and is harder to define or evaluate. It is to provide through interpretation some way in which the visitor can "see" his own familiar world from the new environment of the park experience.

There is a principle so basic to interpretation, and to all teaching for that matter, that we may not be conscious of it until someone points it out: it is the difficulty of perceiving any environment except from the context of another. There are all kinds of ways of illustrating this principle. Certainly Geoffrey Chaucer could not have been aware that he lived during the Middle Ages. It required the very different perspective that came with the totally different mind-set of the Renaissance before writers and scholars could describe the centuries before as the Dark or Middle Ages.

Children often provide a perspective that is disturbing to those who believe there are few important discoveries left to be made or questions yet to be asked. The late Walt Kelly, creator of Pogo, described how his very young son had come to him one day and asked, "Daddy, why is it that people always build their houses outdoors?" That's a question that provides us with an environment from which we can see the familiar in new ways. It leads to the realization that so much of our perception of nature and man has become divided by a symbolic doorway that leads both out and in. This unconscious and artificial dividing line between man and nature has created a special category of people. Mountain climbing, canoeing, hunting, and fishing have become the domain of those known to our culture as "outdoorsmen." Can you imagine the Bushmen of South Africa calling one of their hunters a great outdoorsman?

The same division, between the natural and the man-made world, has created other categories, too. Nature is beyond, outside, away from us, and

thus takes on all the characteristics of an object, that we, in our wisdom and skill, can manipulate and use, as a tool. By contrast I think of the Rendille tribe in northern Kenya. Over the past three years I have been producing for them what can best be described as experimental interpretive programs on the spread of the desert. This small group of nomadic camel-raisers, who possess a profound knowledge of how to survive in a harsh environment, have no word for “nature” in their language. There is no “it” from which they are separated. I am not suggesting that theirs is some mystical togetherness with natural process. I am saying that there is no environment of thought or alternative experience by which they can comprehend a separate object called nature.

The fullest approach to interpretation involves the shaping of attitudes and values that carry beyond the park experience and whose full impact may not be felt until the visitor is back in his own familiar world once more.

The best interpreters understand this and accept the difficulty, shared with other professions, of not being able to measure precisely what they’ve accomplished. A good teacher may not be able to assess for certain the long-range effect of a course, but he or she is perfectly clear that attitudes are formed in the classroom toward literature or history or science that will last a lifetime. It is a poor minister who prepares a sermon that has meaning only on Sunday in church.

Some interpreters may understandably feel uncomfortable in the role of teacher/minister/guide. It is a role, however, that the visitor somehow expects or needs him to fill. Whether because of the Stetson, the uniform, or the fact that the visitor feels slightly unsure in an unfamiliar environment, the interpreter is viewed as knowing and understanding things that the visitor does not. This represents a tremendous opportunity for the interpreter to influence attitudes and values. I suggest that this projection of expectation by the visitor onto the interpreter is one aspect of the National Park Service that makes it uniquely influential with the American public.

One final thought. I am concerned about the current emphasis on efforts to quantify the kind of interpretation I’ve described. Surely critical assessment of different approaches and techniques is healthy and beneficial, as is an awareness of the importance of mechanics such as posture, delivery, enunciation, and grasp of subject. But these are not interpretation.

I recall a friend of mine who studied the cello with that great interpreter of Bach, Pablo Casals. Each morning they would play together for several hours. Then one day Casals spoke to my friend about music. “The notes are not the music,” he said, “but only the way to the music. Only after mastering the bow, the fingering, and the notes, is one ready for the music. It is then,

Eddy

and only then," he said, "that one may have something musical to say."

The same is true I believe for interpretation. The notes are only the way to the music.

A handwritten signature in black ink, appearing to read "Eddy". The signature is highly stylized and cursive, with a large, sweeping initial letter and a long, trailing flourish.

Chapter 20

Interpretation: More than an Illusion

Destry Jarvis

Destry Jarvis is Vice President for Conservation Policy, National Parks and Conservation Association (NPCA). He has been with NPCA for thirteen years.

Setting aside for the moment the perennial debate over which takes precedence in the dichotomous preservation-versus-use mission of the National Park Service — if one assumes, as I do, that visitor use is appropriate to units of the National Park System — then unquestionably the interpretive program of the National Park Service should enjoy the highest priority relative to other operational activities serving visitors.

It is my firmly held opinion that interpretation should be the highest priority visitor service function in the National Park Service. Unfortunately, interpretation has never enjoyed such high priority, and in recent years it has been relegated to such a low rung on the priority ladder that it is among the very first programs cut when budget or staffing constraints are imposed. Worse, priority is given to meeting the “creature comforts” of visitors, rather than to stimulating their curiosity. To paraphrase Aldo Leopold, the job of recreational engineering is not to build roads into already lovely country, but

to build receptivity into the yet unlovely human mind.

A solid, first-class interpretive program is not only essential to the well-being of the National Park *Service*, but to the National Park *System* as well. In our society, where every important governmental decision has become increasingly politicized, the national parks will be preserved *only* by an understanding public. Furthermore, the general public can gain comprehensive understanding of the values and purposes of the national parks only by experiencing them first-hand, with this experience enhanced by interpretation from an NPS professional.

The importance of interpretation to the preservation mandate of the National Park Service includes not only the need to inform visitors of the facts about a given park, but also the manner in which they should conduct themselves while visiting. Most importantly, interpretation has an affirmative responsibility to accurately place the park in the reality of its surroundings.

On a recent trip to one of our great national parks, I happened to attend an evening interpretive program conducted in the park amphitheatre at one of its most popular campgrounds. During the question-and-answer session following an exhilarating slide/lecture interpretive program about the flora, fauna, and geologic history of the park, a visitor inquired as to why the air had seemed so hazy for the past several days. The interpreter, all too casually, responded "oh it must be the morning mist rising from the river or perhaps wind-borne dust from some nearby sand dunes." As I was seated in the rear of the amphitheatre with the superintendent of the park, he noticed my temper rising at that response and quietly observed, "She knows damn well that the current visibility impairment is caused by air pollutants emitted from copper smelters across the border. I can't understand why she didn't say so."

All too often of late, it seems to me, interpreters are taking the safe route in providing the facts to the visiting public, presenting only basic information about flora, fauna, geologic features, historic events, or park recreational activities. A real opportunity is lost to educate the visitor about the realities the parks face in our burgeoning society. How can the public be expected to care about or to act in defense of the parks if they are unaware of the need? All too often, a visitor leaves the park full of facts, but blissfully ignorant of the myriad park problems. Interpreters have shirked their responsibilities if this reality is not conveyed to the visitor. In fairness, I should state that most interpreters I have known are fully capable of providing this element of reality in their programs, but are seldom encouraged to do so by their superintendents or the higher management of the Service. In some cases they are actually discouraged from doing this type of presentation, or even prohibited. Environmental education should be a mandatory component of every park's comprehensive interpretive program.

The landmark Leopold report of 1963 stated that "A national park should

represent a vignette of primitive America.” The report recognized correctly that this goal cannot be fully realized, but that it can be approached, and stated that “A reasonable illusion of primitive America could be recreated or maintained in the national parks.” Striving for this reasonable illusion is necessary and appropriate for superintendents, planners, resource managers, and maintenance crews of a park and for some of the interpretation. However, interpretation also must serve a “truth in packaging” function, accurately explaining to visitors the reality of the park’s position in relation to modern society.

If an interpreter’s response to a Big Cypress National Preserve visitor inquiring “Why don’t I see a Florida panther?” were that the animal is “nocturnal,” this interpreter would have failed in his or her adherence to the Park Service’s mission and mandate. While this would be an accurate response, any response to such an inquiry should further inform the visitor of the desperate endangerment of the species due to loss of critical habitat by human encroachment in a variety of forms.

One of the best responses of the National Park Service to such a dilemma occurred over the last several years in Canyonlands National Park. Interpretive staff, with the support of the superintendent, developed a display, photo and interpretive material, and oral presentations dealing with the potential impacts of the nation’s first high-level nuclear waste repository which, at the time, seemed likely to be constructed less than a mile from the park boundary. Without overstepping their legal bounds, the park’s interpretive staff conveyed to visitors the likely extent of serious problems to park resources and visitor uses if this facility were installed so close to the park boundary and well within the geologic formation of the Canyonlands features. Unfortunately, this example is the exception rather than the norm for Park Service interpretation.

If the parks are to survive, the Service must undertake a serious reordering of priorities, making interpretation integral to all policies and functions. In order to elevate interpretation to its rightful role, the Park Service must overcome the notion that visitors come to the parks primarily for physical recreation and that interpretation, while a nice extra, is not essential. Quite to the contrary, in my opinion, physical recreation is the incidental value of the parks and has become dominant only because the Service has continued to relegate interpretation to such a low priority for so many years that too few visitors have truly experienced quality interpretation — the kind that can unlock park mysteries and provide a truly transcendent experience of contemplative “recreation.” For too long the Service has allowed the contrast of the parks’ resources with those familiar to the visitor to serve as the prime basis for a park experience. Recognizing that parks offer freedom from technological change and contrast with urban pressures, the Service should capitalize



Endangered Florida Panther

on this opportunity to deliver its message forcefully, accurately, and fully. There is no question that visitors are receptive to Park Service interpretation. In fact, the high esteem and great popularity of the Park Service as an institution should be attributed primarily to the Service's interpretive functions and staff. This is the point at which the greatest positive interaction with park visitors occurs, compared to law enforcement, administrative, maintenance, or resource management functions, which seldom account for direct contact with visitors (at least not in such positive situations).

Among a variety of actions that should be taken by the Service to strengthen the function of interpretation and lift its priority, are the following:

1. Interpretive programs should regularly include a component relating the park and its natural or historic setting to the surrounding lands and land-use practices. Placing humans in their societal relationships with the land is essential to making interpretation relevant.
2. Programs should regularly describe the history of the park, how it came into existence, and how it continues to function in its relations to surrounding communities and land-use activities.
3. The Service should recognize that it has an implicit responsibility for the

deep and broad environmental education of the public. In this regard the operations of the National Park Service should serve as models for environmental citizenship.

4. The interpretive staff should evaluate every management action or practice taken within the park and translate it as a message to the public on its environmental, cultural, or ecological function. As decentralized decision-making and local control continue to gain prominence, the role and responsibility of the National Park Service for the environmental education of local citizens gains increasing importance.

5. If, as Freeman Tilden said, "the chief aim of interpretation is not instruction, but provocation," then a principle function of interpretation should be to educate the visitor on the ethics for his or her actions while in the park, which can be of long-lasting benefit to the visitor in his or her own lifestyle.

6. Perhaps more practically, the interpretive function can serve to educate the visitor on upcoming planning and management decisions in the park itself, and thus can serve as a catalyst for public participation in such park decision-making.

Without strong, active, visible, and vocal public awareness and participation in the various activities of the National Park Service and affecting the National Park System, it will be exceedingly difficult if not impossible for the national parks to survive intact as we head into the twenty-first century. Interpretation holds the key to the future preservation of the natural and cultural resources of the National Park System. The Service must unlock its potential.

Dwight Jarvis

Chapter 21

Market Pre-testing of Interpretation

Tom Christensen

Tom Christensen is Principal/Project Director of Inside Outside in Austin, Texas. He holds a master's degree in community and regional planning. He has worked with the Austin Parks and Recreation Department, Austin, Texas, and has served as Regional Director of the South Central Region of the Association of Interpretive Naturalists since 1982.

March 41, 2026 SMT*

*Standard Moon Time

Site Observation Report

By: United Nations Chief of Visitor Services and Interpretation

Subject: The opening of the new U.N. Visitor Center located on the rim of the largest moon crater.

Audience

The group of visitors on the first day of operations was comprised of two Grayline tour groups from Miami, a Mitsubishi industrial recreation tour group from Japan, two dozen U.S. Con-

gressmen on a social welfare fact-finding trip, and a Soviet trade delegation of cheese manufacturers.

Facilities

The visitor center, designed by a Chinese architect, is of a large wall type building surrounding the Laryes 7 crater on the moon.

Visitor Services

The center offers information on the U.N. system and houses an extensive museum hall that tells in great detail how a U.N. committee developed the Great Wall Center and how the U.N.'s goals and objectives for world peace will be met by the center's operation.

Audience Response

The visiting groups seemed to enjoy their experience at the crater center, but a perplexing pattern of comments and criticism appeared on their response cards.

Sample responses included: Where's the moon? Great slide show about the U.N. Where is the crater? How did the crater get here? Why can't we go into the crater? This place is better than the other Wall of China. The restrooms and Coke machines are everywhere. This was the same show I got at the U.N. in New York. Make good Kremlin site. I have been on the moon for two days and I still haven't *touched* it yet! How did they dig the hole in the middle of the building? What does the crater have to do with peace?

Summary

The general response of this first group of visitors was appreciation for the U.N.'s efforts, but it was accompanied by an insistent note of dissatisfaction over the lack of a "moon experience." The visitors seemed to enjoy knowing more about the U.N., but what they *really* seemed to want was to learn more about the crater and the moon.

The redevelopment of this center, scheduled to take place in 100 years, should consider the desires of various existing and potential visitor segments. The responses of visitors during the next 100 years could be helpful to the next team of planners and designers. It might be wise to consider hiring a moon visitor consultant from Mars to assist in this research effort.

Why Wait To Evaluate?

The cost of constructing interpretive facilities, planning and designing interpretive media, and employing professional interpretive staff has reached the level of a serious financial commitment for any organization. This being the case, and as the preceding fictional account demonstrates, it would seem wise for all interpretive operations to consider time-tested techniques to correct costly mistakes before they are built, or before staff are hired and trained.

Many interpretive operations have made great strides in the last several years in statistically identifying their user groups and in creating a data base that provides information about different user characteristics.

Market pre-testing can use this information to make the planning process cost-effective by improving the success rate of new and/or redeveloped interpretive services and facilities.

Market pre-testing methods allow planners, managers, supervisors, and interpreters an opportunity to test interpretive facilities and services while they are being planned. The testing focuses on soliciting or recording the response to an interpretive feature or service from those who would actually consume the service.

Market pre-testing can take many forms, depending on the desired level of response and the potential cost of any errors in the planning and design phases. These methods could include staff role-playing, focus group techniques, and actual sampling of the typical market segments of the user population.

Methods

Role-playing (Low cost)

This technique utilizes the existing staff of a particular facility, the members of which will most likely have the highest level of understanding about the user characteristics at that site. One staff member is chosen to be the interpreter to present the program and/or tour of a facility. One other staffer is assigned to act as the recorder of responses to the service or facility.

The remaining staff members are assigned to the roles of particular user

segments. The impressions, responses, and perceptions of these “users” are recorded as the tour or program proceeds. Summarization of this information is then used to adjust and refine planning documents to more successfully meet the desires of the anticipated users. This technique has the lowest cost of testing options but includes the biases of participating staff.

Focus Groups (Low to moderate cost)

This market testing technique currently enjoys great popularity due to its relative low cost compared to major sampling and survey techniques. The focus groups consist of individuals selected or solicited from various market segments appropriate to the interpretive facilities or services. This small group (six to twelve people) is brought together in a comfortable space (with a filming or observation area available) to view a new service or facility, and the presenter solicits their responses.

This method could be used during peak season periods to test new facilities and/or services being planned for ensuing seasons.

Sampling (Low to high cost)

This approach generally consists of a mail, phone, or personal survey, in which a number of individuals are randomly selected from the known user group or groups and asked to respond to the new service or facility. When mail or phone surveys are used, an adequate list of all users must be available. In the case of personal interviews, the survey could be conducted at the site with participants in current interpretive activities.

This technique also could include testing on a limited basis for purposes of refining a given service to be produced the following year.

Presentation Techniques

A host of presentation techniques for market pre-testing are available to decision-makers for interpretive services, the choice depending on the cost implications of a serious mistake. These techniques include:

1. Questionnaires with supportive material;
2. Site tours (by staff or planners);
3. Use of planning visuals (at the schematic phase);
4. Slide or video reproduction of a program, facility tour, or schematic plans;
5. Actual presentation of the program; and
6. Video tours utilizing scale models of the site and facilities.

Benefits of Pre-Testing

The major benefit of this evaluation technique is the potential financial advantage of lowering overall cost for interpretive services and facilities by increasing the rate of success.

The inevitable process of creating “new” and redeveloping the “old” is perhaps the greatest expense to any delivery system of interpretive services. The evaluation of these services by its user before major mistakes are made can lead to substantial cost savings as well as increase the overall effectiveness of the organization.

The role of interpretation in conveying the ideas of our history and environment is much too important *not* to utilize modern market pre-testing techniques. The use of these techniques will cut operation costs, increase user satisfaction, improve management objective success and, most importantly, establish more effective ways for people to interact responsibly with their history, culture, and environment.

A handwritten signature in cursive script, appearing to read "Tom Christensen". The signature is written in black ink and is positioned to the right of the main text block.

Chapter 22

Only the Individualist Succeeds

Michael Frome

Michael Frome is an author and Visiting Associate Professor of Wildland Recreation Management at the University of Idaho, Moscow. He has written numerous books, including Promised Land — Adventures and Encounters in Wild America, Strangers in High Places, Battle for the Wilderness, and Rand McNally National Park Guide and has a forthcoming book on the future of the national parks.

My evaluation of the effectiveness and importance of interpretation begins and ends with the interpreter. Real success or failure, after all, comes only from within. Society, or even the best of institutions, cannot impress it from without. With all credit to the traditions and creed of the National Park Service, only the individualist succeeds, for only self-realization is success.

Joseph Wood Krutch, author, critic, and lover of nature, enunciated principles of individual rights and individual dignity. He considered America's problems basically philosophical and spiritual and felt that we must find the answers inside ourselves before looking for a political solution. I myself believe that both processes should be concurrent, but I respect and admire Krutch and would not want to make him over. His writing was moving and powerful; he championed individual freedom and the right of self-expression.

Krutch observed and was distressed by the degradation of the southwest

desert and by the galloping urbanization of Tucson, where he lived his last year, but an urge to do something about it in an organized way lay beyond him. The closest he came to activism was in his involvement in the Arizona–Sonora Desert Museum, where he shared the efforts of Arthur N. Pack and William H. Carr to display and interpret desert animals in conditions similar to their native environment.

I appreciate the role of such facilities, with their professional naturalists at work, yet I lament their studied avoidance of critical issues across the fence. Or, as the director of the Palm Springs Desert Museum — a classy oasis filled with lovely natural science exhibits, yet surrounded by a deteriorating and polluted environment — told me in 1978: “Our board doesn’t want us to be involved.”

Justice William O. Douglas was subject to more powerful pressures than any museum director or park interpreter. His detractors detested his far-ranging activism. Why, they demanded, couldn’t he exercise judicial restraint and propriety? He brushed them off, unbending: “A man or woman who becomes a justice should try to stay alive; a lifetime diet of the law turns most judges into dull, dry husks.”

(Which recalls John Muir’s warning that “dry words and dry facts will not fire hearts.” He commented further, “In drying plants, botanists often dry themselves.”)

William O. Douglas followed his own star. On January 20, 1980, shortly after his death, the *Washington Post* paid him editorial tribute:

Whether sitting on the bench of the Supreme Court, where he served longer than any other justice in history, or before a campfire in a desolate wilderness, he knew what he believed and what he wanted.

In 1972 Justice Douglas issued his historic dissent in the *Mineral King* case (*Sierra Club vs. Morton*). The immediate question at hand was whether the *Sierra Club* merited legal standing to be heard in court. The majority ruled against it, but Justice Douglas in his dissent noted that a corporation or even a ship, an inanimate object, could achieve standing in the adjudicatory process; then continued:

So it should be as respects valleys, alpine meadows, rivers, lakes, estuaries, beaches, ridges, groves of trees, swampland, or even air that feels the destructive pressures of modern technology and modern life. The river, for example, is the living symbol of all the life it sustains or nourishes — fish, aquatic insects, water ouzels, otter, fishers, deer, elk, bear, and all other animals, includ-

ing man, who are dependent on it or who enjoy it for its sight, its sound, or its life. The river as plaintiff speaks for the ecological unit of life that is part of it. Those people who have a meaningful relation to that body of water — whether it be a fisherman, a canoeist, a zoologist, or a logger — must be able to speak for the values which the river represents and which are threatened with destruction.¹

Justice Douglas failed to include interpreters in his list — understandably given the context of his statement — but I certainly would include them in my list. My evaluation of effectiveness and importance furthermore equates the individual interpreter to his or her meaningful relation to the river and all other bodies of nature and the extent to which he or she speaks actively for values threatened with destruction.

It isn't enough to view national parks, as Enos Mills did, as "the school of nature." It isn't even enough to accept Freeman Tilden's uplifting idea, as expressed in *Interpreting Our Heritage*:

Thousands of naturalists, historians, archeologists and other specialists are engaged in the work of revealing, to such visitors as desire the service, something of the beauty and wonder, the inspiration and spiritual meaning that lie behind what the visitor can with his senses perceive. This function of the custodians of our treasures is called Interpretation.²

That part of it is easy. The interpreter's greater challenge is to contribute consciously and conscientiously to making reserves — parks, forests, wildlife refuges, or whatever — into genuine demonstration models of ecological harmony; imparting to visitors an understanding of the natural life-support system; and, no less important, taking the message of the reserves from the actual setting to the people where they live.

"The biggest problem has been, and will continue to be, convincing the public of the need for sound management, protection, and preservation," Russell E. Dickenson told me soon after he became Director of the National Park Service. "If we fail to make Americans aware of problems facing the national parks, and to involve them in choosing the right solutions to these problems, then we are failing in our responsibility as stewards of these public resources."

In this same vein, a lesson I learned from Horace M. Albright years ago is that the act of establishing a national park is not enough in itself to make it work. National parks, national forests, national wildlife refuges, state parks, state forests, county and city parks — not a single tract of public land has

its future assured simply with a label, or with a staff of paid professionals, or with highly motivated interpreters pointing out the beauty and wonder of nature. What is most needed, as Horace expressed it, is “wider support from more citizens who will take the trouble to inform themselves of new needs and weak spots in our conservation program.”

William H. Ehorn, superintendent of Channel Islands National Park, before a conference on national parks research at Davis, California, in September, 1984, echoed this idea:

The public needs to be constantly and consistently dealt with and consulted about the purpose and importance of our national parks. An excellent public relations program is necessary to sell the park and its management programs. This needs to be done on all levels (local, regional, state, national, and international). Once the public becomes aware and understands our mission, it becomes easier to accomplish our research and resource management objectives.

Yet national parks cannot be uncoupled from the world around them. They cannot endure as valid ecological sources of inspiration and spiritual meaning in surroundings of worsening environmental decay. They may last as national playgrounds and flawed memorials to times past, with interpreters valiantly trying to communicate with huge crowds scarcely aware of what might have been; but the preservation essence will diminish until it disappears in a period not far off.

Human restraints and a change in direction of society are essential to the survival of nature reserves. Too many people are visiting the national parks at the same time. Because they are unprepared for their experience, they do the wrong things, damaging the resource and failing to derive the vital lessons that nature has to teach.

I recall the surge of interpretation in national parks during the early 1950s. People were flocking to the parks in the post-World War II travel boom, and these people had to be cared for. Along with old guided walks and campfire talks there would be visitor centers. Instead of a naturalist out on the trail with a handful of people, an interpreter at the visitor center could process ten times or a hundred times as many. There was little talk about limiting the number of visitors to the carrying capacity of an area, or about taking the message of the parks out of the parks so that Americans would understand why they must not overrun them. It seemed too much to expect that people would actually prepare themselves for entering into the hallowed places, but interpretation became the means of a quick fix.

What we need today is a revolution of thought to challenge and revamp old institutions: medicine, religion, economics, education, science, communi-

cations, and natural resource management. Today's conditions demand a critical examination of established ideas and ideals, of old national goals and traditional personal goals measured in materialistic terms, alongside new social standards based on humanism and naturalism.

Nuclear weapons will never force nations to join in recognizing the limitations of a fragile earth. But park interpreters are uniquely qualified to lead in pledging allegiance to a green and peaceful planet, based on the concept of husbanding and sharing resources, instead of allowing them to be cornered and squandered through superconsumerism and waste. In altering the lifestyle that makes us enemies of ourselves we sacrifice nothing; we gain everything in quality of life.

I know parks people, interpreters and others, who feel this way. But their opportunities for expression and leadership are circumscribed by institutional "team-play," premised on a rule that the higher up the ladder a player advances the more political, cautious, and less natural he or she becomes. Preservation of status becomes more important than preservation of resource.

In 1983 I shared an interesting exchange of correspondence with Director Dickenson. I wrote to him in part as follows:

I wonder with apprehension about the old spark that made the National Park Service such a great institution. I can tell through personal encounters that many in the ranks have allowed themselves to be frightened and intimidated. They consider old friends and defenders of the parks almost as enemies — because we must insist on preservation principle above compromise and expediency.

The director responded thoughtfully:

Those of us who are public employees will always have to be mindful of the tug of conscience and adherence to principle vs. confrontational declarations. There are ways in which interpreters, as public servants, can inform the public of park protection issues and options, without the need for figuratively falling on one's sword, and we shall try to continue to get that message across. But, if at long last, some outrageous proposal or situation requires it, there is the honorable course of open dissent and departure. I simply take the position that talented people should not accept it lightly. Many conservation heroes and heroines undoubtedly will always arise outside the public service, and that ultimately may be the best justification in attempting to energize today's and tomorrow's park interpreters...

That sounds fair and reasonable, but whether it's right is something else. On second reading, it seems to me to demean public service. A public employee under our system, after all, works for the people under law. That is where his or her loyalty rightly belongs, which is why the Code of Ethics for Government Service opens with a declaration that: "Any person in government service should put loyalty to the highest moral principles and to country above loyalty to persons, party or government department."

Freedom of expression needs recognition and defense as an essential of good government. Diversity of opinion and even dissent should be allowed to circulate within an agency, as well as from without, like a danger warning. Insistence on respect for ecological values, no less than disclosure of waste and abuse, should be taken as a commitment to make government more responsive, more worthy of trust. The old system of power based on authority alone is dysfunctional, as evidenced by the widespread sense of powerlessness and the inefficiency of institutions. The idea of dominant authority may create an illusion of invulnerability, but living systems function synergistically, not in response to managerial authority. The power of open systems is in openness, interaction, and flexibility. It leads to cooperation instead of competition, to the creative use of the best everyone has to offer.

As I mentioned at the outset, real success or failure comes only from within. Freedom of the individual, with the right of self-expression, is sacred. Interpreters must have this freedom. They must feel this freedom as a need, like water or food, to sustain the spirit as well as the body.

This sensitivity doesn't come easily. It requires consistency and cultivation. Solitude is most important, to be alone with nature, unconditioned by refinements of modern life, preferably in a lonely place with time for contemplation and self-examination. That is what national parks ought to be for, and the kind of experience park interpreters ought to pursue to develop consistency with their message to visitors.

In the winter of 1982 I derived considerable guidance and direction from a visit with my friend, Sam West, then a river ranger at the Grand Canyon. Sam, I thought, was in control of his life as much as anyone can be, living simply, without craving superfluties. From partway down the trail inside the Grand Canyon, Sam one day pointed out the sacred mountains of the Navajo and Hopi peoples visible more than a hundred miles away. To one who releases the barriers of his mind and allows perceptions of spirit and sacredness to penetrate and register, life surely must take on broad dimensions.

"Once you're on the path," said Sam, "you see yourself with clarity; you become friends with yourself. You decide that material wealth isn't important. You become available to other people. Once you start tuning in to who you are, then it's much easier to relate to the elements, the powers that exist."

After fourteen years as guide and river ranger, Sam became program coordinator of the Open Center of New York. Part of his work is guiding trips to the Himalayas and the Grand Canyon, interpreting those areas in a way that helps people to feel part and partners of the universal design.

Another friend, Michael H. Brown, a psychologist, conducts wilderness vision quests that help "explore and develop valuable human resources which lie dormant in us all."

"It is time to speak openly and with a clear voice about the spiritual dimensions of our contact with the natural world," Michael declared in a paper presented to the Third Wilderness Congress in Scotland in October, 1983. "It is time to deliberately focus on and consciously work toward the constructive discovery, exploration, healing, enrichment and growth of the human spirit."

These approaches belong in interpretation and in the personal lives of interpreters. The true believer can work miracles after once developing a sound internal system. The best evaluation begins inside the interpreter, with the setting of personal standards and goals based on the idea that generations hence there will still be nature reserves reflecting a healthy human condition.

Michael Frame

Notes

1. Justice William O. Douglas, Supreme Court of the United States, *Sierra Club vs. Morton, Secretary of the Interior*, April 19, 1972, dissent, pp. 2-3.
2. Tilden, Freeman, *Interpreting Our Heritage* (Chapel Hill: University of North Carolina Press, 1977), pp. 2-3. Reprinted by permission.

Chapter 23

Park Interpretation: An Evaluative Process

Margot J. Silverman

Dr. Margot Silverman is Principal of Miami Springs Elementary School in Dade County, Florida. She has written a manual for administrators in Dade County Public Schools about camping and, with ranger participation, has created mini-glades on school sites. She has been camping for fourteen years with families and sixth graders.

I wanted to scream: I did not dare. Thirty exuberant sixth graders were sloshing before me through marl and water, cavorting as if they were *not* sinking to China, footsteps hindered only by fragile limestone beneath, some of them with hair and clothing streaming with mud. Frozen, sinking further until knees were covered, heart beating so wildly the sounds of even sixth graders were muffled, I could hear my prayer:

Dear God, if you'll just help me out of this one I promise NEVER to come here again; and, oh, God, how could you let such a good educator die out here in front of sixth graders yet... what will the parents say?... Oh, God, will I ever see my own kids again?

Stark terror! Then hands began pulling me from either side. The ranger had sent back two helpers. Through the panic I heard them say, "C'mon, Dr.

Silverman, we'll help you!" *Girls*, yet; she sent GIRLS to help me.

I heard myself blurt, "I'm so scared; I'm so scared!" And the soft voice of Lisa replying, "I know! I was too, but it's *fun* now! C'mon!"

And "c'mon" I did!

Now as if only two or three years old, I do look forward to that special feeling of the Glades, to be wet and dirty, to experience what's under the concrete city jungle, to reach small islands in the sea of grass, to feel the ridges of my boots and the squish of water running through the canvas tops, to wonder at airplants tinged purples and pale pinks, and pray again with equal fervor:

Thank you, God, for getting me away from my PR bulletin, budget memos, staff evaluations, and no-win telephone calls. THAT is only temporary and *this*, dear God, is as enduring as your spirit!

To single out the significant to oneself, to stress what one thinks is important or significant to others is at once evaluative. So then one might ask not *if* an evaluation of interpretive parks services is needed, but whether those interpretive (and thus evaluative) services are truly significant to other than interpretive staff selves! How closely do the glasses of the interpreter fit the viewing of the visitor; is the fit good? Does the interpreter leave enough space for the viewer to question and have satisfied his own needs? Is the interpreter overwhelming the space of the viewer by standing too close? Are vocabulary choices harmonious with those of the viewer? Is the visitor being overloaded with information about questions he never asked? Is the interpreter's selection of interpretive "instances" user friendly?

Furthermore, what is the impact of these interpretive services on the individual at the time of immediate experiencing and at the time of later contemplation? What changes in imagery, sensing, skills of observation, classifying, hypothesizing occur within the park's client?

Benchmark:

Is the interpreter able to "interpret" the park within the conceptual framework of the visitor?

Does the interpretation interfere with or enhance the visitor's view of the natural setting?

The darkness of the Everglades had surrounded us; the warmth of the fire made our circle as closed and secure as if a comforting someone had tucked us in at the close of the day. Old! My old body hurts! How good it is to be past packing the ice chests, hauling duffels, fielding parents and prescriptions,



Everglades National Park

and worrying wait-a-minute, *did* I pack the extension cord! The ranger had just finished the evening program and the thirty of us were, for this short instant in our lives, together in a way we would never repeat. I watched the faces around me and asked across the darkness, “Well, how do you feel this first night in the Everglades, away from your families and your own homes?” A long pause, and then one began to speak, “I look at the stars and I listen to the ranger and I’m zipped up in my all-weather, nice and cozy, and I feel the stars down close to me and I think I’ve never been so free in my life.... I don’t have a care in this world, tonight...” This, a simple statement from a sixth grade manchild who had threatened suicide when his own beloved teacher had succeeded in taking her life — a child of great introspection, deep caring about earth-wide wrongdoing.

Benchmark:

Has the interpreter extended the range of feelings, sensitivities of the visitor?

How significantly different are these sets of experiences from the visitors’ usual life experiences?

The final benchmark involves personal changes of an ongoing nature. The physical shock of nature experiences as opposed to the turbulence to which the visitor may be accustomed at home and at work often give rise to heightened esthetic awareness and cause altered physical states in the visitor. But the most lucrative-to-self benefits accrue as feelings, attitudes, and core knowledges combine and cause the individual to shift — into action! To assess interpretive program impact, then, means selectively tracking — visitors in their familiar environs, sifting through words and actions, to find increased commitment to environment enhancement.

Benchmark:

Has the interpreter aroused a level of commitment to natural habitats, causing participant changed behaviors?

Has the interpreted experiential learning caused individual creature responses after the participant returns to his familiar environment?

Public school sites offer many opportunities to document changed commitments resulting from experiential field studies, camping, and park outreach programs:

1. Is there a growing number of additions to the school's media center, that is, films, books, slides, picture studies featuring environmental concerns? Consult inventories, dates of purchase. Are textbooks and classroom materials reflecting a changed valuing of the environment? Check lesson plans, school listing of objectives.
2. Are students and teachers studying outdoors in their own communities for the purpose of noticing threatening urban practices that could destroy fragile balances of nature? Check school field trip log; interview teachers, students; read student writings.
3. Do teaching staffs continue to explore information about the parks through interpretive services? Is there a developing colleague relationship between teachers and interpreters? Do teachers actively plan with interpreters that experience needed for *this* year's group or is the planning the sole responsibility of one party? Do both interpreters and teachers feel a personal sense of growth? Consult the school request logs of interpreters; interview sampling.
4. Is there within the school environment idiosyncratic, creative expression indicating personal synthesis and evaluation? Possibilities: a school begins a small museum of natural specimens; replication of natural habitats and species begins on school campus; a photography show highlights individual perceptions of the environment experienced; camping occurs on school site; storytelling develops utilizing mythology, ancient cultural land use. Document through school site observation.
5. Are the staff and students making intuitive leaps in concern for the welfare of humankind, global problem-solving, a reaching out to other environments to see our cultures' impact in the world? Are students/staff able to transcend present stress to a feeling of inner peace? Is a feeling for inner peace translated into a desire for world-universe quietude? Just because it may be hard to document doesn't mean we shouldn't look for it! Try looking for world studies, traveling interests, clubs for concerted action in the name of common good, letter writing to influence others.

May *Their* best selves allow *Our* selves to come out and experience the world in new ways.

Margot Silverman

Part Seven

Conclusion

Chapter 24

Toward a Policy for Evaluating NPS Interpretation

Gary E. Machlis

The preceding essays present a diversity of views on evaluating interpretation in the National Park System. What consensus emerges, and what opportunities for action are called for? This brief conclusion attempts to synthesize and critique the various viewpoints.

While the authors seem to identify similar things as interpretation — nature walks, campfires, films, and exhibits — they differ on the “occupational metaphor” for all this activity. That is, they do not agree on what kinds of work interpretation is like. This is not a minor difference, but a fundamental one. Dentists clean our teeth and repair our bridgework; they behave like doctors rather than repairmen, and most of us would be shocked if they didn’t. Occupational metaphors guide our expectations about the work we do and what we expect of others.

From the authors of the preceding essays, it’s clear that there is no single vision as to what interpretation is all about. Three distinct metaphors emerged

from the essays. The first is that interpretation is an *art*. One author states:

Looking at, listening to — expressing — an interpretive program
is much like experiencing a work of art.

Others use artistic images — poets and musicians — in their essays. This is certainly not a new notion; Freeman Tilden, writing in *Interpreting Our Heritage*, had similar ideas.

What is interesting is that while several of the authors called interpretation an art, they shied away from labeling interpreters as *artists*. This may be a reluctance to carry the metaphor to extremes; to be an artist in a modern organization, especially a government agency, is to be organizationally at risk.

Yet there are historical and contemporary examples. Roosevelt's New Deal agencies employed America's painters and poets. Support of the arts by modern corporations, as well as the public art movement, suggests that interpretation as an artistic activity within an agency like the National Park Service is possible.

But this approach far from dominated the essays, nor even one of the particular viewpoints. A second occupational metaphor is more common: interpretation is *management*. Or more precisely, interpretation is a function of park management and gains its purpose from serving management goals. One author argues:

Any interpretive program that does not address a management concern is simply entertainment, and therefore inappropriate from a cost-effective view.

Hence, the objectives of NPS interpretation are to be set by the management needs of the Service, from reducing impacts upon the resource to solidifying public support for the mission of the agency. Several authors saw this approach as beneficial to interpretation as an organizational unit, and a few claimed it to be crucial:

If interpretation is to re-emerge within resource management agencies like the NPS, it must control a sector of information that is required within management plans or that must be discounted by the agency.

This argument was not restricted to any particular viewpoint, and was expressed by field interpreters, managers, and academics. Several of the citizen-essayists called for interpreters to educate the public as to threats to the parks, lack of funds, and so forth, so that public action would occur. This

is the same management metaphor, only the objectives are set by a different crowd, thus are somewhat different.

A third and intriguing approach was that *advertising* could be interpretation's metaphor. A few authors saw advertising as the effective persuasion of the public, and argued for interpretation to learn from this commerce. One writes:

Interpretation in its persuasive sense, is similar to advertising. It "sells" such items as environmental concepts, and attempts to persuade visitors to "buy" products like conservation processes.

Others called for a borrowing from market-testing methods, and several concessioners argued that a good interpretive program is good advertising — for the parks as well as their services.

As in their definitions of interpretation, the authors of these essays were not unanimous concerning the need for formal evaluation efforts. A majority gave reasons why evaluation is critically important, and urged the NPS to proceed. The reasons were varied. Some argued that evaluation would be valuable in the political process, and that funding for interpretation will in the future depend on management accountability and the quantifiable justification of programs. One author wrote:

The cost of constructing interpretive facilities, planning and designing interpretive media, and employing professional interpretive staff has reached the level of a serious financial commitment for any organization. Perhaps it would be wise for all interpretive operations to consider time-tested techniques to correct costly mistakes before they get built, fabricated, or hired.

Others saw evaluation as a tool for managing employees, providing valuable feedback to interpreters and helping them improve their craft. Noticeable was the fact that the concessioners writing here supported the evaluation of concession-operated interpretive programs, on the basis that improved interpretation is good for business.

Not all the authors were so sure that formal evaluation could be or should be undertaken by the National Park Service. Several urged a programmatic realism — evaluate only that which you can control and therefore improve. There was a concern that simple criticism could be substituted for constructive evaluation, and that the NPS would suffer. One author wrote:

In evaluating the role of interpretation in the National Park Service, one must move cautiously and with humility. After all, this agency

was first in the field and has maintained a tradition of high quality programs, except where recent austerity in funding has caused some lamentable slowing of forward motion.

And, as one would expect with such diversity of authors, a minority strongly felt that formal evaluation of interpretation was either impossible, or at best ill-advised. One author pointed out that interpretation is only one of many influences on a park visitor, and that simple models of the interpretive process in parks are extremely naive. He warned:

When evaluation of interpretation moves from the gut-feeling level to the more "scientific" approach, the amount of time, energy, and monies required proportionately increases ... It would be a grave error to do a "budget-trimmed" study with undeveloped methodology which would result in unwarranted generalizations. It would be wiser and more effective to trust the accumulated wisdom of skilled and experienced workers in the field.

This idea, that when interpretation is effective interpreters can *feel* it, was shared by several of the authors. Their arguments had a similar logic: the purpose of interpretation is to provoke a change in values, to make visitors *feel* something, so if interpretation is successful the feedback should likewise be intuitively felt. One author wrote:

Frankly, I am not certain that it is possible to realistically measure this most important function because feedback is so rare. However, I know that it does occur and the occasional deeply felt expressions of appreciation from people with tears in their eyes, or expressions of joy on their faces, have done more to convince me that interpretation is worthwhile than all the formal evaluative systems could ever possibly do.

This is a far cry from the author who suggests "If attendance increases and more dollars are collected, this certainly can be considered a legitimate evaluation of interpretive efforts."

This extreme variation in opinion has several important consequences. While the NPS can take pride in the openness and diversity of viewpoints, arriving at some consensus toward evaluating interpretation will be difficult. Previous studies of evaluation programs highlight the necessity of general agreement among participants. We can hardly expect interpretive evaluation to be helpful if interpreters, their supervisors, park superintendents, and concessioners are hostile to the idea.

To make matters more complicated, there are philosophical differences within each of the viewpoints voiced in this volume, and any meaningful consensus must occur among interpreters at the field level, *and* among their supervisors, *and* in the regional and national offices. There is comfort in the fact that all the authors share a high opinion of interpretation, consider it important to the mission of the National Park Service (though they differ on its priority), and consider interpretation's impact upon the visitor to be of critical importance. There is, at the least, a core of agreement to build upon.

What then can we do?

A modest first step is the realization that all three occupational metaphors — interpretation as art, management, and advertising — have implications for evaluating interpretation within the NPS. If interpretation is art, then its practitioners may feel most comfortable with park critics, peer reviews, and other, more personal forms of evaluation. A few authors claimed that if interpretation is an art form, it cannot be evaluated. Here they may be wrong: evaluating art may be personal, but art criticism exists and often is effective in separating good art from bad. Allen Leepa, an important critic of contemporary art, explains:

The functions of the critic, then, are to observe, describe and reveal — as accurately as possible — what the artist is trying to say and to show how he does or does not succeed in accomplishing his goals.

The management metaphor has its own implications, and evaluation efforts that come from this rationale are likely to emphasize objectives of the organization over those of the interpreter. Several of the authors share very specific criteria that could be used — reduced environmental impacts, economic benefits, support for the agency, and so forth. This form of evaluation has its problems as well. For example, it is difficult to identify the role of interpretation in engaging popular support for the Service; many other factors are involved. Yet the opportunity for management-oriented evaluation should not be ignored, and the review of literature provided in Part One of this volume offers convincing evidence that such evaluation is practical.

The advertising metaphor, though not fully developed in the essays, leads to evaluation based upon the consumer, in this case visitors to the National Park System. One author, who could be writing about market-testing in general, states:

A good interpreter will give as much care to finding out with whom he is talking as to what he might be saying to him.

This kind of evaluation offers creative, if difficult, alternatives — from pre-testing programs as Hollywood market-tests its movies, to long-term studies of behavioral change, attitude shifts, and visitor satisfaction.

So the dilemma of how to evaluate interpretation in the National Park Service revolves largely around the definition of what interpretation is supposed to be. This is a policy choice, albeit an evolving one, and it is not likely that one of the occupational metaphors will easily dominate the others. A realistic approach may be to work slowly toward a consensus at all levels of the Service, and develop alternative techniques of evaluation that correspond to each of the perspectives. Once implemented, the act of evaluation is likely to lead to even further consensus, as interpreters find the results useful and stimulating, and managers find their staffs challenged and improving. I hope the essays in *Interpretive Views* further the effort.

Interpretive Views

With a Foreword by William Penn Mott, Jr.

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