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A CONCEPTUAL ANALYSIS OF
'ENVIRONMENTAL INTERPRETATION'

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Edward Dennis Makruski, B.A., M.A.

* * * * *

The Ohio State University
1978

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Richard Pratte
Adviser
College of Education
To my son, who deserves more than a dedication for having had to suffer the neglect that my doctoral studies entailed.
ACKNOWLEDGMENTS

I would like to express my gratitude to the members of my Reading Committee, Professors Gerald Reagan and Robert Roth, for their help, and especially to Professor Richard Pratte, who provided assistance far beyond the call of duty. In addition I would like to thank Professor Gabriel Cherem for his assistance in the early stages of this study.

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CHAPTER I

INTRODUCTION

The Problem

Numerous writers have expressed concern over whether or not environmental interpretation is also environmental education, or for that matter, whether it is educational. For example, William E. Brown writes, "In traditional terms, interpretation is a form of education. Its practitioners educate the public."¹ Freeman Tilden seems to take a similar view, and writes that, "[interpretation is] An educational activity which aims to reveal meanings and relationships..."² even though a little later he seems to have changed his position somewhat. We find him saying, "We have already given up the notion that Interpretation, in the sense that we are employing the word, is direct education."³ Interpretation, for Tilden at least, is education, but not "direct education," whatever that might mean. But there is reason to believe that some writers think that education and interpretation are not the same at all, that they are quite distinct. For example, Grant Sharpe writes, "Education and interpretation will involve..."⁴

³Ibid., p. 27.
as though they were two different things. Other writers maintain that education and interpretation are manifestly distinct. Gabriel Cherem, in his paper *The Environmental Interpreter: New Frontiers*, maintains that they are different, and portrays them as distinct, so that there is environmental education, environmental interpretation, and environmental communications, all of which have to do with "environmental learning." Cherem, in that paper, takes education and schooling to be synonymous, and thus sees interpretation as something quite apart from education.

5A distinction in use such as this is some evidence that there is a conceptual distinction as well. Indeed, since the expression seems to make sense, and is not redundant, it would seem that education and interpretation are not exactly the same thing, although they may overlap.


7Related to this I will deal with a particular problem that I call, perhaps somewhat facetiously, "Cherem's Problem," which stems from a discussion that I had with Prof. Cherem (then of The Ohio State University, School of Natural Resources) in the Winter of 1976. The problem is this: given that we might want to label three interlocking circles and a square drawn around them in such a way that the labels clearly indicate content and relationship, What ought the labels to be? In the parentheses is Cherem's (taken from New Frontiers, loc. cit.) labeling:

\[\text{EI} = \text{environmental interpretation} \]
\[\text{EC} = \text{environmental communications} \]
\[\text{EE} = \text{environmental education} \]
\[(\text{what one gets in school}]\]

Figure 1: Environmental Learning

It was my contention in this discussion that a more appropriate labeling would have "environmental education" for (environmental
But none of the writers that I am familiar with actually argue that environmental interpretation is, or is not, education, environmental or otherwise. Instead of arguing for the position they assert it, assuming that it is obviously true. What I intend to do in this study is to argue -- that is, establish -- in what way environmental interpretation is, and what way it is not, environmental education. I will investigate the way the concepts 'environmental education,' 'environmental interpretation,' and 'education' are related. Hence, the questions to be addressed are, "How is it that environmental interpretation is contained within the (apparently) larger concept of environmental education?" and, "Are the concepts related?"

Are these important questions? Do the answers really matter? I think they do. First, there seems to be a confusion about whether or not interpretation is education, and the confusion seems to be based on the meanings of the terms involved. In other words, it is not clear what the concepts 'education' and 'interpretation' mean, and once that issue is cleared up the conceptual relationship between the concepts will also be clear. Thus we need to get clear on 'education' and 'interpretation,' and thus reduce if not eliminate that apparent confusion. I take this to be a worthwhile endeavor in its own right.

Second, what Sandy Parker writes of the field of environmental education is also true of environmental interpretation:

(cont'd) learning), and "environmental schooling" for (environmental education) on the grounds that the new labels would more accurately describe (insofar as names describe anything) that which was labeled (environmental learning) and (environmental education). It is intended that the following analysis will lend support to my contention as well as give an account of Cherem's position in terms of an ordinary language ambiguity.
There seems to be no conceptual framework supporting and lending internal coherency to EE activities. If one asks the seemingly innocuous question "What does successful EE look like?", all too often the response is either a bewildered look or vague mutterings about clean highways and school kids monitoring local streams. This uncertainty has its roots in the phenomenon of a goalless enterprise.°

I would amend his last sentence to read, "The phenomenon of an enterprise with too many goals" rather than "goalless." A careful reading of the interpretive literature shows that nearly everyone has a different goal for interpretation, and that even the same person will have different goals for it. For example, Tilden says that the aim is to "reveal meanings and relationships" and the "enrichment of mind and spirit," while a little later he says that the "chief aim is provocation." ¹ It is no wonder that Alan Wagar can say, "But when a small gathering of interpreters were asked exactly what they were trying to accomplish, no one could answer," when even an acclaimed leader in the field doesn't seem to be able to say exactly what he is trying to accomplish.

It is not only goals that present difficulties, but also the practice of interpretation. Consider this situation,

*It is not nearly as important to see as to correctly interpret what one sees.

*Person-to-person communication through individual experiences is the best kind of interpretation -- and

---

⁹ Tilden, op. cit., p. 8.
¹⁰ Ibid.
way to learn. 12

In the above the meaning of 'interpretation' shifts rather radically in the two statements. The first suggests something like 'to make sense out of' and the second something roughly like 'explain to someone.' 13

These examples—which are a few out of very many—are presented to illustrate what I take to be a lack of a conceptual framework for environmental interpretation. Hopefully the following analysis will help provide a framework both for environmental interpretation and environmental education. 14

Third, and most importantly, the concepts we use to think about interpretation do help guide and influence the way interpretation will be practiced. John Dewey said, "Symbols 15 control sentiment and thought." 16 If this is even approximately true— if it is true that words function intimately in thinking about things 17—then it seems

13 For a detailed discussion of this distinction, see below p. 31.
14 It must be noted that there has been some work done in this area, but none of it is of the sort that I propose to engage in. My analysis will clearly describe the conceptual relationships, and thus provide a conceptual framework.
15 In this study 'symbol,' 'word,' and 'concept' will be taken to mean the same thing. The concept 'symbol' includes more than just words: it would include such things as Morse code, gestures, a red stop light meaning "stop," and so on. As for 'word' and 'concept,' I will follow what van Buren says: "It is helpful, then, to think of 'concept' as another term for 'word,' for whenever concepts puzzle us, it is words that puzzle us. Indeed, without the word we could not even speak of the concept." (Paul M. van Buren, The Edges of Language (New York: MacMillan, 1972), p. 51.)
17 "Control thought" in the sense that whatever it is that someone thinks about something it is only through words, or other symbols with a shared meaning, that he can inform us, or discuss with us, what he is thinking.
that it would be valuable to get as clear as possible on what those words mean. As Jonas Soltis puts it,

I became convinced that the most important tools of the trade in education are those concepts which are used to think about, guide, and control the ongoing educative process, and that a clear understanding of these concepts is an essential prerequisite to dealing intelligently with any educative activity.18

He goes on to say,

Yet these very concepts are basic to any thought or discussion about education. Furthermore, I believe that such an attempt to explicate these ideas would invariably result in the unveiling of nuances of meaning which we unconsciously assume in our discourse and in our actions as students or teachers.19

Of course I would want to make the reference to environmental interpretation as opposed to Soltis' reference to education in these passages. The point remains, however, that the basic concepts are important, and it is useful to get clear on what they mean. For example, if we think that education and schooling are the same things, and thus exclude interpretation from the concept of education altogether, we might find that we have taken a too limited view of education, and thus have limited the way that we could view interpretation. What I will argue (among other things) is that education is not just schooling, but includes other sorts of things, and that the concept of education requires that the practice be carried out in such a way that the student (or visitor) be witting and voluntary, while there are some suggestions that interpretation need not be so.20 By thinking

19 Ibid., p. 2.
20 For support of this perhaps surprising claim, see pp. 160ff.
that interpretation is not education in one sense one can be led to think that it is not education in another sense, a sense that one would agree does apply to interpretation, once that sense of 'education' had been explicated.

What I will try to do, then, is to make as clear as possible the concepts involved, so that there is more clarity and precision available to those who would think about matters of interpretation, and in so doing provide, to some extent at least, a conceptual framework.

The Nature of the Problem

It has been suggested that the problem that I will be dealing with is a problem of concept. What is a problem of concept?

If I were to ask how many words there are in the preceding sentence then I would be asking a question of fact. To answer the question one would count the words -- the answer comes from the empirical world, and is determined by observation of it. If, on the other hand, I were to ask, "What is a word?", I would be asking a question of concept, namely, "What does the word 'word' mean?" To answer that question I would have to find out what sorts of things 'word' applies to, how the symbol 'word' is related to other symbols, and so on. Similarly, if I asked, "Is communism compatible with democracy?", I am asking if the concept 'communism' is consistent with the concept 'democracy.'

It should be noticed that to find the answer to a question of concept it is not necessary to perform any experiments. We do not have to set up a country and impose democracy and communism, and see what happens.

---

Nor do we have to have to examine other countries, past or present. We answer the question by determining what the terms 'communism' and 'democracy' mean, and by determining if there is any contradiction. To take another example, if we ask whether tyranny is compatible with freedom, we know that it is not compatible because 'freedom' and 'tyranny' are inconsistent concepts. We know this because we know what the concepts, the words, mean. We do not need to perform any experiments, or study any history. The answer depends on meaning.

Some questions are mixed, in the sense that in order to answer the question one must both ascertain the meaning of one or more terms involved as well as examine the world. Thus the question, "Does environmental interpretation ever occur in the public schools?" requires us to do two different things, first to find out what 'environmental interpretation' means, and then to go to the public schools and observe if what counts as interpretation does occur. We cannot just go to the schools and report the observations, for many things occur in the schools, not all of which are educational, environmental, nor interpretive. Somehow we must be able to distinguish that which we take to be interpretation from that which is not. Determining the distinction is a conceptual matter. Similarly, we cannot determine if environmental interpretation occurs in the schools only by finding out what the concepts mean, but we must also go forth and observe.  

The exception to this claim is that if we know that 'interpretation' and 'what goes on in the public schools' are contradictory concepts, then we know that interpretation cannot occur in the schools, and there would be no point in looking. There is no point in going to Cleveland to find out if there are any married bachelors there, for there are no married bachelors -- anywhere. Bachelors are, by definition, unmarried. If the concept of what goes on in the schools conceptually rules out 'interpretation,' then we need make no observation at all.
Thus the question that I will be dealing with in this study is a question of concept. To answer the question about the relation of environmental interpretation to education and environmental education we must find out the meanings of those concepts. Thus no field observations will be made, for there is no need since nothing in the empirical realm will have any bearing on how the concepts are related.

The Method

To find answers to questions about meaning we must understand what the terms 'interpretation,' 'education,' and 'environmental education' mean. As Paul M. van Buren puts it,

> Our task, therefore, takes the form of becoming more sharply aware of what we know already. Since we all know how to use language already, we can expect no esoteric discoveries, yet because we are so familiar with the use of words that we take them for granted, we can learn something by making language itself a subject of attention.23

Thus I will be looking very carefully at what interpreters have to say about the concept of interpretation. The data of the following analysis will come from what people have written about interpretation, and from how we use the concepts 'interpretation,' 'education,' and 'environment.' The focus will be on the language of interpretation.

But what does it mean to focus on a language? Again van Buren is helpful

> Language is a convention. The existence of a language is the mark of an agreement to use certain sounds and symbols in common in a regular way. . . . This has been expressed [by John Searle] by calling language "rule-governed behavior." Learning a language is learning the rules of its use.24

23 van Buren, op. cit., pp. 45-6.
24 Ibid., p. 52.
But isn't this just the grammar, semantics, and definitions of the language? To return to van Buren:

Rules for the use of language are not the same as those found in grammar books, although they are related to them of course. Grammar books give us rules for sentence structure, parts of speech, punctuation, and the like. If we wish to do with language what people around us do, we must follow these grammatical rules, but we must also follow some rules not found in grammar books. One such extra-grammatical rules for the use of the word "thinking," for example, is that it does not apply, as we saw, to the case of the person who cannot say what he is thinking [we use other words, like 'daydreaming' or 'wool-gathering']. Attention to such rules, the regularities which obtain in our use of words, helps to prevent misunderstandings of the meaning of words and sentences.25

So the enterprise here will be to get clear on the extra-grammatical rules that apply to the words 'interpret,' 'education,' and so on. To put it differently, I will try to show what is implied by the terms, the concepts, what it means to say that something is a case of 'interpretation,' etc.

What I will be doing, then, is engaging in what is often called "conceptual analysis," i.e., the analysis of concepts. This activity is a description of the concept's use. As Thomas F. Green states,

It is describing when the concept applies, when it does not, how its subtle nuances incline us to think one way or another when we use it, the delicate differences of meaning it receives in different contexts, and how the likenesses and differences between those contexts lead us to one or another use of the concept.26

I will try to describe the concept's use, what we do with the concept, and what we describe by it. For example, I will examine

25 Ibid.
what it means to say that something is a case of ‘education.’ I will analyze, as far as necessary for the purpose of this study, the concept of ‘education,’ in order to see how the concept of ‘interpretation’ can be related to it. In doing this I will have to draw on the way that we use ‘education’ — I will not make up new meanings for the concepts involved — and I will see what we can and do say about, and with, ‘education.’

**Difficulties**

By now the reader may think that all of this is "just a matter of definition," that it is "just talk about words." In a sense I am "talking about words," and in a sense it is "a matter of definition," but not in the trivial way that the term 'just' implies or suggests. John Wilson gives an example of the way that such expressions are misleading:

One might say, if one were sitting on a jury and asked to decide whether a prisoner was guilty or not guilty, "Oh, well, it just depends on what you mean by "guilty," it is just a matter of words and definitions": and this would be very misleading.

It is misleading for a number of reasons, one of them being that the term 'definition' is ambiguous enough to render the statement almost

---

27 The reader should notice that this is a piece of analysis. We use the word 'just' when we want to diminish the importance of something, and what happens in cases like the example given is that the statement "begs the question," but very subtly. It assumes, and "cleverly invites" the reader to also assume, that which is at issue — Is it all just a trivial matter? The use of 'just' brings the reader to the conclusion that it is trivial, when he should instead ask, Is it simply a matter of definition?

meaningless, but more importantly the statement suggest that it doesn't really matter how we fix the meanings of 'guilty' and 'not guilty,' when in fact it is hard to imagine something more important — especially to the person on trial. He would not want the jury to mindlessly look the terms up in a dictionary, and he might properly take issue with any definition found there. Not that words mean anything that we want them to mean — we would have to be true to the way that we usually do use words, and to determine that we would engage in analysis.

In a sense, however, conceptual analysis is like a definition. As Green aptly describes it,

A close relation exists between linguistic or conceptual analysis and the formulation of definitions. We analyze a concept by studying the meanings of its related terms, and a definition, like an analysis, is always a formulation of meaning. . . . In many respects a conceptual analysis is like a complicated and extended definition, one in which the definiens is a lengthy and sometimes intricate exploration. . . . A complete analysis of any really basic concept like "knowledge" or "belief" is almost never attained. It might, and indeed does sometimes, run into several volumes. But if a complete analysis were attained, . . . It would constitute a peculiar [sic] kind of extended definition. 30

Green is right that there is a relationship between analysis and definition, in that both have to do with meaning, but in the case of analysis the meaning articulated will be one that is argued for, not just asserted. Thus I will give reasons for what I say in the analysis,

reasons that will establish the relationships between 'interpretation' and 'education,' in much the same way that the reasons given in geometry establish certain propositions about triangles and so forth. I trust that it will not be trivial.

Another kind of difficulty is that since 'environmental interpretation' has not been subjected to critical philosophical analysis what I have to do is explore new territory. This presents a problem because it is not clear what the conceptual difficulties of 'interpretation' are, and I am not able to respond to other analyses. It is much easier to critically evaluate what someone else has said and respond to it than it is to initiate the analysis. But the analysis must be initiated, and if I make mistakes in the exploration of new territory at least I have set up a scheme in which the critical response will come. I am imposing a way of looking at 'interpretation' that can lead to a more precise concept, a concept that has been "forged on the anvil of critical enquiry." That occurs when one philosopher tries to make clear what some concept means and another elaborates, refines, and corrects the previous attempt, and so on. In short, there is no analytical literature dealing with 'interpretation.' I am starting one, and that is difficult, risky, and the analysis that results may not be as clear as one would wish. It is as though I were drawing the first map of a new territory: not every element of the "logical geography"\(^1\) of the concept is going to be clearly and accurately placed. For that all I can do is provide an anticipatory apology, and hope that at some point the map will become clearer.

\(^{1}\)To use Gilbert Ryle's expression.
Finally, concepts in a natural language can be used according to the (extra-grammatical) rules of that language: that would be to speak that language. But those words can be abused and misused. I feel no obligation to concern myself with the many misuses or abuses of 'education,' 'interpretation,' and so on, in English, and consequently will not touch on such matters except insofar as I wish to make a point. Moreover, the making of a point, by using as an example something that can be taken to be a misuse or abuse of a concept or term, is not to be construed as an implicit recognition of that usage.

Strategy

The strategy employed in this study of the concept of 'environmental interpretation' is this: after a brief account of the history of interpretation and a discussion of the distinction between the pedagogical and non-pedagogical senses of 'interpretation' I will turn in Chapter III to a discussion of the concept of 'environmental education.' There I hope to make reasonably clear what the concept means, and then proceed in Chapter IV to a discussion of the concept of 'education,' making clear what it would mean to say that something is a case of environmental education. Next I will turn to a discussion of the purpose of interpretation in Chapter V, and then the practice of interpretation in Chapter VI, in order to determine in what way it is, and is not, environmental education. Finally, in Chapter VII I will draw the findings together and discuss some practical implications of the analysis.
Summary

Many writers assert that environmental interpretation is or is not education, but few argue the point. I will try to establish an answer to the question, "Is environmental interpretation environmental education?" Giving a number of reasons why it is important to get a clear answer to this question, among them that it is interesting to see the conceptual relationships involved, and so doing will provide a conceptual framework for interpretation. More importantly, the concepts involved help to guide practice and are used to think about interpretation. Thus it is fundamentally important to get clear on what the related concepts of education, environmental education, and interpretation mean.

The strategy will be to first find out what it means to say that something is a case of environmental education, then find out what it means to say that something is a case of environmental interpretation, and then see in what way they are logically related, and finally see what practical implications this has.
CHAPTER II
AN HISTORICAL PERSPECTIVE

The purpose of this chapter is threefold: First, I will present some of the conditions that gave rise to, or brought about, the practice of a certain kind of educational activity we now call "interpretation." It is hoped that the reader will gain some insight into the reasons why interpretation came to be developed at all.

Second, I will present some of the viewpoints of the early interpreters on both the purpose for doing environmental interpretation as well as the way that it is done. One reason for doing this is to show that many of the current beliefs about the point and practice of interpretation are really quite old. Another reason is to show that the point and practice are strongly related to ideas formulated 60 or more years ago.

Third, I will describe the terminological changes, to the extent that data are available, from the use of 'guiding' through 'nature guiding' to 'interpretation,' in order to make clear the "conceptual heritage" that 'interpretation' has with another educational activity known by a different name (i.e., 'nature guiding').

1It is my contention that what we are fairly well agreed upon as interpretation actually was being practiced by 1900, if not before. Then it was known as 'nature guiding.' It is also being assumed that interpretation and nature guiding are educational in some sense. In the following chapters that sense will be made clear.

2It should be noted here that this dissertation rests very little, if at all, on the material set forth in this chapter. This chapter is
Whenever one attempts to set forth the history of something there is always a problem of where to start, and what to select for inclusion. There are, I take it, a great number of facts that could be included in a history of interpretation, and one could trace its origins back to the beginning of human intellectual activity if one saw a chain of relevant connections from then to the present. One writer has done something nearly that ambitious, in tracing interpretation back to Aristotle and Socrates. Perhaps such an account is helpful for some people, but I do not find it so. Instead, what I will do is rather severely limit the facts included in this study, but I will present those which I judge to be particularly relevant for getting a certain perspective on the activity of interpretation. The presentation of any historical account presupposes that the historian select certain facts, and ignore others, so that a particular account is presented. Other accounts can be given, and possibly more interesting than the one given here. No one can give the history of interpretation, but just a part of it. I hope that what I give is a worthwhile and enlightening part.

\(^2\) Intended to give perspective to the material that follows, but that material is, strictly speaking, independent of what is presented here, and of course, vice versa. Nevertheless, perspective is important; I think it is helpful to have the material in this chapter available to get a more complete understanding of what follows in subsequent chapters.

\(^3\) Howard E. Weaver, "Origins of Interpretation," in Sharpe, op. cit., pp. 23ff.

\(^4\) For a further discussion of the problem of selection, see below, Appendix C.

\(^5\) I cannot resist the temptation to point out that what I must do as an historian is interpret the facts.
The Beginnings

1920 is generally considered to be a benchmark in the history of the activity of interpretation, for it was in that year that the National Park Service began free nature guide service at Yosemite, which consisted of "... a full program of short and long field trips, evening campfire talks, and office hours for answering questions." This program was conducted by Drs. H. C. Bryant and L. H. Miller, and was started under the direction of the Director of National Parks, Stephen T. Mather, who had observed the activities of Bryant and Miller at Lake Tahoe the year before and decided that it was just what the National Parks needed. In 1922 five rangers were assigned "educational work" at Yellowstone, and thereafter the work expanded rapidly.

But nature guiding was going on well before that, both inside and outside the national parks, and in order to get an adequate perspective on nature guiding and interpretation it is necessary to look at the activity of some early nature guides and the circumstances that gave rise to nature guiding.

In 1872 Yellowstone National Park was established to serve as a "... public park or pleasuring ground for the benefit and enjoyment
of the people." That the park is to be a "pleasuring ground for the benefit and enjoyment of the people," is an idea often repeated, especially in the early days of the parks. For example, one delegate to the 1911 National Park Conference referred to the "national play-grounds," and at the 1915 conference Mather asserted that the parks must be better known if they are going to be the true playgrounds of the people. The national parks, I should make clear, were from the beginning conceived for a certain sort of use -- they were not to be used for timber harvesting and the like, as the national forests were. This intent formed the activities established in the national parks along a certain line: the parks were to be for the benefit of the people and for their enjoyment.

Despite the high ideals expressed in the law and by the supporters of the formation of the national parks in making the lands reserved places for recreation and pleasure, the people did not exactly flock to the parks in great number. A number of factors account for this. Accommodations were rustic at best, transportation difficult, and not many knew much about the parks.

The lack of visitorship was a matter of concern for at least two reasons, one being that a substantial visitorship would help guarantee the continuation and expansion of the park system, and another was that

there was a concern about profits for American business. I shall deal with each of these in turn.

As Everhart puts it,

In the early days of the park service the objective was relatively clear-cut: how to provide sufficient facilities and encourage enough people to visit the parks and thereby insure that the exciting new concept of setting aside great nature preserves for the benefit and enjoyment of the people would ultimately succeed.\(^{14}\)

There was, indeed, some measure of danger to the park idea, and the strategy of winning over a constituency that supported the parks was probably a good idea. The Hetch Hetchy controversy is an example of the danger to the parks of commercial or other exploitation and modification.

Hetch Hetchy is part of the Yosemite valley, and from as early as 1881 the city of San Francisco had its eye on the valley for use as a reservoir. When Yosemite was designated a national park in 1890 it seemed that the possibility that it could be turned into a reservoir was no longer viable. In 1913, however, the Senate granted the valley to San Francisco, and that part of Yosemite was lost. A tremendous public outcry prior to that event made it in doubt all along.\(^{15}\)

There was a viewpoint that there should be no federal parks and reservations,\(^{16}\) that it was better to make economic use of the federal lands wherever possible. Not everyone wanted valuable land set aside so that people could look at it and "commune with nature." But if enough people got behind the national park idea they would constitute a

\(^{14}\)Everhart, op. cit., p. 39.

\(^{15}\)This account is based on Nash, op. cit., chapter 10.

\(^{16}\)Nash, op. cit., p. 175.
strong force against development of the park lands for commercial interests.

It is interesting, in view of the economic threat to the parks, that they should be viewed as an economic factor by some people. The "See America First" campaign started in 1908 in response to wealthy Americans spending over $400 million in Europe while visiting the resorts there. This money was eagerly desired by American business, undoubtedly with the support of the Federal government, no doubt as conscious of the balance of payments then as now. One reads in the National Parks Conference Proceedings of 1911, 1912, 1915, and 1917 this concern voiced by those in attendance. For example, a Mr. Hill (the president of the Great Northern Railway Co.) expressed dismay over the number of people going to Canada and noted that, "Every passenger that goes to the national parks... represents practically a net earning." Another railroad man (Southern Pacific Co.) pointed out that "millions of dollars leave the United States each year". During the 1912 conference a representative of the Northern Pacific Railway stated that, "The great aim of the American lines is to keep the tourist at home and to attract the tourist from abroad."^19

The theme in the 1915 conference was the same, with a Mr. Daniels noting that "the tourist travel from the United States very materially affects the gold reserve of this country."^20 In 1917 the Representative from Oklahoma, Scott Ferris, called the amount of money that went

17 Shankland, op. cit., p. 4.
18 1911 Proceedings, pp. 4-5.
19 1912 Proceedings, p. 53
20 1915 Proceedings, p. 16.
abroad "no less than alarming," and said that the money should be kept at home "where it belongs." 21

To attract visitors to the parks and thereby ensure their survival as well as put some more profits into the coffers of the American businessman, the parks had to have improvements. That is, they had to accommodate the visitor and, in addition, they had to induce the visitor to come to the park. As Enos Mills phrased it at the 1917 National Park Conference, "So, if we want Americans to see America, we simply have to think of the development of our parks and get ready for the travelers." 22

A Mr. Curry noted in 1915 that, "Publicity for our national parks is what we need, and then we will get the people out there." 23 And prior to that, it was mentioned at the 1911 conference that "accommodations must be provided for the visitors," that hotel accommodations should be up to date with all the accommodations of a first-class hotel in the city, and that, "We have only to look at Switzerland to see how that country takes care of her visitors." 24

The problem was, then, to make the potential visitor aware that there was a public place set aside for pleasure and enjoyment, other than Switzerland or Canada. Potential visitors had to be given accommodations and conveniences in order to make the visit attractive. Railroads had to be built, hotels constructed, stores provided for necessaries, trails constructed, and so on.

21 1917 Proceedings, p. 20.
22 Ibid., p. 43.
23 1915 Proceedings, p. 106.
24 1911 Proceedings, pp. 10-11.
But there is another kind of accommodation that I am concerned with here, that is an accommodation that has an educational bent to it, an accommodation to the potential visitor that would make his or her stay interesting and enjoyable, but would not be a matter of providing for creature comforts, as crucial as those were. Instead it had to do with the intellect and natural curiosity of the visitor.

The national parks had to "educationally accommodate" tourists who were, ...

intelligent and educated people anxious to learn something about the causes underlying the wonders they are witnessing. Every one who has seen the beautiful and brilliant pools in Yellowstone Park is at least curious to know the cause of the harmonious and delicate coloring. These people were well-to-do, but somewhat helpless in the forests, helpless to the extent that Col. Forsyth thought it necessary to note at the 1912 National Parks Conference that, "Hundreds of people come in here that have never been on a horse or a mule," and a person at the 1917 Conference mentions that 100,000 of the 116,000 visitors to the Grand Canyon had "to be taken care of." These people were naive with respect to the areas that they were visiting, were not familiar with

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26 This is fairly evident, since it cost $300 to $750 to see the scenery in California (1915 Proceedings, p. 17) and before railroads the trip from San Francisco to Yosemite cost $75 via stagecoach (1911 Proceedings p. 9.) This is a fair amount of money even nowadays, and was certainly beyond the means of the average immigrant factory worker or clerk.

27 1912 Proceedings, p. 16.

28 1917 Proceedings, p. 324.
the natural processes that were going on about them, and did not see
the significance of the features of the park. If these people were to
have a good and interesting time and become a park constituency, they
would have to be educated about the park.

The early visitors to the parks found conditions quite primitive,
and they quite literally had to be guided into the interior areas. That
is, people -- guides -- were hired to act as escorts to lead the visitor
overland. As the parks developed, stagecoaches replaced pack-trains,
and hotels replaced tents. It is interesting to note that "motor
stages" replaced horse-drawn ones in 1915 at Yosemite, and that there
was a stagecoach hold-up in 1906.

Not only were the park conditions primitive, but there was little
reliable information about the sights and curiosities available to the
tourist. Robert Shankland states,

In the early days at Yellowstone, the tourists who ne­
glected to stuff himself in advance at the encyclopedias
was liable to have a dark time of it among the volcanic
phenomena. . . .

He goes on to say that the stagecoach drivers "liked to descant" to
the visitors, but in "a vain of bold invention," and the guides who
worked out of the hotels "cruelly punished the natural sciences."

Natural curiosity and interest were satisfied by guides and stage
drivers, who were hardly trained in the sciences, and who were not at
all committed to careful presentation of factual information. These

29 Carl P. Russell, One Hundred Years in Yosemite, (Berkeley: Univer­
sity of California Press, 1947), p. 188.
30 Ibid., p. 66.
31 Shankland, op. cit., p. 257.
32 Ibid., and see also Everhart, op. cit., p. 63.
guides were likely to give out incorrect information, through ignorance or a perverse desire to "take-in" the gullible tourist with far-fetched stories.

It must be noted that horse-wranglers, stage drivers, and uneducated hotel guides were not the only type of people providing guiding service to the visitor, that in fact there were at least some that had educational aspects to their guided activities. The outstanding example of this sort of guiding activity was the Wylie Permanent Camping Co. at Yellowstone. It may be found worthwhile to take a look at the Wylie camps: Shankland states that, "Wylie himself, a renegade pedagogue, lectured along the route on instructive and humorous topics." 33

The Wylie camps began at Yellowstone in 1883 as portable camps and evolved into permanent camps (1894) with the tents built upon raised platforms. Prior to 1883 Wylie had published an illustrated guide to the area. The interesting aspect of the permanent camps is described by A. W. Miles, then president of the company, in these words:

A very attractive feature is the camp fire in the center of each camp, surrounded by rustic benches, where an organ is played, songs are sung, and stories are told until 9 o'clock. At 10 o'clock the curfew bell is rung, and all is quiet in camp. 34

Miles goes on to say that,

It is apparent that the employees under such a system mingle with the guests not only in the capacity of servants, but also as entertainers and interpreters. 35

33 Shankland, op. cit., p. 120.
34 The 1911 Proceedings of the National Parks Conference, p. 45.
35 This may be the earliest use of 'interpret' to refer to the "teaching" activity that guides engaged in, that is, in a pedagogical sense. See p. 31, n. 52.
In view of this fact we have always drawn our camp employees from the ranks of intelligent and well-bred people.36

The Wylie camps employed college girls, college and high school instructors, geologists, and "college professors in disguise."37

The Wylie camps were considerably different from that found in other guided situations. For one thing, the Wylie Camp guides were educated people who engaged in enlightening the visitors, as opposed to telling the visitors "tall stories" as the stage drivers were inclined to do. It was a very informal educational encounter that occurred between the tourist and the camp employee, but an educational attempt nevertheless.

In addition, there was an obvious effort to provide entertainment for the visitor, but the entertainment was "cultural," to some extent anyway. The organs, stories, and singing of songs were designed to make the visit an enjoyable one, but it was not pure entertainment.

This situation can be characterized as "transitional" in that the park visitors were becoming tourists, as opposed to rugged pathfinder types. Initially, the guides of the early visitors were primarily engaged in leading into the interior areas; the visitor was left to entertain himself. But the visitorship changed from the pathfinder to tourist, someone who wanted entertainment. Quite naturally some of the guiding organizations (like Wylie) responded to this. Hence, when the tourist desired to have the interesting features pointed out and explained, and wanted to have something to do while at the park besides

36 1911 Proceedings, p. 46.
37 Ibid. The material in this paragraph is based on pp. 44-46.
simply gazing about, educational entertainment came to be provided.

**Nature Guiding**

Guiding was going on in other places as well, with perhaps more emphasis on the educational aspects than the Wylie camps provided. Among the educationally inclined activities we find that the soldiers who were used initially as guards later "occupied themselves preventing forest fires, enlightening tourists, and checking automobiles." Of these soldiers General S. B. M. Young, U.S. Army, reported (in 1907) that,

> the enlisted man assigned for park duty should be well informed in the history of the park and thoroughly cognizant with all the curiosities and points of interest therein; he should be qualified to pass a reasonable examination in zoology and ornithology. A visiting tourist should always be favored by an intelligent and courteous answer. . .

The soldiers were eventually removed and replaced by civilian rangers, but the point is, of course, that there was concern over accuracy and information. That the General at least wanted soldiers who could pass examinations in zoology and ornithology indicated that he thought that the tourist desired that sort of information, and that it should be provided.

In the Adirondacks the mountain forest-fire observers did a "real service pointing out interesting details in the views from the mountain tops" thus making the "mountains far more accessible and enjoyable," and at Yosemite a Lt. F. Pipes led botanically oriented field trips in 1904.

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39 1911 *Proceedings*, p. 117.
40 1917 *Proceedings*, p. 91.
41 Sharpe, *op. cit.*, p. 29.
Although there were many educationally oriented guiding activities in existence before the 1920 official beginning of nature guide service at Yosemite, an immensely important guide was operating at Long's Peak, in what was to become Rocky Mountain National Park, as early as 1889. That guide was Enos Abijah Mills, and he was a prolific writer and gives us a good picture of what were the educationally inclined guiding activities.

Enos Mills is important for, among other things, coining the term 'nature guide' to describe the type of guiding that he was engaged in as distinct from the usual horse-wrangler type furnished. He was clearly aware of what he was doing at Long's Peak, and tried to distinguish his type of guiding from the type still common.

Mills contrasted the two in this way:

"The mention of a guide usually suggests an alpine expert on a Canadian peak climber, a hunting guide, who can ride, shoot, cook a meal, pack a horse, and guide a hunting party to its goal."

On the other hand, "nature guides offer natural history excursions more intellectual in their nature." Likewise, "Natural history has been incidental to all previous types of guides, while to the nature guide it is the essential feature of every trip." While the hunting guide's chief aim is to find and kill the bear, the nature guide's aim is to watch the ways of the bear and to enjoy him.

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44 Ibid.
45 Ibid.
46 Ibid, pp. 244-5.
Nature guiding was distinguished by the point or purpose of the activity: to learn and enjoy, but not to kill, or just look. Not only did the specific purpose differ from other types of guiding, but Mills attached a methodology to it as well. He thought that,

The nature guide is at his best when he discusses facts so that they appeal to the imagination and to the reason, gives flesh and blood to cold facts, makes life stories of inanimate objects. He deals with principles rather than isolated information, gives biographies rather than classifications. People are out for recreation and need restful, intellectual visions, and not dull, dry facts, rules, and manuals.\(^\text{47}\)

This passage should seem familiar to the reader acquainted with the current literature of environmental interpretation. In any case, Mills clearly thought that that nature guide should deal with matters intellectual, or inspirational, but yet the nature guide was not to be a teacher. He states that, "Every plant and animal, every stream and stone, has a number of fascinating facts associated with it and about each there are numberless stories,"\(^\text{48}\) which are presumably the "stuff" of nature guiding, and although the "nature guide is not a guide in the ordinary sense of the word, [neither is he] a teacher."\(^\text{49}\) Mills also says, "nature guiding has been rightfully associated with information and some form of education. But nature guiding as we see it, is more inspirational than informational."\(^\text{50}\)

It is important to ask, Why did Mills want to distinguish nature guiding from teaching? Mills thought that at the time the activity that the teacher engaged in was far too rigid and structured. Notice

\(^{47}\text{Ibid., pp. 186-7.}\)
\(^{48}\text{Ibid., p. 245.}\)
\(^{49}\text{Ibid., p. 249.}\)
\(^{50}\text{Ibid.}\)
that he does not want "dull, dry facts," or "isolated information," or "classifications," things he may have associated with the then typical schoolroom situation. He wanted to lead guides away from the old style of guiding, but did not want them to be "teachy or preachy." Instead, nature guiding was to be concerned with the tourists' interest in recreation and enjoyment, not any pedantic imposition of masses of uninteresting data (presumably masses of interesting data would be acceptable).

The final point about Mills is that he saw himself as an interpreter, even though he still called himself a nature guide. He states that,

> While a guide on Long's Peak I developed what may be called the poetic interpretation of the facts of nature. Scientific names in a dead language together with classifications that dulled interest were ever received by the tourist, as they should have been, with indifference and lack of enthusiasm by those who did not know. Hence I began to state information about most things in the form of its manners and customs, its neighbors and its biography.\(^{51}\)

This passage is noteworthy because it is one of the first, if not the first, uses of 'interpretation' to refer to the pedagogical guiding activity of the nature guide. It is clear that by 'interpretation' Mills means a certain kind of educational activity, as opposed to the sense of interpretation where we mean something like 'explain,' or 'interpret,' in the comparison between 'explain' or 'interpret,' and 'explain to' or 'interpret to,' he clearly had in mind the activity of 'interpretation to.' I have already noted an earlier occasion of the (possible) use of

\(^{51}\)Ibid., p. 158.
'interpret' in the pedagogical sense (above p.25, n.35), but this example is beyond doubt an instance of the pedagogical sense.  

Here it is important to make clear the distinction between the pedagogical and the non-pedagogical senses of 'interpret,' a sense that has to do with, in a general way, "teaching," and another sense that does not have to do with "teaching." The first sense has to do with getting someone to learn, the second does not.

Weaver, writing on the origins of interpretation, notes that "... Thales interpreted the water cycle. ..." (Sharpe, op. cit., p. 23) and later "Sir Isaak Walton (1593-1683) interpreted stream conditions. ... in The Complete Angler. ..." (Ibid., p. 24). These uses of 'interpret' seem to be quite different in meaning than, for example, "The naturalist interpreted the climax forest to the visitors," where the concept 'interpret' informs us that the naturalist was doing something that was aimed at getting the visitor to understand something about the forest. The former two examples do not imply that Thales or Walton engaged in an activity in any way aimed at getting people similar to national park visitors to learn anything. Instead, the use of 'interpret' in those examples is like 'explain' as opposed to 'explain to.'

Following Martin (I am indebted to Jane R. Martin, Explaining, Understanding, and Teaching, (New York: McGraw-Hill, 1970), especially chapter 2, for the line of thought being followed) 'explain' has to do with research, while 'explain to' has to do with teaching. To 'explain something' is to offer an account of it, to engage in research, to come to an understanding of it, but not necessarily to try to impart that understanding to someone. Much the same for 'interpret': to 'interpret something to someone' is to try to get him/her to understand it, while to just 'interpret something' is simply to try to make sense out of it, not necessarily for someone.

The distinction rests on the difference between 'interpret' and 'interpret to.' One can interpret something without trying to impart understanding to someone; but to interpret something to someone is to try to get him/her to understand, to try to impart knowledge.

There are two reasons for pointing out this distinction. One is simply that I want to make clear the sense of 'interpret' that I am interested in: the pedagogical sense. Another is that the distinction strikes at a difference in methodology, purpose, and viewpoint. The activity of interpreting in the non-pedagogical sense is a different sort of thing than interpreting in the pedagogical sense. Research and theorizing follow well-established cannons of science; on the other hand, taking an explanation of something and making it understandable by the visitors has to do with communication and teaching and related matters of pedagogy and that is a different thing. An interpreter (in the pedagogical sense) who fails to see the difference may incorrectly concern himself with being too much of a researcher and not enough of a communicator.

A final comment: interpretation in the pedagogical sense is not also pedantic. That is a different idea altogether.
Mills "found his guests enthusiastic over his attempt to help them know rocks, wild flowers, birds and animals" and in due course nature guiding, as Mills thought of it, became common.

Maturation and Use of 'Interpretation'

Maturation By 1917 the notion of education in the National Parks had become significant. The National Parks Conference that year had an entire day devoted to the issue, and it came up repeatedly on other days. In contrast, in the preceding conferences (of 1911, 1912, and 1915) the interest was largely with the development of travel to and within the parks, the development of hotels, and similar accommodations. The fact that a day was devoted to education indicates that the interests were shifting.

Senator Smoot (from Utah) stated that he did not "believe that an American's education is complete... until he has seen the marvelous geysers, boiling springs..." and Mills thought that "the parks might be used educationally, and thus we might cut down the list of those things that are hurtful to humanity." In a somewhat different vein another delegate believed that "every national park should become a classroom for the universities and the schools of the United States." Similarly, a Mrs. Sherman (of the General Federation of Women's Clubs) stated that,

54 The 1917 Proceedings of the National Park Conference, p. 17.
55 Ibid., p. 38.
56 Ibid., p. 117.
In the fuller development of national parks, we may expect that in the future vacations will be planned with a definite educational purpose in view; that the school year inside of school buildings will be made shorter, and that more time will be spent in an educational way in vacations in the national parks... 57

In addition to the expression of a desire to see the parks take on educational significance, there were also claims about how the educational activity was to be carried out. Of course there were no methodological discourses as such, but there were hints about the outlook of some of the people there. One person asserted that the less prominent objects of interest should be labeled, "with descriptive labels somewhat after the type of museum labels..." and another noted that "... most of us prefer our education sugar-coated. The lesson is inside the coating... underneath that coating of pleasure and emotion we find the education." 59 And at an earlier conference (1915) a Dr. Jepson claimed, in reference to the wildflowers of the parks, that,

He [the botanist] has given them scientific names, but scientific names very rarely make an appeal to the people at large. Once you have folk names, then the interest in the flower fields will be very much greater. 61

These comments are illustrative of what people connected with the national parks, and with education therein, were thinking about. Education in the parks was now taken seriously, and the parks were considered both as places where one could go to study the geology, etc., as part of official university or school courses as well as places that

57 bid., p. 48.
58 The 1917 Proceedings, p. 223.
59 bid., p. 83.
60 bid.
61 The 1915 Proceedings, p. 127.
could provide non-official, popular, education: that is the point of
the "descriptive label" and using "folk names" instead of scientific
ones. This is, what we would call now, 'interpretation,' a kind of
educational enterprise where the concern is that which is interesting
to the visitor, or that which can be made interesting to the visitor,
not that which someone else thinks the visitor ought to know, regard­
less of how uninteresting it is.

Mills was in attendance at the 1917 conference, and expressed a
rather definite viewpoint on the nature and importance of the guide.
He maintained that the "real success of the national parks depends on
their having excellent guides," but not any type of guide, for the
"part played by the guide will not be that of the football coach, but
that of an instructor." He thought that guides in the "educational
sense" were too few for the numbers of people going into the national
parks, and that there was a demand for guides who would "take care of
people while giving them information in natural history." He thought
of the guide as being a sort of education professional who viewed the
job as a life's work, not something temporary.  

Mather's response to Mills is quite interesting, especially since
it was negative and since Mather was to later (in 1919) wax enthusiastic
about the idea. Mather asserted that while Mills' thoughts were very
interesting, "we have to look at the practical end of it," and that
"a development of this kind would take some time to develop, and neces­
sarily be of slow growth." Mather thought that it would be "a most
interesting thing to have the type of man that Mr. Mills refers to

62Based on the 1917 Proceedings, pp. 269-271.
for that guide; and I hope that it will be developed later on." and "eventually these field trips and the study of nature are things that should be worked out independently [i.e., outside of the official purview of the National Parks Service]." Obviously, Mather was not enthusiastic about the idea of nature guiding as part of the parks' official accommodations.

The "type of man that Mr. Mills refers to" was officially installed in the National Parks in the form of a free nature guide service started at Yosemite in 1920. This happened under the following circumstances: the California Nature Study League, in conjunction with the State Fish and Game Commission, decided to test out the idea of having a "high powered scientist act as a nature guide at a string of [3] adjacent summer resorts." The first test was in 1918, and as this proved successful it was decided to test it again at Lake Tahoe in 1919. There were "nature study hikes," games for children, such as "herb smelling" and "bark feeling," and at the "evening campfire there were nature study talks, movies and lantern slide lectures of wildlife." The experiment was successful in that the "attendance was so heavy that late coming listeners stood outside doors and windows." Mather evidently observed one of the evening presentations and "quickly decided this was precisely what the national parks needed."

The idea that Mather stumbled upon an activity that was totally new to him is a popular one, but as I have shown he had been made aware of

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63 Ibid., p. 272.
65 Everhart, op. cit., p. 63-4.
nature guiding at least as early as 1917, and probably before that, since Mills was nature guiding and writing about it at Long's Peak before the turn of the century. It would be interesting to find out what brought Mather to change his mind — especially since he apparently provided his own funds for nature guiding at Yosemite for a while.  

After the official introduction of nature guiding at Yosemite the activity spread rapidly so that, "By 1925 the demand for trained help had grown so heavy that, under Bryant, there was established a source of supply, the Yosemite School of Field Natural History." This school provided "work of university grade" with field observation and identification occupying sixty percent of the student's time. It goes without saying that nature guiding was soon introduced into many of the state and National parks and remains quite an integral part of their programs. In 1926 a booklet was written by Frank Lutz (Curator of insect life at The American Museum of Natural History) entitled Nature Trails. A brief glance at this booklet will help to further establish that what we would now call "interpretive principles" were being accepted and implemented. One thing to be noted is an idea Lutz held for the labels; they were "chatty" and "written in a language that ordinary people could understand," with "asides that had nothing very directly to do with natural history." On these labels the "subject was opened simply,  

became more complex, and was closed by a short summing-up or by a few questions." He, as others before him, did not want the labels to consist of mere names to be learned for their own sake, because he didn't see how one could get "much 'kick' out of a label that tells me no more than just a name."

Such labels were seen as an "educational method" and "So the season passed, taking down things that did not seem to serve their function of interesting, and putting up things which would both interest and educate... but not so much that the average visitor would be confused or get tired." Lutz wanted the visitor to enjoy himself.

He likened the trail to a "friend taking a walk and calling attention to interesting things" and so should "not deliver a pedantic lecture." Instead, "you would have your little jokes and make yourself generally agreeable," and, Lutz suggests, take the opportunity to "tell a story" when and where proper to do so.

All of these bits of advice could just as well apply to the nature guide and, of course, the interpreter and but for the date, it is rather modern. By that time all that was lacking was the clear transition to the terms 'interpretation' and 'interpretive.'

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70 Ibid., p. 4.
71 Ibid., p. 19.
72 Ibid., p. 4.
73 Ibid., p. 19.
74 Ibid., p. 6.
75 It should be noted that there were actually two trails, one called the "Training Trail" and the other called the "Testing Trail." The pedagogical intent is obvious. No one was compelled to travel the Testing Trail.
76 Ibid.
77 Ibid., p. 7.
78 Ibid., pp. 13, 26.
Use of 'Interpretation' I have already noted above, the occasional use of the term 'interpretation' to refer to the nature guiding activity, at one point by Mills prior to 1920, and another use in the 1911 National Parks Conference Proceedings, but there does not seem to be any early work where the term definitely replaced 'nature guiding,' nor any work in which the use of 'interpretation' is suggested as an alternative to 'nature guiding.' (Which was done by Mills as a way to distinguish his idea of pedagogically inclined guiding from that of the horse-wranglers.) Yet the term 'interpretation' does come to be used more and more frequently, and there are available some seminal documents that illustrate the increasing use of the term.

The first one to note is The Nature Almanac of 1930 which has a passage in it written by Mather. He states that, "the next task before the Service was the interpreting of the natural features of the parks to the visitors," and that, "The first step in this new endeavor was the inauguration of nature guide service..." A little later Mather mentions that, "The newest development in interpreting nature in the national parks is the establishment of museums..." What is interesting here is that Mather speaks of 'interpreting to,' yet the interpreting is done by 'nature guides.' At this point nature guides are not called 'interpreters.'

In 1932 Research and Education in the National Parks was published and contained very frequent uses of 'interpret.' Some examples: National Park Service men were said to have the training "to interpret,"

80 Ibid., p. 109.
a policy of education was that "simple, understandable interpretation of major features" be provided, and it was mentioned that there were "exhibits which assist the visitor in interpreting the geologic history of the lake." Interestingly, 'nature guide' was still the term used.\(^{31}\)

In that same year Carl P. Russell wrote *One Hundred Years in Yosemite* and included a chapter entitled "The Interpreters." However, it is not clear that he made a distinction between a pedagogical and a non-pedagogical sense\(^{82}\) of 'interpreter,' for he discusses it as though they were the same or that they did the same sorts of things. Both biologists, geologists, ethnologists and other researchers, and people like Miller, Bryant, and Hall who were mainly engaged in the dissemination of the knowledge gained through research, Russell called 'interpreters.' This may be the first use of 'interpreter' to refer to what was called until then 'nature guide.' If anything, he is inclined to use 'naturalist' instead of 'nature guide,' an expression he does not frequently use in this work.\(^{83}\)

Seven years later Russell published an article in *The Regional Review* in which he discussed the history of interpretive work. Again he seldom uses 'nature guide,' and instead uses 'naturalist,' or 'nature teaching,' or, more frequently, 'educational program.' Although he speaks of the 'interpretive program,' he calls the practitioners

\(^{31}\) Bryant and Atwood, Jr., *op. cit.*  
\(^{82}\) See also p.31, n.52 above.  
\(^{83}\) Russell, *op. cit.*, ch. X, *passim*. This work was first published in England in 1932.
'naturalists,' not 'interpreters.' Additionally, he mentions the distinction between 'research' and 'interpretation,' with the latter seemingly referring to the pedagogical activity.  

The important thing to note is the decline of the use of 'nature guide' and an increase in the use of 'interpretation.' In this regard Daniel Beard's assertion, that "Russell popularized the word 'interpretation' and the name of the whole program was changed accordingly." By 1957 the term had clearly replaced 'nature guiding,' and Freeman Tilden wrote a book on the principles of interpretation entitled *Interpreting Our Heritage.*

**Summary** After the parks were established two problems faced the administration: to provide accommodations, and entice the tourists to the parks. This concern was prompted by two things: a threat to the parks from exploiters and a desire on the part of business to obtain a share of the $400 - 500 million going to Europe with American tourists. The tourist was economically "well-off" and educated, and certain accommodations had to be provided if they were to come. Among those accommodations were the educational ones: providing information on the sights, etc., at the park.

Guides had been providing service in the park areas for a long time, and to some extent the tourists' curiosity was satisfied by these guides, horse-wranglers, and stage drivers, but these people were not

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85 Adams, *op. cit.*, p. 211.
trained in the sciences and their information was not reliable. Another type of guiding activity arose in which the guides were educated and could give proper information to the satisfaction and pleasure of the tourist. The Wylie Camps, for example, used high school and college teachers as guides.

Enos Mills was perhaps the first to clearly distinguish 'nature guiding' from the horse-wrangler type of guiding and he developed a methodology as well: avoiding "cold" facts and mere classification, and making the information interesting. He was one of the first to use the term 'interpret' in reference to nature guiding activities.

The idea that one should avoid pedantry gained popularity with those connected with the parks, and descriptive labels and the use of folk names advocated.

At the 1917 National Parks Conference Mills suggested that his idea of a nature guide be adopted for the parks, but Mather seemed to reject this. However, in 1919 Mather observed Drs. Miller and Bryant nature guiding at Lake Tahoe, and in 1920 introduced the activity at Yosemite.

The "interpretive" approach gained in popularity. In 1926 a nature trail was constructed under the auspices of The American Museum of Natural History in which the labels were described as "chatty" and "colloquial," yet with a definite educational aim.

The term 'interpretation' came to be applied more frequently, and around 1930 it was fairly well established. By 1939 the term 'nature guide' had fallen into disuse, and 'interpreter' or 'naturalist' was the preferred term.
'Interpret' has not always been used univocally with reference to nature guiding and related activities. Although a nature guide may interpret the features of an area, it doesn't follow that s/he interprets those features to someone. The nature guide or naturalist could make sense out of the phenomena without sharing that understanding with another. Interpreting something to someone, on the other hand, is a pedagogical activity (having to do with the art of teaching) and is aimed at getting someone to understand something. It is this sense of 'interpret' that is important for the study to follow. Incidentally, to say that something is a case of interpretation in the pedagogical sense is not to say that it is pedantic.
CHAPTER III
ENVIRONMENTAL EDUCATION

This is the first of two chapters that will present some basic conceptual distinctions required to determine in what way environmental interpretation is, and what way it is not, environmental education. In this chapter the ambiguity of 'environmental education' will be noted, and the concept of 'the environment' will be discussed. In the following chapter the concept of 'education' will be explored.

Section 1: 'Environmental Education'

A Threefold Distinction

Arthur Lucas describes a very useful threefold distinction based on the use of the phrase 'environmental education.' He finds that the phrase may express the idea of education about the environment, education for the environment, or education in the environment. Setting aside for the moment considerations of the meaning of 'the environment' and 'education,' I will present examples of these uses of 'environmental education.'

A) "Education about the environment" is exemplified in the case where one is talking about education that has as its subject matter

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1 A discussion of the ways the distinctions to be developed overlap will be found on pp. 52ff.

facts and perhaps skills (e.g., outdoor survival skills) about the environment. In this case would be education, perhaps teaching, in which was taught environmental facts, for example something about ecology, water pollution, animal habitat, and so forth. Or in the case of educating for certain skills one could count it as education about the environment if, for example, we have someone being taught the particular skills that one has to have when camping out in subzero temperatures.

B) "Education for the environment" is exemplified by education that has as its purpose saving or preserving the environment, in other words, education on behalf of the environment. When education is directed at a high quality environment, when it is aimed at inculcating attitudes, beliefs, or skills which will improve, preserve, or enhance the environment, it is education for the environment.

C) "Education in the environment" is the idea that someone has when they say that "Kids need environmental ed." What is meant is simply education carried out in the environment, that is, the out-of-doors, outside the school building.

Of course, all education is in some environment or other and thus we must take EE as "education in the environment" to mean something like "out of the school building" if we are to have the concept mean anything at all. It would be pointless to talk about EE qua education in the environment unless that designated something other than that which must happen, since all education occurs in some environment or other. It follows that 'environmental education' must describe something

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3 From The Lantern, July 19, 1976, p. 4, article so titled.
5 EE = df environmental education.
unusual about the education.

Further Distinctions

Although Lucas' distinctions are helpful, it is necessary to note that further refinements are possible with respect to EE/in⁶ and EE/for.

**EE/in.** There seem to be several ways of construing 'education in the environment.' The first way is simply as in the environment. A case of 'education in the environment' simpliciter, EE/in(s), would be a teacher holding class out-of-doors on a pleasant spring day. The teacher may hold the class outside for the sole purpose of enjoying the fine weather and with little regard to any pedagogical benefits derived therefrom. Indeed, it may be the case that the teacher is indifferent to the pedagogical advantages or disadvantages to be found in holding class outside. This differs markedly from what Lucas took EE/in to be; that idea is treated below (EE/with). Yet this is a kind of environmental education. It is pedagogically indifferent.

There is another kind of EE/in the environment where there is a definite pedagogical purpose for which the teacher takes the class out-of-doors and into "the environment." Here being in the environment is taken to have special benefits. The precise nature of these benefits will depend to a large extent on what we take the environment to be, but suffice it to say here that one clear advantage may be the availability of certain materials difficult or impossible to get into the classroom. For example, a biology teacher may take his class into the field to study, first-hand, the behavior of some ecosystem

⁶EE/in = def education in the environment.
that could only be pictured or described in the classroom. Or a teacher may take the children to a factory to see how one works, to a farm to experience what cows look and feel like (for inner-city children, for example), or something of that sort. In this situation the pedagogical significance of being "in the environment" is that certain experiences and situations can be presented to the student, experiences and situations that would perhaps be otherwise difficult or impossible. This idea of EE/in might be best called "education with the environment" (EE/with), since the educator uses the environment for some pedagogical purpose.

But this idea suggests that EE/with does not necessarily occur out-of-doors, for a teacher could use the environment in a classroom for a pedagogical purpose. For example, a teacher could use all the desks in the classroom in illustrating a point about mass production (e.g., they all look alike), and this could be construed as EE/with. However my concern is not with that kind of EE/in, but the kind that has to do with the out-of-doors environment, or nature, and consequently I will limit the use of EE/with to mean only "with the natural environment."

This idea of education in the environment is related to what may be a metaphorical way of speaking, that of education by the environment. Roughly, the idea of education by the environment while being in it is that being in a place where certain edifying experiences are likely to occur is taken to be of educational benefit, such as the inspiration allegedly experienced by viewers of the Grand Canyon, an ocean storm, and so on. The assessment of the logical status of such an idea will
have to be postponed until I have presented an account of the concept 'education,' for only then could it be said how the idea of being educated by the environment makes sense. However, the notion has been admirably expressed in a poem by Wordsworth, The Tables Turned. Some excerpts are:

And hark! how blithe the throstle sings!
He, too, is no mean preacher:
Come forth into the light of things,
Let Nature be your Teacher

One impulse form a vernal wood.
May teach you more of man,
Of moral evil and of good,
Than all the sages can.

Sweet is the lore which Nature brings;
Our meddling intellect
Mis-shapes the beauteous forms of things: —
We murder to dissect.

Enough of Science and of Art;
Close up those barren leaves;
Come forth, and bring with you a heart
That watches and receives.  

Dissect I must, and here I shall dissect the idea of education by the environment. First, one may hesitate to allow that "nature can be a teacher," or that the environment can educate someone. One may, of course, readily admit that we can learn many things and have beneficial experiences while in the natural environment without also admitting that we are taught or educated by the environment. Indeed, it seems to be a category mistake to allow the environment into the class of things that can teach or educate. It seems, and at this point I will take it as given, that only certain sorts of things can engage in teaching and education, namely those things that can engage in goal

directed activity. The environment is not one of those things.

Nevertheless, it seems that some people are inclined to think that simply being out-of-doors is educationally beneficial, and that education may take place by the environment. See, for example, Smoot's comment at a National Parks Conference noted above, p. 32.  

**EE/for.** Perhaps the central idea of EE/for the environment is that of an educational enterprise aimed at instilling propensities, attitudes, values, or dispositions which will lead the student or learner to behave in ways that will preserve or enhance the environment, or, for that matter, change those attitudes, etc., which lead to environmental degradation. For example, education which eliminated a propensity to litter by throwing beer cans along the highway and substituted another propensity, say, of depositing them in the proper receptacle, would be a clear case of education for the environment. And so too would education which aimed at and resulted in recycling bottles, or education aimed at getting people to protest industrial wastes which adversely affect the environmental quality.

This kind of EE/for could be properly called EE/advocacy, and would be contrasted to environmental detraction. Education which encourages, through intent, directly or indirectly, environmental degradation is education that is environmental detraction. For example, education which stresses the belief that wanton destruction of natural resources or that haphazard and unrestricted commercial development is absolutely

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8There is a sense in which it is meaningful to say that one has been educated by the environment (i.e., nature): where 'educated' means that the speaker approves of the state of mind that has resulted from being in the environment, and only that. For more on this, see below, pp. 78ff.
good, or education which suggests that people ought to condone such things, is environmentally detractive education.

However, there is yet another way of construing the phrase "education for the environment," and that is where the education one receives might be said to be environmentally benign, as opposed to that which is malignant. This distinction rests on the idea of the environmental impact of carrying out education, regardless of the intent of those engaged in the educational enterprise. Environmentally benign education is education that has little or no environmental impact, while that which is environmentally malignant has an adverse and significant environmental impact. Transcendental meditation, I take it, can be engaged in with no environmental harm, while music education, because it would typically require instruments, sheet music, phonographs, electricity noise pollution and so on, would have some environmental impact. Likewise for literature, which requires books and paper, which in turn requires a supportive industry with an environmental impact, could be considered somewhat environmentally malignant. Literature, however, would be more benign than, say, industrial arts, which results in greater impact, and consequently would be environmentally malignant. The point here is that the impact has to do with the way education is carried out, not with the aim of it, or the state of mind that results. In other words, it has to do with the process of education, not the product.
On the other hand, EE/for (advocacy) (and its counterpart, environmental detraction) has to do with the state of mind that results, the product, not the process.

Several points must be made with respect to this matter of education for the environment. One is that there is an implicit value judgment made when one determines that something is for the environment. The (nearly) obvious point is that to say that something is "for the environment" implies that the person making the judgment has some standards or criteria for what counts as a good environment. One who judges education that leads to recycling as education for the environment implicitly believes that recycling is a good thing, and that the standards for a good environment include the absence of certain kinds of pollution. Consequently, education for the environment (as environmental advocacy) is essentially moral education in both policy, practice, and point, and has to be seen in that light.

Another point is that 'education' itself sometimes carries with it the implication that whatever is said to be education is worthwhile. This will be discussed in detail below (pp. 78ff) but here it can be assumed that for at least some uses of 'education' there is an evaluation: whatever is said to be education(al) is also, ipso facto, held to be worthwhile. Now if this idea is applied to 'environmental education' it can be seen that when this expression is applied to some X, that X can be taken to be worthwhile, but not necessarily for the environment. For example, something can be a case of education in the environment and deemed worthwhile regardless of the environmental effects. A child may learn while out-of-doors that baby animals follow
unquestionably their parents and imitate this behavior. It is EE in some sense, and is deemed worthwhile, yet not for the environment. The point is simply this: the implicit value judgment noted above when discussing education for the environment is not derived solely from the concept of 'education.'

A Basis for the Distinctions. Lucas\textsuperscript{12} points out that EE/in the environment is characterized as a pedagogical technique, while EE/about and EE/for the environment are characterized by a type of goal or outcome. When one says that something is EE/in the environment (in any of the senses described above) there is no implication as to what outcome is desired or sought, other than perhaps learning. We do not know what was learned in EE/in and we do not know the particular product aimed at. On the other hand, if something is said to be EE/about or EE/for, we do know what is aimed at: knowledge or understanding of the environment, or knowledge, understanding, or values that are taken to be for the environment. However, we do not necessarily know what sort of educational approach is used in an effort to attain those goals. It may be lecture, discussion, etc., and may be indoors or outdoors, but 'EE/for' and 'EE/about' do not tell us.

Thus one might say that education in the environment is a logically distinct type from education for, or education about, the environment. And from this it would follow that the criteria used to assess EE/in would be a different sort than that used to assess EE/about and EE/for. When assessing EE/in one would have to see if it worked, that is, it would be assessed in terms of its results for learning, just as one

\textsuperscript{12}{Lucas, op. cit., p. 107.}
would assess any other type of pedagogical technique. One would wonder if this technique was an effective one, and one could use various means to ascertain that, regardless of the particular outcome aimed at in the use of this pedagogical technique.

On the other hand, since EE/about and EE/for are characterized by a type of goal or outcome, these would be assessed somewhat differently. One would assess EE/for in terms of whether that education brought about enhancement or preservation of the environment, and this assessment would be conducted so that the pedagogical techniques and/or subject matter could also be assessed, but only in terms of the goal of enhancement or preservation of the environment. That is to say, the evaluation of EE/for is mainly directed at that goal, the evaluation is defined by that goal, while for EE/in the environment the evaluation is not necessarily defined by that goal, but rather by the effectiveness of that technique with respect to any subject matter.

Much the same can be said about EE/about. Here, again, it appears that the assessment is in terms of whether the student has learned those particular facts, skills, behaviors, and so on, which are about the environment, perhaps with the idea of assessing, in turn, the methodology, but not necessarily so. One could be assessing, for example, the capabilities of the student.

**Combinations**

There are possible overlaps between EE/for, EE/in, and EE/about the environment.\(^{13}\) It will be helpful as a summary to list all the

\(^{13}\)This point, and the discussion to follow, is based on Ibid., p. 128.
combinations of the various forms, including the additional distinctions I made above. However, since that will give an unwieldy number, I will just note the more important ones.

**BE/about:**

1.) Is not necessarily *for*(in any sense), but may be. A student may learn a great number of facts about the environment but it doesn't follow that the education will be for the environment. There may be no intent that the knowledge lead the student to anything for the environment. Indeed, it may be the case that the intent is detractive, as when someone wants to instruct people of the presence of a scarce resource so that the resource will be exploited with resulting profit to certain individuals.

2.) Education about the environment may not take place *in* the environment in any of the senses discussed. A person may learn a great deal about the environment from a good friend without ever going into the environment to do so, or without the environment being used in this effort.

**BE/in:**

1.) Environmental education in (s) need not be either for or about the environment, although it may be both. The education may be out-of-doors, but if it is about the political system of ancient Greece and there was no use of the environment in this study, and there are no points made that could be construed as being on behalf of the environment, nor any about the environment, then it is neither for nor about. In other words, just because something is education in the environment it does not mean that it is education for or about the environment.

On the other hand, one could take a group of people into the environment to teach (or interpret) a number of facts to them about the environment, and use the environment as a teaching aid.

2.) Education "by" the environment may occur (perhaps in a figurative sense) yet it might not be for the environment. An example would be when a person was uplifted by the environment, and yet no benefits accrue to the environment because of this uplifting.

3.) Education with the environment may, or may not, be about or for the environment. One may use the effects of lightening on a tree in a forest to illustrate something about static electricity, and that is neither necessarily about the environment nor for it.
EE/for:

1.) Environmentally advocative education is not necessarily in the environment. To the extent that using the environment is helpful, it might be carried out there.

2.) Education for the environment might require education about it, or it may not. It would seem that some factual information about the environment is desirable, yet it seems that EE/for can occur with no information about the environment. For example, a child could be taught to turn off the lights when not in use, and also learn nothing about the environment.

Section 2: 'The Environment'

In this section I will attempt to make somewhat clear what 'the environment' refers to, in order to clarify what EE/for the environment is for, what EE/about the environment is about, and EE/in the environment is in.

It should be noted at the outset that, a) this enterprise may be frustrated (if not also frustrating) because our ordinary language is not at all clear on what 'the environment' means, and given that, b) the most fruitful approach to the meaning of 'the environment' might be to simply stipulate a definition. Not all concepts are equally worth analysis, and one criterion for the worthwhileness of an analysis is the potential for theoretical power. In the previous section the analysis of the ambiguous concept 'environmental education' into education for, about, and in the environment enables us to distinguish and discuss the different ideas implied in 'environmental education.' But a detailed analysis of 'the environment' does not promise much theoretical power. Yet some clarification is quite obviously needed, and to that task I now turn.

14 See Green, op. cit., pp. 121f.
Lucas' Account

Lucas provides some useful considerations with respect to the concept 'environment.' He points out that there are two aspects of the concept that are important to keep in mind when discussing 'the environment,' viz., "the referent" and "the relevant components."

The Referent. Lucas argues that when we speak of 'the environment' we must have in mind a referent whose environment it is we are talking about. He seems to say that when we talk about the environment we are always talking about something's environment, not simply the environment in general. Thus to talk about "saving the environment" is to talk about saving the environment of something. Consequently, for considerations of clarity, one may properly ask, Whose environment are we talking about?

It should be noted that Lucas believes that an entity (the referent of the environment in question) cannot be part of its own environment. He says, "It is nonsensical . . . to suggest that an entity can be part of its own environment." To make this position plausible, note that an environment is an environment of something. To speak of "the environment of" serves to talk about something other than the referent. For example, on Lucas' account the environment of the snapping turtle would be the water, mud, etc., in which the turtle lives and breeds, but not the turtle itself. If we wanted to talk about both we would have to say, "the turtle and its environment."

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15 Lucas, op. cit., ch. II.
16 Ibid., pp. 21-28.
17 Ibid., p. 21.
18 Taken either as an individual or as a species.
The Relevant Components. The second point that Lucas makes is that when we use 'environment' (as in "the environment of the snapping turtle," we are not talking about everything in the entire universe, although in a sense, "All parts of the Universe, other than the referent, comprise the environment of that entity.") But that sense is conceptually useless because the universe is simply too much, it includes everything, and thus the concept signifies nothing at all. In fact we generally select out of the universe certain components taken to be relevant, and the determination of those elements is a function of the purposes of the speaker or investigator. Thus when talking about the environment (of something or other) it is implicit that not everything in the Universe is to be considered, but rather certain things are selected out of the Universe for consideration, and what those things are is a function of the purposes of the speaker.

Lucas sums this up in two questions: "... to be asked in evaluation of discussions of 'the environment':

What is the entity that is the referent of 'the environment'? What is the purpose of considering the environment of the entity?"

Man's Environment. Lucas attempts to make clear what it is that one would have in mind when speaking of 'the environment' (his emphasis). He investigates what he says is the common usage of 'the environment,' when environmentalists, environmental protection agencies, and environmental educators use it and when found in expressions like, "clean up the environment," "protect the environment," and "concern for the environment."

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19 Ibid.
20 Ibid., p. 36.
21 Ibid., ch. III.
He argues that in this usage the referent is humankind, that is, when one uses the locution 'the environment' it is man's environment that is being implied. Consequently, "concern for the environment" and "protect the environment" are taken to express concern for man's environment and protection of man's environment.

His argument seems to be based on two considerations. First, that it is common to find humankind as the referent of 'the environment,' and second, that uses of 'the environment' actually amount to "a cryptic concern for the environment of man." An example of this "cryptic concern" for man's environment is shown in this way: a concern for the extinction of the bald eagle is actually a concern for the possible lack of aesthetic satisfaction in seeing one of them. Or in a discussion of the preservation of Lake Superior Lucas observes that, Most participants of the conference, however, believed that this example was really a case where reflected human values were involved. For example it is a loss to the environment of humans if the last pristine lake disappears for it will decrease the total experience available to man. An alternative argument is that we should preserve the lake in its present condition because any unanalyzed large scale change is likely to make us worse off . . . if something can go wrong, it will.

Two comments are necessary. First, I am inclined to agree that perhaps many uses of 'the environment' are homocentric, and this is certainly a helpful thing to keep in mind when evaluating uses of 'the environment.' Yet it does not follow that all, or even the most interesting, uses of the phrase have humankind as the referent. To assume this will make us overlook another important use, one in which the

\[22\] Ibid., p. 39
\[23\] Ibid., pp. 40-41.
referent is other than humankind.

Second, the argument that since the justification for the preservation of an environment involves human values, hence the referent is humankind, is wrong. It does not follow necessarily that it is the environment of humankind we are concerned with when the preservation of an environment is at issue, even though the justification for that preservation is in terms of human values (what other kind are there?).

For example, take the case of the preservation of Lake Superior. On Lucas' account, "Let's preserve the environment of Lake Superior" would be analyzed into a) Let's save an environment that has as its referent Lake Superior, and b) that referent is man, since it is man's values that are taken into account. Lucas would have to say that "Let's save the environment of Lake Superior" is really a circumlocution for "Let's save some part of man's environment, namely that part that includes Lake Superior and the things in man's environment that are relevant to that objective."

First, note the inconsistency: we would want to say that the referent here is Lake Superior, yet on Lucas' account we have to say it is something else, mankind. I take it the referent cannot be both.

Second, it does not seem that the analysis completely captures what someone has in mind when he says, "Let's save the environment of Lake Superior," even if he has human reasons for doing so. Another account is needed.

'The Environment' as Nature

When someone says, "Let's save the environment of Lake Superior," that person has in mind preserving the lake, that is, keeping it clean,
attractive, vital, and so on. By why, then, stick 'the environment of' into "Let's save Lake Superior"? What function does 'the environment of' serve when so used? Is the function to indicate it is man's environment that the speaker is (really) talking about? I don't think so. It seems, instead, that the point of saying 'the environment of' is to indicate an implicit value judgment as to the standards to which the preservation ought to conform. To say 'the environment of' indicates that the standard is natural purity (whatever that might mean!), that the preservation should be to keep Lake Superior as "natural" as possible.

In other words, there seems to be a strong element in the concept of 'the environment' that has to do with nature, perhaps with a capital N.

Lucas went wrong in taking too seriously the idea that it is always incorrect to say that an entity is part of its own environment. This lead him to an incorrect analysis of 'the environment of Lake Superior,' since he needed an entity as the referent other than Lake Superior itself. On my account the entity is Lake Superior, and the environment of Lake Superior is Lake Superior.

It is helpful, then, to note that another major use of 'the environment' has to do with nature, or the natural. The claim here is not that this use is more common, but that it is perhaps more true to what the environmentalist, the environmental educator, and the environmental protection agencies have in mind when they talk about saving or protecting the environment.

It seems as though at least part of the use of 'the environment' is to imply a standard to be achieved or maintained, a standard which is perhaps best characterized as 'natural,' that is, prior to, or without,
the influence of man. On this account, to speak of "saving the environment of Lake Superior" is to say that the condition of Lake Superior should be the way it was before the advent of (at least modern) man, or to maintain it in such a way as its condition would have been had man not happened upon the scene.

In the extreme, the environmentalist is interested in environment qua nature. To say that someone is an environmentalist is to say that the person is interested in, not simply any old environment, not even just man's environment, but a special sort of environment. This environmentalist is concerned with trees, fields, forests, streams, rivers, and the like, and taken as natural environments. An environmentalist is not concerned with the growth of an urban slum except insofar as it affects the environment qua nature. The environmentalist who is concerned with preserving swamp and marshlands, desert areas, even the arctic areas, is interested in them as natural areas, even though his or her arguments are directed at man's long or short term interests. Indeed, at the extreme an environmentalist might hold that a lake, a river, a desert, an animal community, or what have you, actually has a right to its integrity. At any rate, let us take it that one interpretation of 'the environment' does include a strong element of naturalism.

But does all of this help much, or even at all? My belief is that it does, at least in a small way, help increase the clarity of

\[24\] The reader is urged to bear in mind that there may, of course, be environmentalists who are concerned with the quality of urban environments, without considerations of nature or the natural.

\[25\] See, for example, \textit{Should Trees Have Standing?} by Christopher D. Stone (New York: Avon Books, 1974), in which it is argued that natural
discourse using expressions like 'the environment.' Yet 'nature' and 'natural' are very problematic concepts. All that I would want to say on the matter is best said by John Passmore:

I wish I could wholly avoid using the word 'nature'. But if it is one of the most ambiguous it is also one of the most indispensable words in the English language. For the most part I shall, of necessity, be using it in the sense in which it includes everything except man and what obviously bears the mark of man's handiwork. . . . In another fundamental sense of the word—whatever is subject to natural law—both man and man's artifacts belong to nature; nature can then be contrasted, if at all, only with the supernatural. . . . The word 'environment' is often substituted for the collective 'nature'. . . .

Summary and Conclusions

In this chapter Lucas' distinctions between education in the environment, education for the environment, and education about the environment were noted and elaborated upon. The analysis in the following interpretations of the phrase 'environmental education': education simply in the environment, with the environment, or by the environment; education about the environment; education that was for or on behalf of the environment, or education that had little or no adverse environmental impact as a consequence.

These various forms have overlaps. For example, EE/by might also be EE/for; EE/about may be EE/in; EE/with may be EE/about, and so on.

25 (Cont'd) objects could have rights in the same way that corporations have certain rights and in the same way that an incompetent human being has rights even though he must have a guardian to exercise those rights for him. The most extreme position would be to hold that it is not just legal rights that are at issue, but some kind of innate rights. On that account a whale would have an innate right to life and could not be hunted for oil, etc.

The concept of 'the environment' seems to, in general, imply that there is something's environment in mind when the term is used (the referent) and in addition 'the environment' does not usually refer to everything, but to certain relevant components. Lucas notes a major use of 'the environment' implies that humankind is the referent, and man's interests determine the relevant components, in this, the homo-centric, use.

However, there seems to be another major use of 'the environment' where it implies 'nature' or 'natural,' and this may be the major use by environmentalists, etc. The referent is no longer mankind, even though man, in using the concept, undoubtedly picks out what is taken to be the relevant components, but does so on the basis of what is taken to be natural.

Thus there are three major divisions in the use of 'the environment': a) man's environment, b) nature, and c) other environments. On this account 'environmental education' could mean either a) education about, in, or for man's environment; b) education about, in, or for nature; or c) education about, in, or for some particular being's environment (for example, education about the polar bear's environment). Hereinafter I will limit the discussion to nature, or the natural environment.

The conclusion is perhaps best stated in terms of a set of questions which can only be answered when sufficient conceptual data have been amassed:

Is environmental interpretation

a) education in (a) the natural environment?
b) education with the natural environment?
c) education by the natural environment?

d) education about the natural environment?

e) education for the natural environment?

or,

f) a combination of these things?

It can be seen that the apparently simple question that started this study has become a very complex one, one that does not have a straightforward and simple answer. But some progress is made in recognizing the complexity of the problem.

In order to answer these questions, a prior question must be answered: What is education? Only when it is determined what it means to say that something is education can it be discovered if environmental interpretation is environmental education.
CHAPTER IV

THE CONCEPT OF 'EDUCATION'

What is sought in this chapter is an account of 'education' that will make clear a basic or fundamental conceptualization of it, an account that will distinguish among encounters where there is at least one party learning something as a result of that encounter. Thus the desired account of 'education' will enable the distinction among education, socialization, and those things that children and adults just happen to learn as a result of being in a society or being alive.

As James E. McClellan puts it,

... it is absolutely clear that we need a concept which distinguishes two very different sorts to things: the socialization of the young into a society as it just happens to happen (as a more or less inevitable by-product of the on-going life of a society) and the socialization that is consciously, deliberately contrived to accord with fairly explicit standards of rationality and benevolence.¹

I want to say 'learning' instead of 'socialization,' because 'socialization' seems to be too narrow a concept for matters of environmental education and interpretation. Nevertheless, the concept 'education' must be elucidated in such a way that not everything that occurs in a person's life which results in learning² counts as education.

The account, then, must allow as education such things as a parent's teaching a child how to drive a car, or a person's attendance

²No attempt will be made to give an account of this concept.
at night school, but not allow statements like,

Still there are modes of behavior, preference, and judgments that we learn in a thousand subtle ways as "the American way of life." We are educated to it and by it.

And,

Nor should we omit from our consciousness the educative power of agriculture and industry in any society. For how else do we acquire our attitudes toward nature than by the educative influence of these institutions?³

The major reason for restricting 'education' to only certain sorts of things is that to allow everything to count as 'education' is to render the concept meaningless. If all learning that occurs in society is educational then the term no longer serves to convey meaning, it no longer designates something about society. Additionally, from a theoretical standpoint such a concept would be quite useless: if someone wanted to study environmental education s/he would have to study everything in the entire society, every learning event, and that is an impossible task.

To put the same point in a different way,⁴ it may be that the concept has no central meaning in common usage, yet it may be useful to have a concept which can be used to contrast 'education' with those other things that happen in society. As Wilson says,

... we may often have to say at the end 'Amid all these possible meanings of the word so-and-so, it seems most sensible and useful to make it mean such-and-such: for in this way we shall be able to use the word to its fullest advantage.⁵

³Green, op. cit., pp. 216-17.
⁴Following Wilson, op. cit., pp. 36-37.
⁵Ibid., p. 37.
My strategy in this chapter will be to deal with the concept of 'education' in terms of its evaluative, descriptive, and mixed uses. Simply put, 'education' can be used to describe something, perhaps a process, but not necessarily evaluate that process. It can also be used to evaluate, but not describe anything. In this use, to say that "X is education" is to say that X is good; in the descriptive use to say that "X is education" is to say that X has certain characteristics, but there is no implication that the speaker approves or disapproves those characteristics. In a mixed use of 'education' the term implies that whatever is said to be education has certain characteristics and those characteristics are at least in part approved (or disapproved).

After discussing the descriptive and evaluative uses of 'education,' a workable definition will be decided upon. Then this definition will be applied to the concept of environmental education, applied to some test cases, and then, as far as possible, applied to 'environmental interpretation.'

The Descriptive Use

Soltis provides a useful starting place for a discussion of 'education.' He notes that in one sense of education,

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7 The term 'education' is problematic for a number of different reasons, and to engage in a study of this concept is tantamount to plunging into a veritable hornet's nest of problems: there are many of them, they are hard to catch, they are nasty, and they will sting you when you aren't looking (and, sometimes, even when you are!). One of these problems has to do with process/product ambiguity (See, for example, Green, op. cit., pp. 34-88.): the term 'education' can refer to a process ("We are thoroughly educating our youth") or a product ("he has a meager education"). I will, for the most part, ignore this
Part of the mental baggage carried along with the idea of education is the notion that education is valuable and that what people are to learn is valuable.

But he goes on to argue that this is not the whole story.

Granted all of this, it should not be difficult to see that is another dominant use of the ordinary notion which is not so value laden. If I refer to German education in the 1930's under Hitler, I am not necessarily assuming that something worthwhile was going on or that something of value was being passed on. Indeed, it would not be a logical contradiction for me to hold that the German youth of that period were educated quite successfully and yet also hold that German education under the Nazis did not constitute the passing on of something of value nor did it produce a desirable state of mind in the youth of Germany.

The problem is to try to determine what it is that is being described in the objective use of 'education.' What is needed is an account of what is being said when someone says that X is education-d, or, what are the implications of saying that something is education-d, in order to find out what is meant when someone says, e.g., "education in Nazi Germany was thorough or (what else?) efficient." Presumably a lot of learning occurred in Nazi Germany—is all this learning what the speaker has in mind? Were all attempts education? Probably not, so

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7 (cont'd) distinction and treat the term as though it was not subject to process/product ambiguity. There is some danger in doing this, but I think that, for the most part, what I say applies to both senses. At the end of the chapter I will have developed some criteria for something to be a case of education: the criteria will work equally well with both senses. Thus if the criteria are not met, the process of education is not going on, and also if the criteria are not met, the product (state of mind) is not education. Nevertheless, my main concern is with the process sense of 'education,' not the product. Thus, if the ambiguity bothers the reader, read 'education' as referring only to process.

8 Soltis, op. cit., p. 12, based upon R.S. Peters' claim.

9 Ibid., pp. 17.

10 'education-d' = 'education used as a descriptive word.' Likewise for education-v, education-vd, etc., mutatis mutandis.
one might expect that learning only under certain conditions is being described.

Donna Kerr\textsuperscript{11} attempts to provide a general definition of 'education' which may be profitably looked at:

So then our general description is still satisfactory, for with it we are claiming only what minimally must be the case for an enterprise to count as education. That is, in order to be engaged in education one must be trying to develop at least some belief, attitude, skill, disposition, value, understanding, or taste. Correlatively, if one is not trying to develop at least one of these, then one is not educating under any view.

I believe that we can accept without much difficulty the idea that (a) trying to develop (b) some belief, attitude, skill, disposition, value, understanding, or taste are each necessary conditions for education. It would seem odd indeed to talk about educating-d someone but the result of that was something other than some belief attitude, skill, disposition, value, understanding, or taste. On the other hand the definition is too broad. The definition Kerr gives describes the content, that is, the "stuff" that would be transmitted in education, the objective or purpose of engaging in education (e.g., the formation of values in the student), and includes the necessary condition of 'trying,' which makes education-d a purposeful endeavor or activity.

But should any method, any set of activities, be allowed? Should beating a child count as educating-d him, assuming that the beatings were administered in an attempt to get him to accept a belief? Or would giving someone a pill to form new, and desired (aimed at), behaviors count as education-d him, assuming that that was the point of the enterprise?

Take the pill case for a moment. Assume that we have a capsule that, when ingested by a human being, will result in the formation of belief. That is, depending upon the capsule, after ingestion the "student" will come to hold a belief that something or other is the case. We can imagine a "pedagogical pharmacopeia" containing capsules for the formation of all sorts of beliefs, etc., such as one for believing that sex is evil, or another for believing that the earth is cubical, and another for...

Although such a situation is not now possible, and may never be possible, it doesn't matter. What does matter is that if it were to happen we would not call it education-d. We would call it something else, like chemo-belief formation, or mind-drugging.

Our reluctance is not simply a matter of moral repugnance, (although it is repugnant) but rather that the concept of education-d has, as a necessary condition, some restrictions on manner (perhaps not many): one must carry out the formation of belief, attitude, skill, etc., only in certain ("conceptually permitted") ways. "Brain washing" is not one of the permitted ways, and thus Vietnamese "Re-Education Camps," insofar as the methods used fail to meet (yet to be specified) criteria, are not engaging in education-d.

R. S. Peters provides some criteria that will help to make the sort of distinction sought here. He says, "the criteria implicit in central cases of 'education' are...

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12It should be pointed out that this account that I am seeking is not one that necessarily captures all or even most uses of the term 'educate.' What is needed is rather an account that will do certain things for the study: facilitate distinguishing all the learning situations into some that seem closely related to environmental education and those that do
(i) that 'education' implies the transmission of what is worthwhile; 
(ii) that 'education' must involve knowledge and understanding and some kind of cognitive perspective which are not inert; 
(iii) that 'education' at least rules out some procedures of transmission, on the grounds that they lack willingness and voluntariness on the part of the learner.\textsuperscript{13}

His second and third criteria are of interest here and for now the first will be set aside. These two criteria will serve the purpose, provided that the second is made more clear. It is interpreted here as meaning something like "on the basis of reasons." This interpretation parallels what Green and Scheffler have to say about the verb 'to teach.' Thomas F. Green says: ". . . teaching is that activity of education aimed not simply at transmitting reasonable beliefs, but transmitting them in such a way that they become believable; i.e., so that they become reasonable to believe for this or that particular person."\textsuperscript{14} [emphasis in original] Not that teaching and education are by any means conceptually identical, but that they are related is, I take it, undeniable. Certainly we could say that if one carried out the transmission of belief on that concept of teaching, then he would also be educating.\textsuperscript{15} A similar interpretation is suggested by Scheffler,

Every culture, we may say, normally gets newborn members to behave according to its norms, however these are specified, cont'd) not seem to be.

The account to follow is controversial in that it is taken by many to go beyond a strictly analytical account of the uses of the term 'education.' I do not agree with this position. It seems that the account does capture a central notion of 'education.' It does not capture other uses, and doesn't have to, provided it at least comes close to one of them. Controversial or not, it is still usable.

\textsuperscript{14}Green, \textit{op. cit.}, p. 103.
and many cultures have agencies devoted to this job. But not every way of getting someone to behave according to some norm is teaching. Some such ways are purely informal and indirect, operating largely by association and contact, as languages are normally learned. But not every formal and deliberate way is teaching, either. Behavior may be effectively brought into accord with norms through threats, hypnosis, bribery, drugs, lies, suggestion, and open force. Teaching may, to be sure, proceed by various methods, but some ways of getting people to do things are excluded from the standard range of the term 'teaching'. To teach, in the standard sense, is at some points at least to submit oneself to the understanding and independent judgment of the pupil, to his demand for reasons, to his sense of what constitutes an adequate explanation. To teach someone that such and such is the case is not merely to try to get him to believe it; deception, for example, is not a method or mode of teaching. Teaching involves further that, if we try to get the student to believe that such and such is the case, we try also to get him to believe it for reasons that, within the limits of his capacity to grasp, are our reasons. To teach is thus, in the standard sense of the term, to acknowledge the "reason" of the pupil, i.e., his demand for and judgment of reasons, even though such demands are not uniformly appropriate at every phase of the teaching interval.15

If these passages from Green and Scheffler do in fact capture what Peters has in mind in criterion (ii) then they can be applied as the conditions of the clearest case of 'education-d.' In that case there would be a person (a teacher) who engages in some activities in order that the other (a student) will come to believe, value, etc., on the basis of the reasons. In addition the student (and teacher) engage in the enterprise freely and wittingly, and are free to break it off whenever desirable.

At this point it should be said that it may be that there is seldom a case of education meeting these criteria. This is perhaps true, but not a challenge to the account given. For one thing, I think that

15Scheffler, op. cit., pp. 57-58.
the application of the term has much to do with degree. The concept is vague, and perhaps there are never cases where all the criteria fit perfectly. This "difficulty" can be dealt with in the following manner:

- Ascribe 'education' to a particular case is to say that it meets the criteria to a degree deemed sufficient by the speaker.

- In a similar way to say that something is heavy is to say that it meets certain criteria or standards of weight to a degree sufficient in the eyes of the speaker to be called heavy.

This is not to make a value judgment, but it is to make a judgment. As Nagel terms the differing judgments, a value judgment is a judgment of appraisal, while the judgment that something is a case of education-d is a characterizing judgment. People may disagree on whether the case meets the criteria to a satisfactory degree, yet the criteria will help to, in general, distinguish between what is clearly education-d and that which is clearly not.

- It would be worthwhile to test the account out by applying it to a few test cases, to see how well it stands up, how well it works.

First, "German education under the Nazis in the 1930's." On the account given above we would be only talking about certain kinds of things, not all (or any) situations where someone tried to get another to believe, behave, etc., and would rule out "brainwashing" and related activities on the part of the Gestapo, SS, and their kinfolk, which is as it should be. Regardless of the value of what was passed on, ruled out are some sorts of encounters on the grounds that they lack a concern

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for the reason of the pupil or student, his demand for the assessment
of reasons, or that they lack wittingness and voluntariness on the part
of the pupil.

However, given particular cases it is not always easy to tell if
it is education-d or not. Consider, for example, these two:

They [the cheetah cubs] followed discreetly or watched
while she hunted. A female may even provide her cubs
with the opportunity to learn the techniques of killing.
My wife, Kay, watched a cheetah carry a live gazelle fawn
to her five-month-old cubs and release it. They tried to
capture it, and once they knocked it down but were unable
to kill it. Finally the mother did so.17

The question would be, Is this a case of education? Well if it is,
it is certainly at the extreme. There is a matter of vagueness. This
appears to be a deliberate contriving of a situation to make learning
probable. It is not as though the cheetah just happened to bring home
a fawn. It brought the fawn home in order to give the cubs an oppor-
tunity to practice killing. (If the reader is hesitant to attribute
deliberate acts to cheetahs and other such beasts, then just pretend
they can do it. The point is hardly crucial here.) So there was a
trying. And it might be said that the cubs were witting and voluntary,
insofar as they could be witting and voluntary—to the extent that we
believe they are not witting and voluntary participants it would be
difficult to attribute education-d. But there is a definite breakdown
in the area of procedure. Appeal to reason in any human sense seems to
be lacking, and to that extent we cannot attribute education here. In
any case, it is not altogether clear that this is a case of 'education-d,'

17From "The Gentle and Elegant Cat," by George B. Schaller, in Natural
History, volume, number and page unknown.
which is the point of the example: there are borderline cases in the concept of education.

Another example is this:

But to the villager this toughening-up process is essential and does not come naturally in the course of village life. The child has to be fitted for adult life, and this is what the nkumbi sets out to achieve. . . . The process is not a pleasant one, but it is the only way in which, under tribal conditions, the goal can be achieved.19

What is to be noted here is that, again, it is a deliberate attempt to change the child. But is it education-d? Not unless we posit wittingness, voluntariness, and a reason-giving discourse between the children and the adults.

This indicates that education-d ranges over a wide spectrum of encounters ranging from the cheetah case at the fringe of applicability of 'education-d' through that stuff that goes on in our institutions of learning up to a paradigm case of education-d. To posit a general rule: to the extent that the encounter, considered over some stretch of time, fails to have present

(i) a trying on the part of one member of the encounter to bring about in the other member a

(ii) belief, attitude, skill, disposition, value, understanding, or taste, and under the conditions that

(iii) a witting and voluntary partner in this enterprise, then, to the extent that these are missing or deficient, we are less likely to call it a case of education-d.

At this point some progress toward determining in what way environmental education can be education has been made: that is, to the extent that it meets the criteria (i) through (iv) above. The exact application of those criteria to the many distinctions made with respect to environmental education to this point will have to be postponed. There is more to be done with the concept of 'education-d,' and it is to that task that I now turn.

Schooling and Education: a substantive distinction. For my purposes it will be desirable to be able to distinguish amongst all possible education-d that which has as a unique and significant feature, viz., that it takes place under the auspices of the school.

In some contexts 'education' and 'schooling' have the same meaning. For example, one is often asked to include in an application for employment one's education. One may just as well be asked for one's schooling: what is being sought is a summary of the institutions that one has attended and the diplomas, etc., received therefrom. If one is asked, "Where did you receive your education?," the proper answer is in terms of the institutions of education, the same answer to be given for, "Where did you receive your schooling?"

Although there are contexts where the terms 'education' and 'schooling' may be interchanged without a change of meaning, that does not mean that they always mean the same thing. As Richard Pratte points out in a similar fashion, it seems to make sense to ask, "Are you

19 Similar, because he was, I believe, taking 'education' in its evaluative sense, while here I am concerned to restrict its usage to only the descriptive sense.

educating Tom by schooling him in geometry?" We can ask, "Is Tom's schooling education?" The answer to this question will depend upon the extent to which criteria (i) through (iv) are met. It makes sense to ask the question, "Is Tom's schooling education?", and it is certainly imaginable that we could find that Tom received no education during his years in school. This finding would not be logically possible if 'education-d' and 'schooling' were exactly the same thing. In that case it would be a question of the sort, Is A, A?, the answer to which is obviously, and trivially, Yes, A is A. Hence, 'education-d' does not always mean the same thing as 'schooling.'

Now I must turn, albeit briefly, to the concept of 'schooling.' Pratte offers a workable account of the concept, sufficient, for the most part, for my purposes. As he puts it,

Schooling, then, consists in teaching—be it instructing, indoctrinating, training, or conditioning—someone under the auspices of an institution called a school.

and,

In order that instruction given in a school qualify as schooling, it must exhibit three characteristics: (1) it must be given under the auspices of a school; (2) it must be carried out and supervised by school personnel; and (3) it must be given by other persons.

and, finally,

... the paradigmatic formula for schooling is T teaches S, under the auspices of the school.

Aside from the obvious circularity of these characterizations (if we do not know what a school is, then we are not likely to know much more about schooling that we did at the outset— it seems that what

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21 Pratte, ibid., p. 17.
'school' means is precisely what is at issue) they will be useful in distinguishing between education, say "in general," and a particular part of it that is significant in our society. Circularity can be avoided by simply saying that whatever it is that the reader wants to take as the concept of 'school,' so be it. For my part, I believe it will be useful to have as the meaning of 'school' that official, bureaucratized system, the attendance at which is legally required for at least part of a person's life.

The most significant condition of schooling for my purposes is that it is ostensibly education given under the auspices of an institution called a school. With this condition in hand, then that formation of belief, etc., which is required can be distinguished from that which is voluntary and witting. Of course it is easy to see that even though a student is legally required to attend school, perhaps even attend a certain class or program, it doesn't also follow that a particular student feels in any way constrained to attend the classes—s/he may well want to do so without respect to any legal requirements. But, for my purposes, I will ignore such issues, and take as schooling that which is legally required.

More has to be said about schooling. American schooling is usually carried out in certain kinds of locations, namely school buildings, in classes of varying numbers, but commonly around 25 or 30 (and often more) students, and often in a rather structured and contrived situation.

Note that, given the wide range of encounters that may be considered as educational, environmental education may fall at any place. Schooling, given that it is educational at all, may include or exclude
environmental education, depending whether the interest is more in whether the case meets educational-d criteria (i)-(iv), whether it is more toward the auspices, or whether the concern is to treat 'education' as strictly equal to 'schooling,' without regard to the criteria (i)-(iv).

The Evaluative Use
I will now turn to the evaluative use of 'education.' Here I will ignore any descriptive implication that may in practice accompany the evaluative usage. Peters is the starting point from which I will work, so it is worthwhile to repeat what he has to say on the matter:

'Education' relates to some sorts of processes in which a desirable state of mind develops. It would be as much of a logical contradiction to say that a person has been educated and yet the change was in no way desirable as it would be to say that he had been reformed and yet had made no change for the better. . . \(^{22}\) something of value should be passed on. . . \(^{23}\) the truth is that being worthwhile is part of what is meant by calling it education. . . \(^{24}\)

In the evaluative use, a necessary condition of saying of something that it is education-\(v\) is that the speaker takes the state of mind, that which is learned, as valuable or worthwhile. That is, the belief, attitude, skill, disposition, value, understanding, or taste that is the result of some (here unspecified) process or encounter or (perhaps) series of events or "happenings" is taken by the speaker to be valuable.

\(^{23}\)Ibid., p. 17.
\(^{24}\)Ibid., p. 18.
Tratte observes in this regard, that,

... the distinction between schooling and education
-turns upon the degree to which we wish to empha­
size our value commitments in the formal guidance and
direction of human development from generation to gen­
eration. We may say that in the proportion that the
value commitments for the instruction of students do
not conflict with what the school is in fact attempt­
ing to do, it is easier to use the words schooling and
education interchangeably. In the proportion that the
value commitments for the instruction of students do
conflict with what the school is in fact doing, the
term schooling is employed for what the school is
attempting to achieve, and the term education [v] is
then reserved for what the school ought to be
achieving.25

If what we take the school to be doing what we think is worth­
while, then we are likely to call it education-v. On the other hand,
if we do not think what is being transmitted in the schools is worth­
while, then we are reluctant to say that it is education(al)-v.

Thus when Harry Caudill26 said on the National Public Radio pro­
gram All Things Considered27 something to the effect that in times past
the people were educated but unschooled, while now they are schooled
but uneducated, "and there is a world of difference" and that is part
of the reason that there is so much environmental destruction in
Appalachia, he was saying in effect that schooling was not transmitting
that which he took to be valuable, but was rather failing to transmit
the environmentally worthwhile. The world of difference' is found in
what he takes to be valuable, not necessarily any descriptive differ­
ence in terms of how it is carried out, or what particular things are

26:Author of Night Comes to the Cumberlands, and other books pertaining
to matters environmental.
transmitted. The point is rather that the schools are transmitting the
wrong, or at least not transmitting the correct, things. And that, of
course, is a value judgment.28

Now it would be nice if things were just that simple, if educa-
tion-v had just a positive evaluative use, and that whenever we used
'education' as an evaluative word it meant that we approved of that
which was transmitted. But such is not the case, for 'education,' as
well as 'schooling,' are also used in a deprecative sense as well.
Some people use 'education-v' to imply that they take the state of mind
that results from some process, encounter, or what have you, to be not
worthwhile, but rather to be worthless, or even detrimental.

Holt: In Instead of Education, John Holt exemplifies the usage of
'education' as a negative evaluative word. He says,

Not all persons will give the word "education" the meaning
I give it here. . . . But I choose to define it here as
most [] people do, something that some people do for
others for their own good, moulding and shaping them, and
trying to make them learn what they think they ought to
know. Today, everywhere in the world, that is what "educa-
tion" has become, and I am wholly against it.29

To make it clear that he is not using 'education' as 'schooling' I
present the following:

Education, with its supporting system of compulsory and
competitive schooling, all its carrots and sticks, its

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28Not that there is anything wrong with value judgments, expressions
of approval, and the like. The point is rather that we ought to be
aware of when they are occurring and when they are not. The reference,
then, of the usage of 'education-v' is the speaker and his values or
attitudes, while the reference of a use of 'education-d' is the thing
described or said to be education. In other words (and we will return
to this point) the usage of 'education-v' tells us about the speaker,
while a usage of 'education-d' tells us about the process, etc.; it
describes the X in "X is education," while the former "describes" the
speaker.

29John Holt, Instead of Education, p. 3 (New York: R. R. Dutton and
Co., Inc., 1976) p. 3.
grades, diplomas, and credentials, now seems to me perhaps the most authoritarian and dangerous of all the social systems of mankind. 30

What appears to be happening here is that 'education' is being taken by Holt in some negative sense; what is being transmitted is something other than what is worthwhile or what ought to be transmitted. 31 Such a use is paralleled in the situation where one may say to another, "Don't waste your time on education, go out and get a job and do something worthwhile," or, "We don't want our children to get an education if it means that they will lose their souls." Thus it appears that 'education-v' can be, and sometimes is, taken to have negative implications: to say that something is a case of 'education-v' in the negative sense is to say that it is disapproved of.

Thus sometimes 'education-v' implies that the thing said to be education(al) is worthwhile or good, while at other times the thing is evaluated as being worthless or detrimental. Matters get more complicated.

Schooling. In Sailing Alone Around the World Capt. Slocum says,

But above all to be taken into account were some years of schooling, where I studied with diligence Neptune's laws, and these laws I tried to obey when I sailed overseas; it was worth the while. 32

30 Ibid., p. 4.
31 Another interpretation is that he is taking the process to be inherently evil or immoral. If this is true then the point is not completely invalidated, it is just that the thing said to be immoral (etc.) by the use of 'education-v' is other than the state of mind that results, the product.

At any rate, the point is relatively unimportant: if the evaluation can apply to the process of education, or the product of education, or both, then so be it.

His use of 'schooling' here (metaphorically perhaps) refers to the 35 or 40 years as a seaman, mostly as mate or master, not to any official education. Although the use might be metaphorical with respect to what is being described, the point of calling the stuff learned 'schooling' is to suggest to the reader that it was useful and well learned. To say that something is schooling is to approve of it. The context is clear on that use: he wants us to realize that during those years, even though they were not spent in any classroom, much of value was learned, and learned well. At least an occasional use of 'schooling-v' implies that the speaker approves or values the learning that has taken place.

Schooling, again. As might be expected, there is a case of 'schooling-v' where the use is that of negative evaluation. What is needed is an example where 'schooling' is used at least to negatively evaluate. It would be acceptable, though, if the example also described, because we can separate in thought the evaluative from the descriptive uses for examination.

One example has already been used above (p. 79) but will serve again. 'In the old days the people were educated but not schooled; now they are schooled but not educated. There is a world of difference.' The use here of 'school' is to imply that the state of mind that resulted was not valuable. In the context it is clear that the point of 'school' is that it was responsible for what Caudill took to be the environmental degradation that occurred in Appalachia. 'School'

33 Note, again, the possibility of process/product ambiguity.
34 Caudill, **loc. cit.**, 4-8-77.
is not merely a descriptive word in this context, it also serves notice that there is an implicit disapproval of what was transmitted.

Another example is from Holt and although it is not as succinct and to the point as I wish, it will serve:

The chief products of schooling these days are... stupidity, ignorance, incompetence, self-contempt, alienation, apathy, powerlessness, resentment, and rage. We can’t afford such products any longer.

Given a perspective such as Holt’s, in statements like, "If you want to get an education, then stay out of school," or, "People are not against education, they are against schooling," the terms 'schooling' and 'school' would have a definite evaluative implication of the sort, "X is schooling" means (in part, at least) "X is bad or detrimental (etc.)"

The point to be made with respect to the foregoing examples is that the words 'education' and 'schooling' serve to inform us about the speaker’s evaluation of something, not to describe it, at least to the extent that the term is used in the evaluative sense. It must be understood that the speaker is making a value judgment with respect to the state of mind that results from some process or other. Usage is not standardized on this matter, and it is usually the context that tells us how we are to take the term.

In any case, people should be on guard when interpreting statements using the words 'education' and 'schooling,' to ascertain what, if any, evaluation is being implied.\[36\]

\[35\] John Holt, "Why We Need New Schooling" Look 1/11/70 (?), p. 52.\[36\] For an account of the proliferation of evaluative meaning see Appendix A.
The Selected Sense of Education

I have distinguished between descriptive and evaluative uses of 'education,' indicating that the descriptive use is vague, and that within the evaluative usage of 'education' the term may be used to both negatively and positively evaluate, and that there are also positive and negative evaluative uses of 'schooling.'

It is unlikely that there are many occasions where 'education' is used as either exclusively as a descriptive or as an evaluative word, that is, most uses are mixed. I am inclined to suspect that the dominate use is descriptive to some degree as discussed above and positively evaluative, but the actual frequency is irrelevant for the task at hand now, which is to determine which use is the most philosophically powerful. I shall not be constrained in this task to any uncritical adherence to the inherent casualness found in natural languages. I shall use, rather, what is fruitful, and discard the rest.

The first selection to be made is between a purely evaluative use and a purely descriptive use. If 'educate' is used to merely evaluate, then the use of the word will simply indicate the speaker's value judgment, whether he takes the thing called 'education' to be worthwhile or not, but does not convey any descriptive information about what it is that is said to be education(al). This use, in effect, ranges from the equivalent of a pleistocene "Ugh!" to "X is judged to be worthwhile," but fails to tell what "X" is. This is unsatisfactory because we would want a conceptualization of 'education' that does more than inform us of the speaker's evaluation, but also tells us of the thing being evaluated. Hence, I will have to rule out a purely evaluative
use, and opt for one that is mixed, at least.

But why not a meaning that is just descriptive? To do this would ignore the conceptual fact that, for the most part, we generally do take education to be worthwhile, and to ignore this would tend to cause an undue restriction on the concept of 'education.' Thus a mixed use in which the concept is used to evaluate as worthwhile the state of mind that develops as a result of a particular kind of encounter that is, in its value, understanding, or taste in a way that includes that the formation is on the basis of reasons that support the belief, etc., and that the student is a witting and voluntary partner in the enterprise. (see above, p. 74) I will not rule out, or ignore, the existence of vagueness in the concept. That is, I will recognize that the amount of reason giving and the degree of wittingness and voluntariness may vary from time to time, but that if it is never present then we would have to withdraw an assertion that it was 'education.'

Thus, (a) 'education-v' is not conceptually powerful enough, and (b) a negative evaluative use of 'education-v' is spurious and to be ignored, except to the extent that we are aware that there is that spurious usage.

And what of the concept 'schooling?' Here I believe it is best to restrict 'schooling' to a descriptive use as described above (p. 76), a concept that may or may not fit into the range of 'education' depending on the extent to which it meets the descriptive criteria for 'education.' It is an open question whether schooling is good or evil, but it is possible that 'schooling' as a descriptive concept falls within the range of 'education-d,v', albeit vaguely (i.e., we are not
a priori sure to what extent schooling-d is also education-d, because
we do not know to what extent it meets the criteria of 'education-d').

Is Environmental Education Educational?

I am now at the point where I can apply the foregoing analyses to
that question. As before, I will not look at all the possible combin­
atations of the concepts 'environmental education,' or 'the environment,'
but will, rather, restrict the matter to those combinations that seem
interesting or fruitful.

Education about the environment: In order for a **/learning encoun­
ter to count as education about the environment it must be the case
that (a) what is transmitted, the state of mind that results, is taken
to be worthwhile or valuable, and (b) criteria (i) through (iv)
are met, at least minimally. The state of mind that results is worthwhile,
although not necessarily worthwhile in terms of any benefit to the
environment but could be worthwhile in terms of something like mental
discipline, mental skill acquired, or even ability to earn a living.
But there must be some minimal value in it, or it isn't a case of edu­
cation. Also, whatever is transmitted must be done in such a way that
(if it be beliefs) those beliefs are accepted on the basis of reasons,
and so on.

Education in (simpliciter) the environment: in order to a **/learn­
ing encounter to count as education is (S) the environment (here let
"the environment" mean "in the natural environment, the out-of-doors),

37A qualification is in order: (a) do not know clearly the conceptual
relationship, or (b) do not know empirical facts necessary to make the
decision.

38Hereinafter, simply "the criteria". See page 74 above.
it must, of course, occur there, but what occurs must meet the criteria and also that which is passed on must be worthwhile, although it doesn't necessarily have to do with nature or be for nature. It should be noted that simply taking one's 5th grade class out of doors does not necessarily constitute education in the environment, although it may be schooling in the environment. It depends not only on what was transmitted, but the way that it was transmitted, and whether the situation also meets the other criteria as well. I will return to this business shortly.

Education "by" the environment: It will be recalled that I distinguished a certain kind of (perhaps spurious) education in the environment (p. 46 above), education by the environment. I am now in a position to see if this makes sense or not.

Presumably the learning of something because of the contact with nature or the natural environment could be worthwhile, and if it were then we would meet the worthwhileness criterion. Thus if there is inspiration had by witnessing a spectacular sunset, or from viewing the Grand Canyon, then this is taken to be worthwhile and at least the evaluative criterion for the selected sense of 'education' is met. 39

But what of the criteria (i) - (iv)?

First, note that it doesn't seem possible to have an appropriate filler for the blank in ' **/learn encounter,' a filler, that is, that can meet the requirement of reason giving, particularly since 'nature' is not the sort of thing that can literally teach or any other sort of

39 If the evaluative meaning alone was of interest, then **/by would not be problematical.
deliberate, purposeful activity. To think that nature can teach, etc., is to hypostatize nature, to give it human characteristics, which it doesn't have. One would want to ask, for example, what nature did when it taught someone, that is, what activities it performed to bring about learning, and we would want to also ask, did it perform them well? These are, I take it, meaningless, inappropriate questions, for nature is not capable of teaching (etc.) The criteria cannot be met, so education "by" the environment is literally nonsense.

But people do say things like that, and we may wonder what it is they may be saying. The answer stems from the analysis of 'education-v', and in a case like this the person is saying that he approves of the state that results from experiences in nature. He is, however, describing nothing in terms of education-d.

For a final case, take education on behalf of (for) the environment. This concept meets the criterion of worthwhileness, since I take it that if someone says that "X is education for the environment" s/he is implicitly approving the state of mind that results from "X", for that is what is meant by saying that it is for the environment. But it also must be carried out within certain restrictions, the criteria, and thus to say that something is education for the environment must imply, among other things, that the state of mind that results is attained by, inter alia, the attention to good reasons. Thus someone who comes to hold a belief that one ought to protect the environment from pollution but holds that belief without reasons has not undergone education for the environment, except in the evaluational sense of 'education.'
On the other hand, someone who was presented with good reasons for holding that belief, and holds the belief on the basis of those reasons, would have that state of mind as a product of education.

The upshot of this is that not just any activity, regardless of judgment of the worth of the resulting state of mind, can be environmental education. It must be carried out in a certain way.

Turning to another distinction made above, that of 'schooling,' it seems a basic mistake to uncritically equate 'education' and 'schooling;' they are not necessarily identical concepts. Thus within a larger realm of education there is a province of schooling, whose position in the realm is a function of the degree to which it meets the evaluative and descriptive criteria of 'education.' There is, thus, environmental schooling, which may or may not be educational. Schooling for the environment may meet the evaluative criterion (i.e., be worthwhile) yet not meet the descriptive criteria, and hence not be environmental education. And schooling about the environment may meet the descriptive criteria but not the evaluative (it may be deemed, for example to be environmentally deprecative—vide, Caudill above p. 79) criterion, and thus not be environmental education. The conditions to be met for schooling are not the same as those for education, so we can, and must, ask, "Is environmental schooling educational?"

Test Cases. It is worthwhile to see if the criteria work well in some test cases, some cases where one may wonder if they are cases of environmental education.

Case 1: If some group were to assert that its goal was to re-"educate" the public so as to stop uncontrolled commercial development and the
resultant environmental degradation through terrorist methods, such as bombings, extortion, and similar methods, it might be agreed that if it worked it would be worthwhile, and it might be agreed that these are the appropriate methods. But, regardless, it is not environmental education, and to say that it is is to abuse the concept of 'education' and mislead people who believe, on the basis of the group's public statement, that they are engaged in environmental education. It may be that environmental terrorism (terrorism for the environment) is a necessary or legitimate activity, but it is not an educational activity. Note that if the participants engaged believed that it was education then they could mis-direct their efforts. They would be well advised to structure their terrorism within the bounds of that concept: to think of it in terms of education would mean that they would put an undue limit on the methods that they can employ. They could not (logically could not) do certain things if they were to act on the basis that they were an educational organization. Rather, they should act as the concept of terrorism allows: virtually anything goes, as long as it is effective.

Case 2: Consider an environmental action in support of the passage of national bottle deposit legislation. It consists of sending an empty refreshment can to President Jimmy Carter. This is obviously aimed at getting the President to support the legislation, but it is not within the conceptual bounds of education, so it cannot be environmental education of the President.

Case 3: Consider "Doom and Gloom" books that predict the imminent downfall of the ecosystem with dire results for mankind. Insofar as
the beliefs in that downfall are not brought about on the basis of good reasons in the text, they are not cases of environmental education, regardless of the desired behaviors that result. Appeals to fear are not considered as good reasons for the acceptance of a belief. This might be environmental propaganda, but one could wonder if such approaches have a place in a society that would value beliefs based on good reasons.

Is Environmental Interpretation Environmental Education?

The answer is: insofar as environmental interpretation is an activity that meets those descriptive and evaluative criteria for 'education' and is an activity that is either in, for, or about the environment, then it is environmental education.

Summary and Conclusion

A definition of 'education' as (i) trying by one member of an encounter to get another member of an encounter to (ii) attain a belief, attitude, skill, disposition, value, understanding, or taste; under (iii) conditions that the student comes to hold that belief, etc., on the basis of reasons that support the belief, etc., and (iv) the student is a witting and voluntary partner in this encounter, will serve to satisfactorily pick out from all the possible ways of getting someone to learn something, those which we would properly call education, and this account will not severely strain our ordinary language notions of 'education.'

Such a definition will, for example, allow one to talk about schooling as a different sort of thing than education, and permit one to ask
if schooling is education.

There is another sort of use of 'education' that any definition must not ignore, the evaluative use. In this use to say that something is 'educational' is to say that it is approved of, or, often, disapproved of. Much the same can be said for the evaluative use of 'schooling.'

The most useful concept of 'education' will include the descriptive implications of criteria (i) through (iv), and a positive evaluative implication as well. 'Schooling' will be left evaluatively neutral.

With that conceptualization, a pedagogical encounter that meets criteria (i) through (iv), with a resulting state of mind that is deemed valuable, will be considered as environmental education if it is in, with, about, or for the (natural) environment. Education "by" the environment is educational only in the positive evaluative sense, as the other criteria are not met.

This would leave open the question, and also make clear the underlying distinction, "Is environmental schooling education?" It also permits a scheme for determining if environmental interpretation is education. It would be if the criteria were met. Meeting the criteria would not imply that interpretation was schooling, however.

It should be noted that the criteria can be divided into product conditions and process conditions. Criterion (ii) is a product condition, as is the worthwhileness condition, while (iii) and (iv) are process conditions. This division will be reflected in chapters V and VI to follow.
CHAPTER V

THE PURPOSE OF INTERPRETATION

In this chapter I will examine the various purposes claimed for environmental interpretation. The investigation will focus on the goal(s) that are aimed at in environmental interpretation irrespective of the method of interpretation, that is, regardless of the way that interpretation is practiced. I will see which of the goals\(^1\) are shared with education, and which are not.

This chapter will address interpretation in light of the first two criteria required for something to be a case of education,\(^2\) that the encounter be (i) a "trying" on the part of one member of the encounter to bring about in the other member a (ii) belief, attitude, skill, disposition, value, understanding, or taste. Since the other two criteria have to do with the way that (ii) is brought about, consideration of interpretation from that perspective will be postponed until Chapter VI.

The strategy will be to discuss some preliminary considerations, then the proliferation of purpose found in the literature. A discussion of the constitutive purposes of \(\text{EI}\)^3 will follow, and the findings will be used to show both the relationship and the difference between

\(^1\) I will use the words 'goal,' 'purpose,' and 'aim' interchangeably, the use being based on considerations of euphony, not logical difference.
\(^2\) See p. 74 above.
\(^3\) \(\text{EI} = \text{df environmental interpretation} = \text{df interpretation. All, of course, are the pedagogical sense of 'interpret.' (See above, p. 31)\)
Preliminary Considerations

Intentionality. The first thing that must be noted is that, whatever else there is to say about the activity of interpretation, the activity of interpretation is an activity aimed at some goal.

How do we know this? Why must it be the case that interpretation have a (some) goal? If EI did not have a goal it would mean that interpretive activities were not aimed at anything at all, and this is an absurdity too great to accept. If an interpreter were asked why he was interpreting something to a visitor at a park and the interpreter was to respond that he was doing it for no reason at all, that he was simply doing it and he had no objective in doing it; if he had no aim to make the visitor learn something, understand something, enjoy the park, or any other thing, we could not make sense out of his response. Such a response would be counted as an absurdity. Although people may disagree as to what the goal of interpretation is, it is impossible to accept the idea that it has none whatsoever. By a rather straightforward reductio ad absurdum it can be seen that EI must have some goal or other.

There are other reasons for this conclusion. One is that the existence of a goal gives point or purpose to a range of activities which we cannot tell, by simple observation, why they are performed. That is to say, some activity A—for example, telling a person a fact about the presence of venomous reptiles in a certain area—may be either an act of interpretation or some other act, and which act it is depends (in part) upon the reason for which A was performed. It may be
construed as an interpretive act when it was done (it can be assumed here) for the purpose of informing the person of the features of the park, but the same act A would not be an act of interpretation if the person who did it was, say, a parent who did so in order to prevent the children from straying too far away.

The point of the above example is that, in general, one way to distinguish interpretive activities from others is in terms of the point for which the activity is engaged in. There is no specific activity or set of activities which constitute interpretation— one may presumably do almost anything with the aim of interpreting. The point is that it is the aim of those activities which helps to define interpretation, and enables us to pick out interpretive acts from other acts, even where behavioral descriptions of the act are the same.

An illustration may help to make the point clear. Consider the concept of 'hunt.' One may accidentally fall, but one may not accidentally hunt, for to say that someone is hunting is to say that she is doing something or other with the point of capturing game or finding whatever it is that she is hunting for. Thus if someone goes hunting for snipe s/he will do certain things that are aimed at securing snipe. Hunting is like interpretation in that it is an intentional activity and that it is impossible to accidentally hunt.

One should note also that the same activities performed in the hunting of snipe may be the same activities performed for some other

4Almost anything. As I will show in the following chapter, there seem to be restrictions on the range of activities that can be considered as interpretive. Thus, not just anything can be interpretation, even if it is aimed at an interpretive goal. On the other hand, there are very many activities that could be performed as interpretation.
purpose. One way that a person may hunt for snipe is to stroll leisurely down a forest path. One may also do that in order to relax.

The difference between snipe hunting and a relaxing stroll is not in the strolling, but in the point of strolling. When it is done for the purpose of catching snipe, it is ipso facto snipe hunting. When it is done for the purpose of relaxing, then it is a relaxing walk.¹

The above argument rules out the idea of accidental interpretation as suggested by Tilden.⁶ It rules out as interpretation "... the act of the Indian which gave life to a picture that was otherwise beautiful but inert because it was unrelated to anything within the experience of the beholder." In this case an Indian was observed to sing at Canyon de Chelly, and he would have had to sing with the purpose of providing interpretation in order for it to count as a possible case of interpretation. But there is no evidence that he did so, so we cannot say that it was interpretation, accidental (as Tilden wants to say) or otherwise.

Such a restriction only makes good sense in a theory of interpretation, and it would have to be stipulated if it were not already part of the concept. This is because a conceptualization is desired that will enable us to distinguish between learning and other interpretive outcome situations that just happened to occur and those which resulted from some activity engaged in for the purpose of bringing them off. After all, people learn a great many things at parks and other outdoor preserves that have nothing at all to do directly with interpretation, and it would be impossible to take all these events into account. The

¹One could do both at the same time, of course.
⁶Tilden, op. cit., p. 97. See also Appendix B.
present effort is mainly directed at interpretation, not learning. What we need to know is what one must do to get an interpretive goal realized, in terms of an activity done by a naturalist, and thus the interest is in intentional activities only. 7

Since interpretation is an intentional activity aimed at something or other, it at least meets the first of the criteria required for something to be a case of education— it is a "trying to do" something. What it is that someone is trying to do when they are doing interpretation will have to be seen below.

Interpretation and interpretation. The concept of 'interpretation' is ambiguous in a way that must be addressed. There are specific interpretive encounters, or episodes of interpretation, as well as patterns of such encounters or episodes. An example of the former is the interpretation that a park naturalist might give to a group of visitors of, say, an unusual geological formation. This sort of thing can be

7The discussion of intent in interpretation suggests that it is necessary to at least touch on a related consideration, viz., that the term 'interpret' is subject to intent/success ambiguity. (The following discussion is based on Scheffler, op. cit., pp. 42ff and 60ff.)

To say, "The naturalist interpreted something to the visitor," is not necessarily to say that the visitor "got anything" out of it. Indeed, it may be necessary to find out if the visitor learned anything as a result of the naturalist's efforts. In that context 'interpretation' implies only that the naturalist tried. Like many "tryings" it may have failed.

On the other hand, there is a sense in which 'interpret' is used to imply that not only was there an effort on the part of the naturalist, but the effort succeeded. In this sense, to say, "The naturalist interpreted the forest to the visitors," is to say that the visitors actually learned some things about the forest, some of those things that the naturalist intended that they learn.

I will not be concerned with the success sense of 'interpret' in this work. Indeed, insofar as this distinction is pertinent to the discussion to follow, I will be concerned with the intent sense of the term. Nevertheless, much of what could be said about the intent sense also applies to the success sense as well.
designated interpretation, that is, "small-i" interpretation. There is also what might be called the interpretation of the park, or interpretation in general, which would be made up of all the specific acts or episodes of interpretation which occur in the park (etc.) or, in general, the sum of all interpretive encounters or episodes. This kind of interpretation can be designated Interpretation, that is, "capital-i" interpretation. In this sense of 'interpretation,' Interpretation would be all the instances of interpretation that went on in the park (etc.), including the use of interpretive media like signs, displays, diorama, and so on.

The distinction is similar (but just similar) to that between 'teaching' and 'education,' with 'education' analogous to 'Interpretation' since 'education' can be construed as made up of teaching (and perhaps other) encounters, so that a person's education is the total of those encounters. Likewise, 'interpretation' is analogous to 'teaching' in that it is an encounter that lasts a short period, has a specific subject matter, and is made up of what a teacher/interpreter does with and to his students/visitors. This is not, of course, to imply that teaching and interpretation, or education and Interpretation, are the same things; they definitely are not.

My reason for pointing this out is that, in light of what is to follow, many statements of goals of RI are ambiguous with respect to whether they are referring to specific episodes of interpretation, or if they are referring to the collected pattern of interpretive encounters, i.e., Interpretation. For purposes of the following discussions I will, in general, assume that the goals stated for RI are goals of
interpretation, and if they are purportedly goals for interpretation they can be properly applied to interpretation.

Types of Purpose. There is an ambiguity in the term 'purpose' (or 'goal' or 'aim') that must also be addressed, namely that it can refer to either the end product of an activity or it can refer to a desired way of carrying out that activity. These two types of purpose may be called "product goals" and "process goals," respectively. Thus when Tilden writes that the aim of interpretation is provocation it may be that he has in mind that an interpretive presentation ought to be provocative, in the sense that it ought to be carried out in a certain fashion by using certain language devices, for example), and when he says that the purpose of interpretation is "enrichment" what he seems to be talking about is the product of "provocative" interpretation, that is, a product goal.

This chapter is concerned with "product goals," the states that are aimed at when one engages in interpretation. The process of interpretation will be dealt with in the following chapter.

Having limited the universe of discourse to "product goals," it is necessary to distinguish two sorts of purposes within that realm. One sort will be called the constitutive goals or purposes (= \( \text{CP} \)), purposes that are logically part of a concept, and their counterpart, non-constitutive goals or purposes (= \( \text{non-CP} \)), goals which are not logically or necessarily part of the concept.

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9 Tilden, op. cit., pp. 9, 32.
Constitutive Goals Explained: Consider the concept of 'punishment.' Whatever else might be said about the logic of the concept, to punish is to do something to someone else for the purpose of correcting that person's behavior. That is the point of inflicting the pain on another. If the purpose was not to correct behavior we would say that the infliction of pain was not a case of punishment, but rather something else, perhaps torture. The absence of that aim is sufficient to withhold the application of 'punishment' from the case in question. That is what is meant by the term 'punishment': it is done to correct behavior.

A CP is, then, a purpose without which we cannot have a case of some concept (of which the purpose is constitutive of). This does not mean, of course, having some particular purpose, say the correction of behavior, is sufficient for the concept to apply. This is obvious, because there are many possible ways to go about correcting someone's behavior, and not all of them are cases of punishment. One might, for example, show the person that the behavior is detrimental to his well-being, and the demonstration might be enough to bring about the desired change in behavior. That is not punishment, since it does not meet some other (here unspecified) necessary condition(s).

Another example of a CP will be given and, hopefully, it will be more relevant to the theme of this dissertation than the case of 'punishment.' The example is that of the verb 'to teach.'

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10 Except, perhaps, in the case of retributive punishment.
11 Of course some cases of torture may be punishment, and vice versa, depending on the particular usage being dealt with. However, I think the clearest cases of torture (or perhaps sadistic torture) are those in which there is no aim of correcting behavior, and in all cases of punishment there is at least that aim of correcting behavior.
I take it that, regardless of any other reason for engaging in the activity of teaching, one purpose that would be common to all cases is that of getting the student to learn something, particularly that which the teacher is trying to teach him. If we were teaching that copperhead snakes are poisonous, then the constitutive goal is that he will learn that they are poisonous. If we were not trying to get him to learn that the snake is poisonous, regardless of what we might do, we are not teaching him at all. If we are 'teaching' we must be trying to get the student to learn something or other, or all the teaching-like activities (say, lecture, examination, encouragement, demonstration, etc.) do not constitute teaching the student. We would have to call it something else, perhaps babysitting, perhaps play-acting, perhaps schooling, but it would not be teaching unless there is at least an intent to get someone to learn something in particular.

Of course, given the intent of getting someone to learn, it does not follow that it is a case of teaching, for there are other ways of getting someone to learn, and not all the ways are called teaching. If they do not meet certain restrictions on manner they are not cases of teaching. Curiously, punishment may be a way to get someone to learn, but it is not teaching. The purpose alone doesn't make for teaching.

[12] Recall the discussion on the intent sense above, as well as the discussion on education and teaching in Chapter IV.

[13] See, for example, Green, op. cit., chapter 1, where he lists a number of teaching activities.

[14] Hereinafter, 'learn' will be taken to mean 'come to believe, understand, acquire an attitude, skill, disposition, value, or taste,' that is, the concept includes Kerr's minimum criterion of education. See page 68 above.

It should be noted that there are many other purposes given for teaching someone something. A reason for teaching someone that the copperhead snake is poisonous might be so that the person will not accidentally handle one and thus avoid being bitten. This would be a non-constitutive (product) purpose, because that teaching encounter would still be a teaching encounter even if there was some other non-CP, or even if there was none at all (as in the case where one teaches a student something simply so that he will learn it). But the encounter would not be a teaching encounter unless it was at least aimed at getting the student to learn something.\(^{16}\)

A CP is a purpose without which we cannot have a case of the concept; it is thus a necessary condition of that concept. On the other hand, a (particular) non-CP is not a necessary condition of the concept. This distinction, applied to 'teach,' would give the insight that other purposes that people hold for teaching are not logically

\(^{16}\)This discussion makes explicit something that I take is implicit in Soltis (op. cit., pp. 37f) where he discusses "subject matter as vehicle." In that section he discusses the idea that subject matter, the \(X\) in "\(T\) teaches \(X\)," so that \(Y\)," is perhaps best construed as a vehicle to \(Y\). As he puts it, "In this way we use the concept of subject matter (\(X\)) as a 'vehicle' to get us to some goal (\(Y\)) and this usage is very natural to the idea of teaching as an 'intentional activity.'"

Well, not quite, for I think that Scheffler's point about intentional activity (which Soltis cites) has to do with the constitutive goal of teaching, namely learning, but that is not the main issue here. It is rather that whatever the \(Y\), the non-CP of the teaching encounter, there logically must be the CP of teaching, that is, learning. The point of the teaching (as a non-CP) is to get to the \(Y\), but one must try to get \(S\) to learn \(X\), in order to get to \(Y\), and that learning is the CP of 'teach.'

As Soltis rightly points out, we may wonder if we attained \(X\), or in my terms, the CP, and also wonder if we have attained the \(Y\) (the non-CP) as well. The point is that they are two different goals, and that successful teaching ('teach' in the success sense) has to do with the CP or \(X\), not with the attainment of \(Y\).
necessary to the concept 'teach,' and thus have some other relationship to the concept. If someone asserts that the student's well-being is the purpose of teaching; him, then what he is suggesting is that it ought to be a non-CP of teaching, and we would of course want a justification for that. Likewise for other non-CP's, such as "happy children," "the great society," "a reduced birth rate," and so on. One does not need to justify the CP of learning.

It should be noted that process goals can also be distinguished into constitutive and non-constitutive process goals. In Scheffler's "constraints on manner" I think it is Scheffler's point that something will not be a case of teaching if at some point there is not an appeal to the student's demand for and assessment of reasons. Unless certain methodological requirements are met we cannot have a case of teaching. This is different from a process goal of "humanistic" or "democratic" teaching where it is not held that without meeting certain humanistic or democratic procedural goals there would not be a case of teaching. Instead, within the logical bounds of teaching one ought also do other things besides the logically required Schefflerian constraints on method. We could still have a case of teaching without the attainment of humanistic process goals, but it would not be a case of teaching at all if the constraints on method are not attained. It could be said, then, that some process goals are constitutive in the sense that we cannot have a case of the concept if they are not attained; some process goals are not constitutive, so that it may be held unfortunate that they

17: Scheffler, op. cit., pp. 57-3.
are not attained, but it would still be a case of teaching. Undemo-
cratic teaching is still teaching, but where there is no appeal to
reason, there is no teaching.

There is something odd about talking about constitutive process
goals at all, since the concept of goal logically implies the possi-
bility of non-attainment. A constitutive process goal would then be
self-contradictory in the sense that it cannot be a goal in the process
of teaching; since it would not be a case of teaching if the goal was
not met. It could only be a goal in the sense that if we want something
to be a case of teaching then we should strive to make sure that the
logically necessary conditions are met, including the procedural ones.

It is now time to apply this distinction to the product goals of
interpretation, and ascertain the constitutive product goal(s).

A Proliferation of Purpose

It has been shown above that EI must be a purposeful activity—an
activity directed at some goal or other. A survey of the literature
will indicate that there are a great many purposes given for EI, indeed,
there are almost as many different purposes for interpretation as there
are writers on the subject. Some of the proposed purposes will be
presented below, and they will be grouped as single or multiple, de-
pending upon whether the author thinks that there is one purpose or
many. I will also present some of Tilden's views for completeness.

Single. Perry, writing in the Manual of Outdoor Interpretation,
says that, ". . . enjoyment is the ultimate goal of management as well
as of interpretation in the National Park System."18 In Interpretin-

18Chomon, op. cit., p. 19
the Environment Del Chamberlain writes, "Sky interpretation is the art and process of coupling direct observation with skilled communication for the purpose of informing people about the sky."

Yarar, in the same volume, suggests that the basic purpose is the transmission of information. Paul Brooks, also from the Manual of Outdoor Interpretation contends that, "One of the most important objectives of outdoor interpretation is to develop in all of us what might be called an 'outdoor conscience.'" Along the same line Brown writes, "... the basic objective of environmental interpretation--motivating the public to take environmental reform action--forces it to transcend the resource and its visitors."

Multiple authors claim that the goals of interpretation are "sensitivity, awareness, understanding, enthusiasm, and commitment." Sharpe states that the goals are (among others) to "assist the public to understand, appreciate, and enjoy all forms of nature which are preserved in these sanctuaries." Bradley says that the objective, among others, is "to assist the visitor in developing a keener understanding and enjoyment of the area visited." Douglas Scott holds that in cave interpretation the purpose is "to give the visitor a pleasant

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19 Sharpe, op. cit., p. 421.
20 Ibid., p. 421.
21 Brown, op. cit., p. 11.
22 Brown, op. cit., p. 77.
23 Sharpe, op. cit., p. 499.
24 Ibid., p. 6.
25 Ibid., p. 64.
and satisfying experience, develop appreciation for cave values, and arouse his interest in cave conservation." Finally, Brown (again) thinks that, "Environmental Interpretation . . . conveys environmental knowledge, stimulates discourse on environmental problems, and results in environmental reform."27

Tilden says the purposes of interpretation are: "enrichment of the human mind and spirit,"28 "the chief aim is provocation,"29 "a cardinal purpose is to present a whole . . ."30 and, "The purpose of Interpretation is to stimulate the hearer or reader toward a desire to widen his horizon of interests and knowledge, and to gain an understanding of the greater truths that lie behind any statements of fact."31

It should be obvious from these examples that there are a great many purposes proposed for interpretation, and these examples are but a small selection from a great number. One thing is clearly needed: that some sense be made of this proliferation of goals.

The Constitutive Purpose of Interpretation

In this section I will present three arguments to establish that the CF of interpretation is not one thing, but rather two things, learning and enjoyment. That is, if the purpose32 of an encounter is

26Chommon, op. cit., p. 87.
27Brown, op. cit., p. 77.
28Tilden, op. cit., p. 8.
29Ibid., p. 9.
30Ibid., p. 40.
31Ibid., p. 33.
32Here, purpose can mean the reason that the naturalist had for initiating the encounter, something he set out to do before the encounter happened, or something he came to hold after the encounter began. In the latter case, a visitor may just walk up to a naturalist and ask a question. Then the naturalist endeavors to respond in a certain sort of way (interpretive) the encounter takes on an Interpretive purpose. See "Information Duty," in Sharpe, op. cit., pp. 123-140, especially p. 127.
not both learning and enjoyment\textsuperscript{33} that encounter cannot be an interpretive encounter.

\textbf{First Argument: Origins.} It will be recalled from Chapter II, "An Historical Perspective," that there were a number of factors influencing the initiation of the nature-guiding-interpretation enterprise. One was that it was thought that the chances for successful preservation of the parks and nature preserves would be increased if the numbers of visitors were increased from a paltry few to substantial numbers. The reasoning was that if a significant number of people used the parks and became supporters of them, then there would be a constituency built up. On the other hand, if nearly no one used the parks, there would be no constituency for the needed preservation from commercial exploitation. Given that there was a concern in increasing the visitorship it was believed that one thing that had to be done was to make visiting a park a pleasant and enjoyable experience. Enjoyment is, by and large, the reason that people first went to the parks and the reason why they continue to do so.

Interpretation had to be carried out with visitor enjoyment uppermost in mind. This occurred in at least two ways. First, the actual interpretation was directed along the lines of being an enjoyable experience in itself. That is, it was the idea that each visitor ought to find the interpretation of something was an enjoyable experience—the attendance at an interpretive presentation would be a source of pleasure. Recall here the idea expressed by numerous participants at

\textsuperscript{33}The concept of 'enjoyment' is taken to be a basic, or primitive, concept, and thus not in need of analysis or definition.
the early National Parks Conferences: the parks should be "pleasuring places for the American people." Second, making interpretation enjoyable was one thing, but there was also some reason to think that it was believed that for the visitor to enjoy himself a certain modification of outlook had to occur. That is, as also seen in Chapter II, many of the visitors to the parks were from urban, relatively well-to-do areas in the East and these people were "mentally distant" from the park environment. They simply had little idea how to deal with the actual environment they were in, an alien one for most of the visitors, and interpretation was seen as a way to prepare visitors to get along in this environment. In other words, it had to perform an educative function so that the more important function of enjoyment could be attained. In this view interpretation was seen as both an enjoyable experience in its own right and a vehicle to other enjoyment in the park.

There were other forces at work as well. One was an educational belief that held, roughly, that education should be fun and enjoyable. This was partly a reaction to a rather rigid schooling situation at the time, one that has more or less diminished now, but was quite significant at the time. It is, I think, for this reason that Tilden frequently disparages the presentation of so-called "dry facts"—he is coming from a position that held that mere data were uninteresting and hence not proper for the interpreter to deal with.

In spite of an entertainment thrust in the early days of interpretation, there was also an educational or learning orientation.

[34] Not necessarily in the sense described above in Chapter III.
Recall that the early visitors were typically from a well-placed, educated background. They were used to an edifying lecture now and then (there was the Chautauqua for the less well-to-do), so lectures were hardly out of place. They were well educated, and so were their friends. When they returned home they naturally wanted to tell their acquaintances what they had seen at Yosemite and Yellowstone. It is within this context that the transmission of information, and not just entertainment is seen as important. But simply, the visitor really wanted to know about the various things at the park visited, how the natural processes formed the park area, and the odd and unusual features that he might not notice without the help of a naturalist.

Finally, in the early days some camp operators were concerned about the "tall tales" told by the horse wranglers and stage drivers. They found these stories a problem because they did not want sophisticated clientele misled and they personally wanted the visitor to get the truth about the area, not the local folly. Enos Mills, for example, took delight in sharing knowledge with the visitors at Long's Peak.

It wasn't the mere recitation of facts that the early naturalists were interested in, but with putting these facts in an interesting and meaningful way, which connects again with the idea of enjoyment. It can be seen that initially, there was a dualism in the purpose of interpretation.

The Second Argument: Current Circumstances. This argument parallels the first in that it posits similar considerations. People go to parks and reservations primarily for enjoyment and relaxation. If we assume that everything that takes place in the parks ought to be
directed to that end, then interpretation would have to be concerned with the visitor's pleasure and enjoyment. The interpretive presentation would then be made an enjoyable experience.

On the other hand, visitors frequently look for some small bits of information. They want to know something of the significance of the natural features, the historical features, and for much the same reason that the early visitors did, namely so that they could relate this information to friends and acquaintances, or simply from curiosity. This means that interpretation must take cognizance of learning or information as well as entertainment.

Many of the people visiting parks are also relatively naive with respect to the natural environment of the parks and reserves, being unused to dealing intellectually with the out-of-doors because of living in an urban environment, or having an urban dominated education. Hence the interpreter is called upon to "re-educate" the visitor to the new surroundings, teaching the visitor how to properly perceive the natural environment, allaying fears, warning of dangers, and the like. Thus there is a learning component as a desired purpose of interpretation.

It should be noted that neither of these arguments constitutes a strict proof that visitor enjoyment and learning are necessarily constitutive purposes of interpretation. At best they show how it might be that nature guides, naturalists, and interpreters would hold that enjoyment and learning are desired (worthwhile) purposes. The arguments make it reasonable that one would hold those purposes, but do not show that one must have learning and enjoyment as purposes in order to have a case
of interpretation. The following arguments are stronger in that respect.

The Third Argument: Argument from Minimum Success. The basic consideration in this argument is, "What would anyone who engaged in interpretation be willing to say about minimum success criteria?" "What would be the least thing(s) necessary in order for an interpreter to claim that s/he has successfully interpreted something to a visitor?" These questions are not concerned with the maximum desired result, but the very minimum acceptable before the activity of interpretation becomes pointless.

Take an imaginary interpreter and a specific case. Suppose that he maintains that the goal of his interpretive efforts is visitor appreciation of nature. He wants the visitors, the audiences of his interpretive presentations, to move toward appreciation of nature, and he believes that what he does in each of his presentations has some meaningful connection to the attainment of that end. But what must be asked is would he consider any given episode of interpretation a success if no one in the audience came to appreciate nature as a result of his efforts? Would he say that his interpretation had been a complete failure simply because no one had come to appreciate nature? I do not think that he would say that his interpretation was a complete failure simply because no one in the audience had come to appreciate.

Note that if he would say that his efforts had not been successful because no one had come to appreciate nature he would be holding that as a constitutive purpose, sine qua non of his interpretive efforts. Note also that he is rather ambitious, and expects a lot from one presentation.
nature. Failure to attain that goal is not sufficient to say that the interpretation was a failure.

On the other hand, if no one in the audience learned36 anything of what he tried to inform them, he presumably would say that the interpretation was a failure. Suppose that his topic was the venomous reptiles of the area and that the presentation included facts about them, identification, what they feel like, folklore, and the real and imagined dangers associated with them. If, after the presentation, no one was able to give evidence of having learned anything of what the interpreter presented, no one could identify a poisonous snake, etc., and the interpreter actually did make a pedagogical effort37 to get the audience to come to believe that the venomous snake normally eats this and that, and so on, then I take it that the interpreter would say that his interpretive efforts were not successful. Without some minimal learning on the part of the audience, the interpretive presentation is counted a failure. This does not mean, of course, that the audience has to learn most of what the interpreter intended them to learn, but only that some minimum learning is logically required. If the audience learns absolutely nothing of what the interpreter intends, nothing of the information that he tries to transmit, then I think the interpreter would say that, although a perfectly acceptable effort was made, it was not a successful effort.

36 'Learn' is taken to mean 'come to believe, understand, or acquire an attitude, skill, disposition, value, or taste.'

37 'i.e., a legitimate teaching effort. He tried to get them to learn something, and was not simply acting in a play or something of that sort.'
In general, we would want to say that a minimum amount of learning is necessary for any interpretive presentation to count as a successful one. (That is not to say, however, that a minimum amount of learning is sufficient for a successful interpretive encounter. Whether that is true will have to be seen below.)

To return to the imaginary case. It has been shown that without some learning on the part of the visitor or audience, we cannot have a case of successful interpretation. Failure to meet a general goal, such as "appreciation of nature," would not be a sign of failure of interpretation, while failure to have a minimal amount of learning would be. 38

But what of enjoyment? Suppose that the audience didn't achieve appreciation of nature, nor did anyone in the audience even enjoy the presentation. They were all totally bored by the whole thing, with not the least flicker of pleasure in any one of them, not a hint of a smile, with everything the interpreter did or said registering a complete loss to them. They didn't know what he was talking about, didn't care, and found not a bit of amusement in it. If this were the case, then we would say that the absence of any element of enjoyment on the part of the visitors is sufficient to say that the interpretive encounter was not successful.

Thus, in general, the failure to meet any general goal, like appreciation of nature, understanding the venomous reptiles of the area, and the like, would not be sufficient to admit failure, but the complete

38 Hence, a general goal (like "appreciation of nature") is not a necessary condition of EI.
absence of enjoyment on the part of the visitor would be sufficient. And this shows that enjoyment is a necessary condition for success in the interpretive effort.

Learning and enjoyment must be brought together to see how they are conjointly related to interpretation. Suppose that our imaginary interpreter does succeed in getting at least a few members of the audience to learn that which he wants them to learn—let's say that they can identify a few of the reptiles, or something like that—yet no one in the audience enjoyed the experience in the least, even those who learned a few things. If that were the case, we would want to say that the interpretive encounter was not successful, because learning alone is not enough. It is necessary that the visitor learn and enjoy, not simply learn.

Likewise for the case where the presentation was very enjoyable, yet no one learned what the interpreter wanted them to learn. They all had a very good time, but no one could show evidence of learning anything about the local poisonous snakes as a result of what the interpreter did. If, as a matter of fact, they did enjoy themselves, but learned nothing, then I think we would want to withdraw any claim that the interpretive encounter had been successful. As shown above, without some minimal learning, regardless of what else happens, we would not have a case of successful interpretation. Regardless of any other goal of interpretation, whether it be awareness, enthusiasm, sensitivity, 39

39 It does not make any difference if the audience learned that the interpreter was an entertaining person, unless that was what he wanted them to learn. But if that was (all) that he wanted them to learn, then he was not, I take it, interpreting the local reptiles to them.
an outdoor conscience, or what have you, whether these are achieved or not, if we do not have at least some learning there cannot be a case of successful interpretation. It may, of course, be a successful encounter of another type. It could perhaps be counted as a successful entertainment encounter (e.g., singing of campfire songs) but not a successful interpretive encounter. Likewise, if there was learning but no enjoyment, it may perhaps be counted as a successful educational encounter, but not an interpretive one.

Look at it both ways. Suppose that as a result of the interpretive encounter the park visitor becomes committed to environmental reform, but has neither learned nor enjoyed as a result of the things that the interpreter did. Then we would still want to say that the interpretation was not successful. The encounter may be successful as something else, but not as interpretation.

Similarly, if the visitor did both learn and enjoy as a consequence of the encounter, we would be willing to say that the encounter was a successful interpretive encounter, even though minimally so. We would say that some learning and some enjoyment would suffice for a successful encounter, and since a minimum amount of success is still success, then it would not matter if some other goal, like commitment (or what would be called some non-constitutive product purpose) was not also realized.

Indeed, if upon examining the circumstances of the encounter we find that other logically necessary conditions are met (for example,

*I will assume that it is possible for someone to become committed to something without learning also taking place; it probably isn't possible.*
certain constraints on method, similar to those associated with 'teach' (see p. 70) and it is found that both some learning and some enjoyment resulted in the visitor as a consequence of the encounter, the encounter could be properly termed interpretive. That is to say, no further purposes, constitutive or otherwise, need be attained. These two are, then, conjointly sufficient for a case of interpretation.\footnote{Ignoring, still, other process conditions that may be logically necessary for the concept of 'interpretation' to apply.}

I have reached a point where it can be seen that that attainment of learning and enjoyment are severally necessary, and conjointly sufficient, for counting an interpretive encounter successful, and that, in general, the same is not true for the other (product) goals or purposes of interpretation. We would be willing to hold out the possibility of attributing success to an interpretive encounter even if none of the other goals were attained, provided that it is possible that learning and enjoyment were attained. If learning and enjoyment were not attained, the case would not admit of success, even if some other goal(s) were attained, and if there was at least some learning and enjoyment on the part of the visitors, it would count as a successful encounter. It is on this basis that I conclude that learning and enjoyment (in some sense or other) are the constitutive purposes of interpretation, and that unless the effort is directed toward attaining at least (and both) learning and enjoyment,\footnote{More than a cursory examination of 'enjoyment' would be beyond the scope of this paper, but some examination may be helpful here. (Cont'd)} the effort cannot be an effort at interpretation.
With this last argument I take it as established that the CP's of SI are both learning and enjoyment. I will now turn to the relationship between the CP's and the non-CP's of interpretation.

**Constitutive and non-Constitutive Purposes Related**

It may be argued that the alleged distinction between the CP's and non-CP's of interpretation is perhaps not as strong as I have made it out to be, because of an obvious overlap between those things that I was taking as examples of non-CP's, such as "an outdoor conscience" or "appreciation of nature," and 'learn,' where 'learn' is taken to mean "come to believe or understand, or acquire an attitude, skill, disposition, value, or taste." The problem is that what was argued as being a non-CP seems to turn out to be a case of learning as defined. To "come to appreciate nature" is to learn, and thus the distinction would collapse, and the supposed non-CP's of interpretation would then

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"Enjoyment" here should be taken as a completely subjective concept in the sense that (a) the sorts of experiences that individuals count as enjoyment may differ widely, and (b) that what a person says he enjoys is taken as prima facie true. People enjoy, after all, a great variety of rather peculiar things, and if someone says that he enjoys x, no matter how much we don't enjoy x, we can take his claim at face value, and accept that he does, in fact, enjoy x (provided, that other "broadly dispositional" characteristics are consistent with what he says, for example, he is not grimacing when he says that he enjoys it.) And, of course, vice versa: if he says that he doesn't enjoy it, then we are prima facie justified in accepting that he doesn't, in fact, enjoy it.

"Enjoyment" ranges over and overlaps a number of other concepts, such as 'fun,' 'entertainment,' 'pleasure,' 'awe,' 'wonder,' 'fright,' and so on. The exact relationship between 'enjoyment' and these and other concepts would be, no doubt, informative, but cannot be presented here.

Learning, of course, may count as enjoyment for some people. In that case, the constitutive product purposes would coincide. On the other hand, the attainment of learning is not necessarily enjoyable, nor is the state of having learned something necessarily enjoyable (in any sense.) It is the interpretive problem to bring the two together.
become, instead, constitutive purposes.

I think it is true that when the non-CP's of interpretation are reached via the activities of interpretation learning has indeed taken place. But it does not follow that the distinction would collapse. It is maintained on the basis that the constitutive purpose is (in addition to enjoyment) that some learning take place, and there is a difference between constitutive and non-constitutive purposes in that there is a significant difference in terms of generality. That is, it is one thing to say that some learning must be the goal of interpretation, and to say that "the appreciation of nature" is the goal. The point is that "some learning" or other is required for an enterprise to be interpretation, and that is quite different from saying that "the appreciation of nature" is required. If it could be maintained as true, it would mean that "the appreciation of nature" was a CP of interpretation, an untenable idea from my point of view.

It should be recalled that Kerr's account of 'education' stated that at least the formation of some belief, attitude, skill, etc., must be aimed at for something to count as education. This is essentially what I have argued is true for interpretation. I take it, however, that merely trying to form a belief, attitude, etc., is not sufficient for something to count as 'education,' but rather that one must be trying to form a collection of beliefs, attitudes, skills, etc. To provide a medical education is to try to form a relevant group of

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43See, for example, pp. 111ff.
44See p. 66 above.
45Provided that other logically required conditions are met.
beliefs, and to provide any education at all is to try to develop "the whole person." Likewise for Interpretation: the non-CP's of Interpretation are things that are general, have to do with "the whole person," and are tied together in some way. This would have to do with the formation of some beliefs, etc., and thus the minimum requirement for something to count as education, Interpretation, or interpretation. There must be a group of beliefs, attitudes, skills, etc., aimed at, depending upon the particular non-CP held for education or Interpretation.

EE and EI Related

It is now to be determined, in terms of product goals or purposes, the way that EE and EI are related. In doing this the various senses of EE distinguished above will be utilized. I will consider EI as education about the environment, as education in (simpliciter) the environment, as education with, and as education for the environment (i.e., environmental advocacy).

EE/about. I think it is generally taken that, for the most part, interpretation has as its subject matter some environment or other (particularly the natural environment), and that it is an attempt to bring someone (the visitor) to at least learn something about it. In as much as interpretation deals with natural or historical features of a park or whatever, it is about the environment. It has as a CP

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the formation of some belief, understanding, or skill about the environment, at least on occasion.\textsuperscript{47}

I take it without argument that a person who is interested in forming beliefs about the environment considers these things worthwhile or valuable in the sense that the state of mind that results in the formation of those beliefs, etc., is taken to be worthwhile. Thus interpretation meets the "worthwhileness criterion."

In short, then, interpretation is \textit{EE} about the environment in terms of product goals when it is an effort to form beliefs, etc., about the environment, where those beliefs are taken to be worthwhile.

\textit{EE/in(s)}. When interpretation is taken to be an intentional activity aimed at the formation of some belief, attitude, skill, disposition, value, understanding, or taste, that is taken to be worthwhile, and the formation attempt takes place in the environment (say, the out-of-doors, in the natural environment), then it is a case of \textit{EE/in(s)}. It should be noted that such formation of belief, etc., is not necessarily about or for the environment, or even with the environment. All that is required is that the interpretation be out-of-doors, but there is no requirement for a particular subject matter or pedagogical approach (\textit{EE/with}).\textsuperscript{48}

\textsuperscript{47}But not attitude, disposition, value, or taste, since these would be properly matters of education \textit{for} the environment. Education \textit{about} does not range over anything other than matters of fact, while matters of attitude, disposition, etc., are concerned with being for or against something. To develop an attitude is not to develop an attitude \textit{about}, but an attitude toward, and so on, the environment.

\textsuperscript{48}Except that it be interpretive in process. What that might mean will be discussed in the following chapter.
Since EI often uses the environment (nature) in a process to achieve an aim of belief, understanding, value, skill, etc., and the state of mind is taken to be worthwhile, it can be said that EI is also EE/with. There is a shared product purpose between EI and EE, i.e., some learning or other, taken to be worthwhile.

EE/for. I believe that, along with EE/about, EE/for is a most interesting category for interpretation, so this discussion will be somewhat longer than the others. In order for something to be a case of EE/for the environment it must be a case where there is at least an effort to form beliefs, attitudes, understandings, values, etc., that are taken to be for, or on behalf of, the environment, where 'environment' again means "the natural environment," and those beliefs are taken to be worthwhile.

Thus when someone proposes that a goal of interpretation is an "environmental conscience" then I take it that he is proposing that the enterprise be directed toward the formation of beliefs, etc., that will somehow enhance the environmental quality or preserve the environment in its present or natural state.

It is obvious that someone who would propose such a goal takes it to be worthwhile, and thus EI/for would meet the worthwhileness test. It is intentional, and has to do with belief, etc., and so it at least qualifies as a candidate for EE/for the environment in that there are shared goals.

But although at least some cases of interpretation qualify as EE/for the environment there are two other conditions that must be also met: the formation of belief, etc., on the basis of reasons, and
the willingness and voluntariness conditions. Thus, although interpretation and EE/for have the same goals, one cannot say that interpretation is educational—i.e., since it has yet to be determined if it meets those remaining criteria. That follows in the next chapter, and all that can be said here is that interpretation might be EE/for (and, for that matter, EE/about, etc.)

One other comment must be made here: although interpretation might be for the environment it does not (necessarily) follow that it is about the environment (or vice versa), for the interpretation might be aimed at "saving" the environment but the various beliefs, etc., that are being formed are not about the environment to be saved, but might be about something else instead. For example, one might try to educate so as to save the environment of Lake Superior, and carry it out in an interpretive fashion, but the belief formed is that "pristine environments ought to be preserved." This would be "about" Lake Superior only in a very general sense, and yet it would be aimed at saving the lake, and thus clearly for the environment (of Lake Superior). (Note that this EE/for is probably not in the environment, or even with it.)

EE and EI Distinguished

It was argued above that enjoyment was a CP of interpretation, along with learning. It is in the CP of enjoyment that rests a logical difference between interpretation and EE, regardless of whatever else could be said to be true of both of them. In the goal of enjoyment lies the difference because we do not find as a constitutive purpose of education (or, for that matter, teaching or schooling) enjoyment on the part of
the student. It is possible to have a case of education if certain conditions are met, but those conditions do not include an aim that the student enjoy it, and thus there could be a case of education when the student in no way enjoyed it, and even if he found it very unenjoyable. The point in education is not whether the student found it horrible or pleasurable, but whether he learned something under certain other conditions. We could not have a case of interpretation that was not aimed at enjoyment, yet we can have a case of education which is not aimed at enjoyment.

If enjoyment plays any role at all in education it is as a pedagogical tool, a way to get the student to learn something better. Thus it might turn out that if students enjoy themselves they learn better than those who do not. Educators may then want to take pains to introduce enjoyment into the practice of teaching. But that would not make education interpretation, since the relation of enjoyment to education would be contingent, not necessary. It is a logical requirement in interpretation, not a pedagogical one. Even if there was no pedagogical payoff in interpretation enjoyment would still be an aim. Indeed, if it turned out that enjoyment interfered with learning it would be a state of affairs that would have to be accepted, since we would not want to sacrifice enjoyment for learning enhancement in interpretation. Logically, we could not.

**Summary**

Certain points must be noted before the purposes of interpretation can be fruitfully considered. First, interpretation has some goal,
i.e., it is an intentional activity aimed at achieving some purpose. This means that there is no such thing as accidental interpretation, and that the first of the criteria for something to be a case of education (environmental or otherwise) is met: it is at least a "trying to do something."

The second preliminary point that must be noted is that talk about the goals of EI is ambiguous with respect to whether it has to do with Interpretation or interpretation. The term 'interpretation' sometimes means the specific interpretive encounters or episodes, and it is also sometimes means the collected encounters or episodes. My concern is limited to the encounters or episodes, i.e., interpretation.

Finally, and perhaps most importantly, process goals and product goals must be distinguished. My concern here is with product goals. Within that realm, I am interested in those goals that define, or are necessary to, interpretation. These are the "constitutive product purposes of" interpretation.

Many writers propose goals for interpretation, among them, "enjoyment," "information," "understanding," "appreciation," "an outdoor conscience," and so on. The problem is to ascertain which are the constitutive ones of interpretation.

One argument shows that in the beginnings of interpretation (as a pedagogical activity) it was reasonable that both learning (coming to believe, understand, value, etc.) and enjoyment were the purposes of interpretation. A second, and similar, argument shows that it is now reasonable that both learning and enjoyment are the CP's of interpretation.
A stronger argument, though, is that interpreters would not count their activity a success if at least some learning and at least some enjoyment were not the result. Without at least some of both on the part of the visitor it cannot be a case of successful interpretation, while failure to attain some other goal (e.g., an outdoor conscience) would not count as total failure. It is concluded, then, that both learning and enjoyment constitute the purpose of IT. Without those as the aim, the activity isn't interpretation.

Although the other goals (appreciation of nature) may involve learning, none of them actually define interpretation. The CP of learning is common to any of the non-CP's.

IT and WE are related in terms of a shared purpose: learning. To that extent, then, IT is WE. When IT uses the environment in an effort to attain learning which is taken to be worthwhile, it is WE/with; when it tries to inculcate attitudes for the environment, it is WE/for, and so on.

Yet WE and IT are not the same thing, for IT is distinguished from WE in that IT has as a constitutive purpose, enjoyment, while WE does not. Enjoyment can only be contingently associated with WE as a pedagogical tool, not as a defining purpose. The opposite is true of IT.
CHAPTER VI

THE PRACTICE OF INTERPRETATION

In this chapter I will examine the way that interpretation is said to be practiced—the way it is carried out—in contrast to the previous chapter. The focus is on the concept of interpretation taken as an activity divorced, as completely as possible, from considerations of any product goals.

Although it is not too difficult to separate the activity of interpretation from its product purposes, it is necessary to point out that it is difficult indeed to separate, in thought, non-constitutive process goals of interpretation from the constitutive process goals of interpretation. Non-constitutive process goals are those goals that tell us how interpretation ought to be carried out, and include goals which would, inter alia, make the activity of interpretation more likely to be successful, goals which prescribe the way interpretation should be carried out. Examples are the goals of keeping the presentation short enough so that the audience will not lose interest, and avoiding subject matter that would be offensive to the audience.

But these sorts of things must be distinguished from constitutive process conditions, conditions necessary for something to be counted as interpretation. These conditions distinguish the activity of

\footnote{That is, separate the two for purposes of theoretical study and scrutiny. In actual practice one would certainly not want to separate them, regardless of what can be done in theory.}
interpretation from other sorts of activities aimed at the same constitutive product goals.  

I will focus on the constitutive process purposes of interpretation, and only briefly touch on the non-constitutive process purposes. I will discuss interpretation as though it were always easy to make the distinction between the way that the activity ought to be carried out (the non-CP process purposes) and the way that it must be carried out if it is to be a case of interpretation.

To illustrate the problem, consider a recent document concerned with the interpretive planning process which listed "rationale" for the proposed interpretive programs. In one instance it was said that, "This service [movies] permits the visitor to sit down, which increases receptivity and extends the attention span." I take it that this would be a non-constitutive process goal, aimed at increasing the probability of success, a recommended way of carrying out interpretation.

On the other hand, "Demonstrations... give the public an opportunity for first-hand experiences in [farm practice] techniques." It is not at all clear that the business of "first-hand experiences" is not more than simply a way to carry out interpretation effectively. That is, it seems to be suggested by some writers that "first hand" experiences are logically part of the enterprise of interpreting, and

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2 See above, Ch. V, pp. 100ff.
3 Veverka, John A., coordinator. "Malabar Farm: An Interpretive Planning Process" Jill R. Willis and John A. Veverka, eds. (School of Natural Resources, the Ohio State University, Columbus, Ohio, 1977), pp. 79ff.
that failure to utilize such experiences would count against the case being a case of interpretation. "First-hand experiences" seems to be a constitutive process purpose for interpretation. But I have my doubts about this, so the problem is set aside. This is an example of the kind of problem alluded to above (of separating the two types of process goals), and so is the following one.

In "New Frontiers" the author states that interpretation has as a fundamental characteristic a motivational approach, rather than a strictly factual one. Cherem seems to think that this is a necessary condition; something cannot be a case of interpretation if it is not motivational in nature. But notice that it would be very easy to construe 'motivational in nature' as a recommended way of doing interpretation, that is, if the activity includes devices that have a motivational effect the activity is likely to be successful.

The point of these examples is that there are a number of statements which could be taken as either statements of logically necessary

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4Cherem, op. cit., p. 2.
5It is not clear how Cherem and other writers take the term 'motivational.' In "New Frontiers" the expressions used are, "MOTIVATIONAL in nature, rather than strictly factual" (p. 2), and "interpreters MOTIVATE visitors rather than smothering interest with strictly factual material," (p. 7) (emphasis in original).

It is my suspicion that what is meant is that the interpreter is to use figurative language, and other devices to, as he puts it, make the subject matter "come to life" (p. 7). To put it differently, the interpretive approach is to deal in the affective, rather than the cognitive, domain. He talks about effecting "maximum psychic pleasure" of an audience (p. 4), which again suggest the affective domain.

This means two things: (a) it is not a matter of "getting action" (although that is clearly another interpretation), and (b) it is a way of carrying out interpretation. And it seems that Cherem sees it as a necessary way of carrying it out; it won't be interpretation if it isn't motivational.
conditions for something to be an instance of interpretation or as statements that recommend the way interpretation should be practiced. The difference is the same as the difference in telling one how to go about fishing and telling someone what it means to fish, or is like the difference between telling someone that the way to win at chess is to do such-and-so, but the way to play the game of chess is to do this—and that.\textsuperscript{6}

I am going to suppose that it is easy to distinguish between them, and not be overly concerned about the possibility of error. Thus, my strategy is to lay out as clearly as possible, via four "modes" of interpretation, what it means to say that something is a case of interpretation. When this is done, I will return to the criteria of education, to see in what way the concept of interpretation is related to the concept of environmental education. Specifically, I will try to see if interpretation meets the criteria (iii) and (iv). In this way it will be seen if interpretation is educational in the sense defined in Chapter IV.\textsuperscript{7}

\textsuperscript{6}The distinction is made between constitutive and summary rules. Summary rules are rules that, let us say, based on past experiences, give us good advice. Constitutive rules, on the other hand, are rules that define the activity. For example, one summary rule in chess might be, "always open with the Queen's Gambit." One constitutive rule is, "the knight always moves on the diagonal." To violate the constitutive rule is to not play chess. To violate a summary rule is to ignore advice (and possibly lose the game).

\textsuperscript{7}There is one further matter to be addressed before the issue at hand is taken up, the matter of interpretive media. Interpretive media are those devices, instruments, and means by which an interpretive message is presented to the public (Sharpe, \textit{op. cit.}). They would include such things as indoor A-V presentations, campfire presentations, tours, trails, museum and wayside exhibits, etc. (Manual of Outdoor Interpretation, p. 23) In this study I will limit my concern to live presentations, on the assumption that whatever is true of this is also true for the most part about the other media. 
It is important to bear in mind throughout the following discussion that not everything an interpreter or naturalist does is interpretive. As an employee holding the position of Interpreter (or Naturalist or Ranger) s/he will do a wide variety of things, some of which have nothing much to do with interpretation or education, or even his/her job (e.g., kissing his/her spouse good-by), some of which may be interpretive but not educational, some educational but not interpretive, some both educational and interpretive, and some neither (e.g., pure entertainment activities.) The problem here is to see to what extent that which is interpretive is also educational.

The Modes of Interpretation

In this part I will investigate what I take to be some interesting and significant "modes" of interpretation. A "mode" is an activity that can be construed as doing interpretation, and is yet in some way different from another activity that can also be construed as doing interpretation. The modes that I will study are (a) 'translation', (b) 'story telling,' (c) 'explanation' and (d) interpretation "by" the environment. 8,9

Although there seems to be overlaps between the modes, I will discuss them as though they were substantially different. I will treat 'translation' (the translation of technical scientific data into terms and ideas understandable by the typical visitor) as different from

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8 This is included, despite the dubious status in light of Chapter III above, because it is important to deal with.
9 There may well be other modes of interpretation. These are ones that seem to me to be the most interesting. Other possible modes of
'story telling' (telling the story of an historic site) and both as different from simply explaining something to a visitor.

These various activities are called "modes" of interpretation because in doing any one of them one would be counted as doing interpretation. There is a way of doing 'translation' so that it becomes interpretive, and so on. In addition, any given interpretive presentation may well involve all four "modes." Consequently, there is considerable opportunity for confusion. It is my hope, though, that by treating the activities as separate modes more clarity will be afforded, which will facilitate the study of the conceptual relationship of interpretation to environmental education. It is assumed that if one can get clear on the different modes of interpretation, one will, ipso facto, get clearer on the matter of what 'interpretation' means.

Interpretation as Explanation I will begin by looking at some examples where it is pretty clear that the writer is taking 'explaining' as a kind of interpretation. Risk says, "Most interpretation takes advantage only of sight and hearing. Visitors stand looking at a particular view or object while the interpreter explains it. Show and tell (emphasis supplied). He goes on to discuss ways to make interpretation more than just explanation, although he doesn't put it in those terms. The point is, though, that it is quite natural to speak of interpreting as "explaining something to someone."

9(cont'd) interpretation might include living interpretation, revelation, orientation, and drawing attention to something.
10Sharpe, op. cit., p. 149.
Another example of the rather natural way we can interchange the concepts 'explain' and 'interpret' is provided by Sharpe. He writes, "Surf fishing demonstrations are another activity to consider [for marine interpretation]. The equipment needed and the techniques used are easily interpreted and are appreciated by visitors, especially those who are not having much luck fishing." Here it is easy to substitute 'explained' for 'interpreted,' and it can be done without any loss of meaning. Thus, in some contexts 'explain' and 'interpret' mean the same thing. It will be seen, though, that 'explain' is a borderline case of the concept 'interpretation.' In any case, what the interpreter would do in 'interpreting' surf fishing techniques and equipment is explain how surf fishing is done, explain how to use the reel, how to cast, and so on. All of this can be done in a very straight-forward manner, and would be characterized, I take it, as a plain and ordinary sort of thing.

Brown, in Islands of Hope, also takes interpreting to be the explaining of something to someone: "Here is story-line interpretation in its classic guise: explaining a natural or historical event for the enlightenment and enhanced enjoyment of the visiting public." In that

\[11\] Ibid., p. 453.

\[12\] When we can substitute one concept for another, without a loss of meaning, that means that the concepts mean the same thing, at least in that context.

\[13\] I argue that there is a difference between "story telling" and "explaining" as modes of interpretation. This mixing of the concepts here indicates, as I have already mentioned, that there is an overlap between the several modes. However, in their central meaning, "story-line" or "story telling," and "explanation" are rather different sorts of things.

\[14\] Brown, op. cit., p. 87.
context Brown was commenting on the way the naturalist would describe
the bats (at Carlsbad Caverns National Park), where and how they live
in the cave, why they fly out, where they go, and when they come back.
He notes that, "As today practiced, story-line interpretation is over­
whelmingly taxonomic and passive-descriptive -- names of things, narra­
tives of no-context events. . . . And many interpreters function as
walking textbooks whose microscopic erudition and canned lectures
intimidate and turn off visitors." 15 16

Apparently Brown does not favor story-line interpretation. 17
Indeed, a question might be, "Is what he describes as interpretation
actually a case of interpretation at all?" Or, to put it another way,
are these examples of interpretation qua explanation, interpretive?
The answer is that they are at the borderline of interpretation. Ex­
planations per se are not necessarily interpretations. They may, of
course, be educational, and yet not interpretive. There must be some­
thing in addition to make an explanation interpretive.

But just what is it that makes a difference? One answer follows
a fairly standard sort of response: "Outdoor interpretation can be
defined as that branch of human communication that has to do with ex­
plaining things out-of-doors in meaningful terms to man. . . ." 18 The
idea is that it is not simply an explanation, but a meaningful one.

15 Ibid., p. 84.
16 Also c.f. to Ch. II, above, p. 28.
17 It should be noted that his reasons for not favoring it are not the
reasons that I will be discussing. In brief, though, he is an activist,
and thinks that interpretation ought to play a significant role in reform.
18 Shomon, op. cit., p. 15.
But what does it mean for an explanation to be meaningful? There are at least two ways that something can be said to be meaningful, (a) understood and satisfying is one sense, and (b) something is meaningful when it is significant in some way, important. I will have occasion to return to the idea, and the ambiguity, of "making meaningful." The point here is that not just the giving of any explanation by an interpreter is typically construed as constituting interpretation. Only certain explanations count as interpretation, those that are meaningful, in some sense or other. To the extent that an explanation is meaningless to a particular visitor, it is not interpretive for him, and it is the interpreter's job, as interpreter, to do that which will make the explanation a meaningful one for the visitor.

What is going on in this mode of interpretation is that the interpreter is trying to make the visitor understand something via meaningful explanation. He is trying to satisfy a curiosity on the part of the visitor, to get him to understand that surf fishing is done a certain way, and that is reached on the basis of the explanation. It is for this reason—that it is aimed at understanding on the basis of reasons, and attempts to accomplish this via explanation—that makes this sort of interpretation pedagogical.

Soltis, op. cit., Chapter 4, provides an account of the concept of 'explanation' which is pertinent to this discussion. He discusses the idea of a satisfying explanation, and argues that if an explanation is relevant (the type of explanation that the explainee wants), adequate (there are no logical or psychological gaps that the explainee cannot fill), and consistent (with the person's set of beliefs), then that explanation will be satisfying for that particular person.

If 'meaningful' means satisfying in the sense that Soltis has in mind, then the necessary conditions for an explanation to be satisfying or meaningful are given, and in addition, Soltis thinks that the
Interpretation as Translation  The second mode of interpretation is translation. The central idea is that the interpreter takes the technical and specialized language and explanations of the specialist—the historian, the biologist, etc.—and "translates" them for the visitor. The job of the interpreter qua translator is to put the technical language into terms that the typical visitor can comprehend.

This is clearly what Sharpe has in mind when he writes, "These persons [seasonal employees] translate human history and scientific knowledge of the earth sciences into easily understood terms." Paul Risk says about the same thing in a later chapter of that work:

Interpretation, whether through talks or other means,

is almost exactly what the word states. It is the translation of the technical and often complex language of the environment into nontechnical form, with no loss in accuracy...

19(cont'd) conditions of relevant, adequate, and consistent are conjointly sufficient for a satisfying explanation.

Given this analysis of "meaningful" some things for interpreters to be concerned with are: Is the explanation the sort of explanation (chronological, definitional, teleological, causal, etc.) that the visitor wants? Does the visitor have the ability to fill in the logical and psychological gaps in the explanation? Does the explanation fit with his existing beliefs?

Probably the interpreter's main concern will be in the second condition, adequacy. Here he would be concerned that, among other things, the terms in the explanation were familiar to the visitor, that there were no gaps in the explanation (for example, if a visitor asks why the trees are dead and receives the explanation that there were too many beetles this year, that explanation would have a gap for the visitor if he did not make the connection between the number of beetles, supply the proper type of beetle, and see that those beetles kill trees). To make an explanation meaningful, then, would involve "gap filling" on the part of the interpreter—interpreting, then, would be "gap filling."

20Sharpe, op. cit., p. 7.
21Ibid., p. 159.
There are some obvious similarities between this and the previous mode of interpretation. For one thing, either may be involved with explaining something, but in this mode there is a greater focus on making the technical explanation something that is understandable to the typical visitor. In another sense, though, the interpreter as translator would explain the explanations given by experts in the relevant areas. In either case there is a concern to bridge the gap between what experts in the field know and what the visitor knows.

This notion of interpreter as translator shades into another, related one, as is exemplified by this passage,

The dictionary defines interpret as "to set forth the meaning of; explain or elucidate." There is no more enjoyable nor exciting occupation than setting forth the meaning of nature, especially when so much of the meaning is yet to be discovered.22

In this passage there seems to be a shift from the idea of translation as "setting forth the meaning of technical language" into translation as showing how nature is meaningful, that is, important to mankind in general and each visitor in particular. The idea of nature as meaningful (significant, important) is frequently expressed in the literature of interpretation, and one example worth note is also found in the Manual of Outdoor Interpretation, in a chapter titled, "Outdoor Interpretation—meaning and general principles":

The meanings behind all this interpretive effort are as vast as nature itself. What are the

22Shomon, op. cit., the Foreward by Charles H. Callison, Executive Vice President, National Audubon Society, p. 5. (emphasis in original)
meanings of nature to a man who has devoted all of
his years striving to learn of the life histories,
habits and identification of one family of insects. . .?

and,

What could the meaning of nature be to a city child. . .?

and, finally,

. . . the meaning could become unexpectedly important. .  . 23

These examples show that there is a significant shift in the
"translation" metaphor, where in one place the interpreter is construed
as one who makes the technical language of the expert understandable to
the layman, and in another the interpreter makes something meaningful
in the sense of significant or important. This difference between the
two senses of 'meaningful' will be returned to later in this chapter;
it is sufficient here to just note that the activity of interpretation
is taken to be centrally related to the idea of "making something
meaningful," which was found in the previous mode as well. One problem
will be to examine the idea of "making something meaningful" in the
conclusion.

Interpretation as Telling a Story The third mode of interpretation to
be discussed is that of interpretation as telling a story, or, as Brown
puts it, 'story-line' interpretation.24

The idea of interpretation as the telling of a story is common in
the interpretive literature. Tilden informs us that he "... had the
pleasure of telling the story of [Fort] Frederica to certain groups,"25

23 Ibid., p. 16.
24Brown, op. cit., Chapter IV.
25Tilden, op. cit., p. 7. I assume in this example Tilden is speaking
of his activity as interpretation.
and Jepson states that, "... a visitor center staffed by qualified VIS personnel may be provided to tell the forest story." Sharpe says,

In Acadia National Park the interpreter takes the group to a rocky ledge above the surf zone, asks them to sit down, and for 20 minutes unfolds the story of the intertidal zone.

Finally, Wallin comments that, in urban interpretation, "... the interpreter leads a walk along a city sidewalk and uses the things found along the edge of the street to tell the story of the city."

There is a story to be told, and it is the interpreter's job to tell it. His main role is to tell the story in an interesting way. Note that the locution is, typically, 'the story,' with the suggestion that there is just one story, 'the story.' Certainly not all authors express it both ways. Tilden, for example, advises the interpreter to "tell a story," and such a locution leaves open the question whether there is one story or many. Similarly, Risk says, "An archaeological site has a particular story which must be told. . . .", but then goes on to say that, "The inventory should have suggested numerous themes or central threads which could be skillfully woven through your walk. . . ."

This example suggests that there are actually many possible stories for an interpreter to tell, and that it is his job to figure

26 Shomon, op. cit., p. 29.
27 Sharpe, op. cit., p. 460.
28 Ibid., p. 340.
29 The example is from a chapter entitled, "The Story's the Thing", and occurs on p. 29. I think it is safe to say that Tilden does see it as being one story, when all things are considered. He does waver, though.
30 See the Appendix C for a discussion of this problem.
31 Sharpe, op. cit., p. 144.
out various stories.

A definitive part of story-line interpretation is that an interpreter should not just name things, or state facts about this feature or that feature in an unrelated way. Rather, as Tilden puts it, "...tell a story rather than recite an inventory,"\(^{32}\) and, the facts should be reasoned into a whole picture.\(^{33}\) What the interpreter is to do is pattern all the facts that he has available to him in order to make these facts interesting; it is assumed that "isolated" facts are, for the most part, not of much interest to the casual visitor. This is what, I suspect, prompts Tilden to say, "But you sometimes note an impatience on the part of the specialist that the public does not show sufficient interest in his assemblage of information as such."\(^{34}\) Tilden clearly sees the interpreter as someone who will take all the information that the scientist or historian accumulates\(^{35}\) and pattern it, make it meaningful. Once the idea of a meaningful story manifests itself there is an easy move to making the story—the pattern—meaningful, interesting, moving. And so it is said that,

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\(^{32}\)Tilden, p. 29. op. cit.

\(^{33}\)Tilden, pp. 7, 41, for example.

\(^{34}\)Ibid., p. 23.

\(^{35}\)I cannot resist the temptation to observe that Tilden and other writers as well (I certainly wouldn't want to single him out on this matter) seem to have a rather strange idea of what the specialist does. Some interpreters seem to think that the scientist and historian just collect facts, and unrelated ones at that. I suppose they sometimes do, but I suspect that for the most part the historian and the scientist have a more or less definite idea of how these facts fit together. One kind of nature study approach that Tilden and others seem to be reacting to is the approach where the naturalist just led a group of people around and named the flora and fauna. Who could fault Tilden, et al., on that count?
The life blood of satisfying interpretation flows from the proper and ingenious use of exactly those devices of language that take the hearer or reader beyond the observed fact to, or at least toward, a certification of spirit. 36

Another author, discussing interpretive writing, advises us to "... involve your readers through emotional impact," and, "Use personal and live verbs to convey warmth and action whenever possible; use active rather than passive words." 37 Once again note the two different approaches to interpretation as making something meaningful: one is to make something understandable, and another is to make it significant or important (what else can "certification of the spirit" mean?). And once again I must ask the readers' indulgence in postponing a discussion of the idea of 'meaningful', and the significance of this observation. 38

Interpretation "by" the Environment Turning to the last mode of interpretation that I want to discuss, it should be pointed out that it is doubtful that this is a genuine mode of interpretation, since it is not clear that the interpreter is doing anything at all, except perhaps making it possible that the visitor experience certain sorts of things. It is one thing for the interpreter to explain, to translate, or to tell stories, but it is quite another thing for the interpreter to bring the visitor to a certain location where it is thought or believed that the visitor will experience or have certain feelings. But since mention of this "method" occurs in the literature, I will take a brief

36Ibid., p. 30.
37Sharpe, op. cit., p. 243. That statements relation to interpretation as story-telling is unclear.
38For this discussion see pp. 143ff.
look at it. It will turn out to be especially interesting, though, when I turn to the conclusion and attempt to ascertain if interpretation is education, since there is at least some *prima facie* doubt that this mode will meet the criterion of wittingness and voluntariness, and the criterion of belief, etc., formation on the basis of good reasons. That will have to be discussed below (pp. 149ff), however. Now I turn to some examples.

One of the clearest examples of this idea is found in Brown. He writes,

> At this level [a direct, experiential level] environmental interpretation acts as a time machine. It helps people get out of their cultural and temporal skins so that they can experience the natural world as their ancestors (genetically, their ancestral selves) once did. Immersion in a non-insulated natural world is necessary if technological man is to understand himself as a natural man. Unless pain is felt, it is an abstraction. Unless a human being feels the boundaries of nature, he forgets that they are there. 39

He goes on to say,

> Bringing men back to direct confrontation with nature is to demonstrate that there is no escape from nature. Granted general understanding of this basic fact, environmental conservation will cease being a matter of voluntary good deeds and will instead be an involuntary natural act, like breathing. 40

Another example comes from Tilden, and although Tilden is not as explicit as Brown is, the point remains the same.

> So, I think where the interpreter is dealing with aesthetic values he will do well to restrict himself to two offices: first, to create the best possible vantage points from which beauty may be seen and comprehend; and second, to do all that may be

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40 Ibid., p. 96.
discreetly done to establish a mood, or sympathetic atmosphere.\(^4\)

He then writes that "... I would have no oral or written interpretation that did more than deftly create a feeling. ..."\(^2\) and "... the effect is to send the visitor away with something more than a fact, and we may call that something more inspiration."\(^3\)

In this mode the interpreter creates an appropriate mood, not by anything he says, but by bringing the visitor into a situation where the visitor will experience certain desired feelings, which will lead the visitor to behave in a certain way, or leave with something called 'inspiration.' An example of this might be an interpreter leading the visitors on a conducted tour to an impressive vista so that they will become duly awestruck by the grandeur of the scene. The visitor has certain desired (by the interpreter) feelings as the result of that experience, and "... environmental conservation will cease being a matter of voluntary good deeds. ..."\(^4\) In this case it is not so much what the interpreter says that brings about the feelings or inspiration, but rather the effect of the environment on the visitor that brings about the feeling, or mood, and so forth. The interpreter does, of course, play a role in all of this, and the role seems to be that of "orchestrator," he "sets things up," makes them all interplay, so that the feelings will occur as planned. It is in this sense that it is interpretation, since it is the interpreter who is instrumental in

\(^1\) Tilden, op. cit., p. 85.
\(^2\) Ibid.
\(^3\) Ibid., p. 87.
\(^4\) Brown, op. cit., p. 95.
their occurrence by manipulating the situation so that something will happen.

In a sense, the interpreter makes the environment meaningful—i.e., he "interprets" it for the visitor—so that he sets up a situation so that the visitor will have certain feelings or experiences that will lead to a behavior pattern that is sought after by the interpreter. As Brown states, "Unless a human being feels the boundaries of nature, he forgets that they are there."45 I take it that this means that the "boundaries of nature" become meaningful in the sense of "significant." The visitor becomes impressed, as it were, by the boundaries of nature, he comes to recognize them, and then (it is believed) he will act in an appropriate manner.

As in the other modes examined the dual question still pertains: to what extent is this interpretive, and to what extent is it educational? It may be readily granted that this is interpretive, and granted without supporting argument. Yet the problem, as far as this work is concerned, is whether it is educational in the restricted sense developed in Chapter IV, not so much whether it is interpretive. As previously noted, something which is interpretive may not be counted as educational, depending on the extent to which the criteria for education are adequately met.

**Environmental Interpretation as Education**

**A Fundamental Difference.** A common element found in each of the modes examined above is that in each there is an attempt to make the subject

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45 Brown, op. cit., p. 95.
matter meaningful and/or interesting, in some sense of those terms. The requirement that an attempt be made to make the subject matter meaningful and/or interesting serves as a constraint on manner and serves to distinguish interpretation from other pedagogical activities or enterprises. In short, it is what makes interpretation what it is; it is the constitutive process goal in interpretation.

In a typical teaching^46 situation it is not necessary that the teacher make any attempt to have the subject matter interesting or meaningful. We would not withhold the assertion that the person was teaching if the activities that were engaged in to get the student to learn never involved an attempt to make the material interesting or meaningful. For example, a person may attempt to get a child to learn the multiplication tables and do so in the most meaningless and boring manner imaginable. Yet we still could say that the person was teaching the child the tables. Or a teacher may explain an obscure point of ancient Greek history, and it is not required that the point be meaningful (i.e., significant). All that would be required is that the teacher do something to get the student to learn the point, and the student may learn the point yet never be inclined to see its significance, meaningfulness, and so on. Teaching (pedantic) can go on where there is no attempt to elicit student interest or meaningfulness; the absence is not sufficient to withhold the assertion that teaching (drilling, lecturing, explaining, etc.) was going on. Indeed, we say

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^46 'Teach' is being used here in a loose and popular sense; an attempt to get someone to learn something, as opposed to a strict and philosophical sense, which follows Scheffler (op. cit., p. 57f), and which I have used from time to time in this study.
that children are successfully taught many things that are made neither meaningful nor interesting.

On the other hand if an interpreter never did anything to make the subject matter meaningful, we would withhold the assertion that a case of interpretation had occurred. The interpreter must do something to make the subject matter meaningful is a necessary condition for something to be a case of interpretation.

There is a difficulty with this business which I should briefly discuss here. The problem is this: we might say that "an appeal to reason" is necessary to the concept of 'teach' (as in Scheffler, loc. cit.), and perhaps also of 'education' (see above, pp. 69ff), and we may also say that "making the subject matter meaningful" is constitutive of 'interpretation' (as I am arguing in this chapter), that these things are logically necessary conditions. But we may appeal to the students' demand for and understanding of what constitutes good reasons or an adequate explanation, say by giving him a chance to challenge or by encouraging critical examination. But if he fails to apply his sense of what is a good explanation or what constitutes good reasons, it doesn't seem that we should withdraw the teaching claim. E.g., if the student is "mentally asleep", or just doesn't care, it would seem that the teacher has done all that we could reasonably expect of him. Likewise, the interpreter may do certain things to make the subject matter meaningful or interesting--use "action" words, nice metaphors, simplified explanations--and yet the visitor "misses it all." We would not, I take it, withdraw the assertion that the person did interpret the subject matter, simply because the visitor failed to see it as meaningful or interesting, even if he did learn what the interpreter desired that he learn, and even enjoyed it all. In one sense we have a clear case of successful interpretation, in that (a) the visitor did learn and enjoy, and (b) it (the interpretation) was done in an appropriate way, yet on a second level there was a sort of failure, for in one way he fails to "connect."

One way to deal with this would be to withdraw the teaching and interpreting claims if the constraint isn't successfully met. For example, in the case of 'teach', if a belief was formed, but not on the basis of reasons that are good reasons for the student, then he was not taught that belief by the teacher. Or, for the case of 'interpret', if the visitor came to believe that P, and also enjoyed himself while that happened, and yet the interpretive encounter was neither interesting nor meaningful (in one or another of those senses mentioned above) then the belief and enjoyment were not the results of the interpretive encounter. But this might be too much to accept.
The concept of 'meaningful' is quite in need of elucidation, but to provide an adequate analysis of it would unduly extend this already overlong study, so I will limit myself to a few comments.

As noted already, 'meaningful' seems to have at least two major senses pertinent to interpretation: 'understandable' and 'significant.' Thus a meaningful explanation could be one which is an understandable one, one that is comprehensible to the person to which it is given. A meaningful explanation could also be one which is important to the person, for example, where it satisfies a long-standing curiosity about something ("Now I finally understand how that works."); and so forth.

In either case the attempt at interpretation may be frustrated or enhanced, depending upon what the visitor brings to the encounter in terms of education, interests, attitudes, and so on. An interpretive presentation on honey bees may be meaningless to a visitor if he doesn't understand the terminology or logic of the explanation (because it is too sophisticated or too unsophisticated), or it may be meaningless even though he understands the explanation if he finds it not significant (he already knows all there is to know about bees) or he just doesn't give a damn about them. The point is that the meaningfulness of an encounter is a function of both what the interpreter does and the characteristics of the visitor.

The notion of 'meaningfulness' has some connexions to interestingness, awe, wonder, curiosity, fear, and so on. An interesting presentation would be significant (in a sense) and thus meaningful; a presentation that inspired awe would be meaningful, as would one which a little "scary."
Meaningfulness can be seen, then, as attainable in a number of different ways; to present all those ways would obviously require a great deal of investigation into the logic of 'meaningful' and its connexion to very many other concepts. Such a study would be long and complex, riddled with difficulties associated with the analysis of psychological concepts.

The business of making a subject matter meaningful is tied to the constitutive product goals in this way: If a subject matter is meaningful (in either of the ways mentioned) it is also enjoyable (in some sense or other) at least in contrast to a purely pedantic way of dealing with the subject matter. The mere giving of information is not likely to result in enjoyment, yet if that information were cast into a meaningful form it would be more enjoyable (interesting, etc.) than otherwise. A meaningful presentation is enjoyable when seen in contrast to the purely pedantic presentation of the same material. The mere naming of the trees and so forth (especially with Latin nomenclature) is not meaningful for the typical visitor (yet may be for some with a certain kind of schooling background) and therefore is not enjoyable. When put into a meaningful form (by judicious use of interpretive devices or techniques) the same encounter becomes enjoyable as contrasted to the mere naming, which is typically not enjoyable at all (even though perhaps educational).

If there is some knowledge (belief, understanding, value, etc.) to be transmitted to the visitor one of several ways to perform the activity so that it accomplishes both of the constitutive product purposes (learning and enjoyment) is to weave the information into an
interesting story (as opposed to merely listing or asserting the information (the non-interpretive way). This way is less meaningful and hence less interesting and hence less enjoyable than the former (the interpretive) way. In short, then, the meaningful-enjoyment relationship must be seen in contrast to other ways of presenting the subject matter.

It should be noted that attainment of the constitutive product purpose of enjoyment does not require that the visitor roll on the ground in spasms of laughter, or that be in an ecstatic trance, only, I would say, that it be more enjoyable than it may have otherwise been. The effort to make the encounter enjoyable can surely go beyond this by the use of other techniques geared to pulling it off. The only difficulty arises in those cases where the techniques used infringe upon the criteria of education. In those cases the encounter may be no longer educational (even though fully interpretive).

One final comment on this matter: The reader should not infer that I am advocating or depreciating interpretation, education, or pedantry. All I aim doing is pointing out differences. For some purposes and in some places each of those have their rightful place. Indeed, I would argue that sometimes an interpreter should be pedantic (but then he wouldn't be doing interpretation) or be more concerned with education. As noted above, not everything an interpreter does is interpretation, and sometimes he must be more concerned with things other than interpretation, depending upon the circumstances.
El and Education Related Here I will apply the criteria of education previously developed to the modes of interpretation in order to see if interpretation can be a case of education. I will look at these modes (which seem the most interesting or fruitful) to see if they are such that (a) the visitor comes to hold or adopt a belief, attitude, skill, disposition, value, understanding, or taste on the basis of reasons that support that belief, etc., and (b), that the visitor is a witting and voluntary partner in the enterprise. To the extent that these conditions are not met, to the extent that what the interpreter actually does while he is presumably engaging in interpretation does not meet these criteria, then to that extent we must say that he is not engaged in education.

Interpretation qua Explanation When an interpreter gives an explanation, it (the giving of an explanation of something) can be viewed as interpretive, especially in view of the comments given above. This idea is reflected in the definition of 'interpretation' given by The Countryside Recreation Glossary:

The process of developing a visitor's interest in and enjoyment and understanding of, an area, or part of an area, by describing and explaining its characteristics and their interrelationships.

The question is, though, whether this mode of interpretation meets the two criteria, not whether it is interpretation.

48 These criteria were developed above in Chapter IV, and are summarized on p. 74.
49 Taken from Sharpe, op. cit., p. 4.
The answer seems to be pretty clearly "yes," in respect to both criteria. It would seem to meet the first criterion, that of belief (etc.) formation on the basis of reasons, in that the visitor may accept the explanation, or reject it, on the basis of whether or not he sees it as a good explanation. Thus it must satisfy his sense of what constitutes a good explanation. This follows Scheffler's idea of teaching and it was seen that if the activity was of that sort, then it would meet that criterion. 50 We can say that if he doesn't see the explanation as plausible or reasonable he can choose to reject it or ignore it. It is not incumbent upon him to accept it, and there certainly is no reason to think that he must accept the explanation if he thinks it is incorrect for some reason or other. I take it that the interpreter aims at the formation of belief on the basis of what the visitor sees as a reasonable explanation.

In addition, even if the explanation seems unusual in some sense, say, if the visitor "finds it hard to believe," as many people do when they are confronted with an explanation that seems to be inconsistent with what they believed previously--and yet elects to accept the explanation on the basis of the expertise of the naturalist or interpreter--this too would be a case of belief formation on the basis of good reasons. The acceptance is based on a presumed expertise of the interpreter, and this presumed expertise is some reason to think that the explanation is a good one, a correct one, and worthy of acceptance. The belief that is accepted on the basis of the authority of the interpreter is thus based on what the visitor takes to be a good

50See above, pp.70f, or Scheffler, op. cit., p. 57-8.
reason, and does not violate the criterion. 51

We see, then, that the first of the two criteria here being con-
sidered is not obviously violated in this mode of interpretation. 52

Turning to the second of the two criteria, the requirement that
the visitor be a willing and voluntary partner in the enterprise, I
think that we can be reasonably sure that the visitor is a willing
partner since, for the most part, this is exactly what the visitor
expects the interpreter to do: to explain things to him, to tell him

51 What is being said here is that the naturalist or interpreter is
taken to be a relevant authority, someone who may be presumed to tell
the truth, to be correct, to be accurate, and so forth.

This may be objected to on the grounds that such an inference is
fallacious, the fallacy known as argumentum ad verecundiam. It is
true that the inference is based on an appeal to authority, but in
this case, the authority—the naturalist—is taken to be relevant
authority. Not every appeal to authority is wrong (although they may
all be invalid, since they are inductive arguments). As Salmon puts
it (Wesley C. Salmon, Logic (Englewood Cliffs, N.J.: Prentice Hall,
Inc. 1963, p. 63), "It would be a sophomoric mistake to suppose that
every appeal to authority is illegitimate... if we were to reject
every appeal to authority we would have to maintain... that no one
is ever justified in accepting the judgment of a medical expert con-
cerning an illness... one would have to become a medical expert
himself, and would have to face the impossible task of doing so with-
out relying on the results of other investigators." Later Salmon gives
the form of the argument as follows (p. 64):

\[
\begin{align*}
X \text{ is a reliable authority concerning } P \\
X \text{ asserts } P \\
\hline
\text{thus,} \\
\hline
P
\end{align*}
\]

What I am claiming is that the naturalist is a reliable authority
on certain matters, and so when the visitor accepts the explanation on
the basis that "the naturalist said so" he has some support for his
belief or understanding. This may not be as strong as one might wish,
but it certainly is as strong as found in most pedagogical situations.

52 There may be ways of doing this mode which are suspect—for exam-
ple, putting an explanation in emotive terms which will win the heart
but not the mind of the visitor. This difficulty is better addressed
in the discussion of "story-line" interpretation below, pp. 155ff.
about what is in the environment, and to explain what is going on in the natural world that the visitor is in at the park or historical site.

In addition, typically the visitor is also a voluntary partner, in either of two senses: voluntary in the sense that he doesn't have to be there with the naturalist and is free to leave at any time, to break-off the interpretive (and we can now say, educative) encounter whenever he wishes, he can simply walk away.\footnote{Which is in contrast to school students, who are frequently in school simply because of the legal requirement that s/he attend school, and who are not free to go as they please. Likewise for a military recruit, who is constrained to remain in the "educative" encounter of basic training. The idea is that in the interpretive encounter there is typically no general societal pressure or compulsion, and certainly none enforced by law, as there is in some other encounters (e.g., schooling), which are ipso facto not educative encounters as defined by the analysis in Chapter III.} \footnote{Not every interpretive encounter is voluntary in the sense that the visitor is free to walk away. There are cases where the visitor is free to refrain from entering into the encounter--he doesn't have to go on a guided tour, let's say--but once he enters into the encounter and starts on the tour he is constrained to continue. For example, on a guided cave tour the visitor cannot simply walk away if things are no longer to his liking. As Scott says (Shomon, op. cit., p. 63). "In the typical tour situation the visitor is quite literally a captive audience." Few people are willing to turn back into the black gloom and try to find their way out, and there is a real danger of injury. Other cases suggest themselves: a tour in a wilderness area, aboard watercraft, or a guided night walk. Of course the constraint is not a legal one, but rather a physical and/or psychological one. The point is, though, that we cannot simply say that "interpretation serves a voluntary, non-captive audience" without specifying in what sense it is voluntary and non-captive.} 53, 54

But there is another sense of 'voluntary,' the sense in which the visitor is free to refuse to learn, or to believe, or to accept that which the interpreter or naturalist attempts to get him to learn,
believe, or accept. The visitor does not have to learn it, thus possessing a kind of intellectual freedom—not only does the visitor know that the naturalist is going to try to get him to learn something, but the visitor is free to reject it, to decline to learn it. It is this intellectual freedom of wittingness and voluntariness that partly characterises education as analyzed in Chapter IV and it is manifest in this mode of interpretation, as far as it has been presented, at any rate. But as I shall show in the discussion of story-line interpretation there are ways of effecting explanatory interpretation so that voluntariness and wittingness are not preserved. To satisfy, if inadequately, the reader's curiosity as to what I could be talking about, consider this case: Suppose that the interpreter actually intends that the visitor acquire a belief or attitude which the visitor might wish that the interpreter would not meddle with, and the interpreter succeeds in forming a belief or attitude without the visitor's cognizance of what is going on. If this were to happen, we would say that the visitor was an unwitting partner in the enterprise. When something like this happens, we no longer have a case of education.

In addition, if there are devices or methods which capture the audience so that a message can be gotten across, then again there is a mildly suspect situation. When Sharpe says, "To hold the visitor's interest, interpretation must be more than routine explanation. There

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55In contrast, again, to a school student, who in a sense must learn the subject matter, must commit it to his repertory of beliefs and understandings, because the authority of the school system demands it. He must learn the material in order to pass examinations on it, to be promoted to the next grade, to get a job after his schooling is over. Or, at least he must feign it. Such a demand is not typically found in interpretation.

56Sharpe, op. cit., p. 18.
must be an element of excitement. . ." the possibility is suggested that the wittingness and voluntariness requirements are violated. If the audience is captivated so that some other, and unbeknown to them, message can be gotten to them, then we have perhaps moved from a witting and voluntary situation to one that is not.

In summary, in a simplified version, straightforward explanation seems to be a case of education—i.e., it seems to meet all criteria set forth above on p.

**Interpretation as Translation** For this mode of interpretation very much the same things can be said as have been said for explanatory interpretation. Insofar as the interpreter's job is to translate technical language into terms readily understood by the layman, then the layman may assume that the interpreter is a relevant authority (see note on p. 151) and must trust that the translation is reasonably accurate. In addition, the visitor has to assume that the expert whose language is being translated is also a reliable and relevant authority. But neither of these considerations are sufficient, I think, to count as a failure to meet the "reason criterion."

Nor is there any obvious difficulty in regards to the wittingness and voluntariness criterion—the translation of technical terms is what the visitor might reasonably expect. And as above, the visitor is typically voluntary in both senses. He is free to depart the encounter and is free to reject the belief, etc., if he deems it proper to do so.
I should mention again the same sorts of caveats, however, particularly with respect to a distinction noted already (with respect to the term 'meaningful', p. 133f), that of making nature meaningful, where 'meaningful' is taken to mean 'significant' or 'important.' How one goes about making nature significant or important will determine whether the criteria are met, and this is subject to the same sorts of problems mentioned previously.

**Story-Line Interpretation** Story-line interpretation has received the most attention in the literature, but much of what is said has obvious application to the other modes of interpretation. The reader is invited to make the application as I go along.

In story-line interpretation, as before, there is good reason to think that the first criterion—that the belief, understanding, value, and so forth, is formed on the basis of reasons that support that belief, etc., that seem good to the visitor, that are weighed against the visitor's sense of what constitutes good reasons—is met in the typical interpretive situation.

When an interpreter tells a story of a natural or historical area, one must presume that the interpreter aims at having the visitor enjoy the story as well as learn something of the area. The story might be, for example; a story of the structural adaptions of the few animals that live on exposed marine beaches\(^\text{57}\) and a point of telling this story to the visitor would be so that he came to learn what sorts of animals live on the beaches, what evolutionary forces were at work

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\(^{57}\text{From Sharpe, op. cit., p. 448.}\)
to produce the adaptions that are required to live in the pounding
surf, what environmental hazards are present for the animal life on
the beaches, etc. But what basis is there for the visitor to learn
of these things; why should he accept the naturalist's story? I take
it the typical visitor will accept and learn these things partly on
the basis of a sense of what constitutes a reasonable account for him,
what is taken to be a coherent, sensible story of the beach area. If
the interpreter's story seems to have some sort of flaw in it, if it
seems to be unreasonable in some respect, the visitor certainly has an
opportunity to question the interpreter on the matter, and the inter­
preter can do what is necessary to show the visitor that the story is
indeed a reasonable one. The visitor is "asked," in a sense, to accept
what the interpreter tells as the story of an area on the basis of
what seems to be reasonable to the visitor, how well the interpreter's
story fits together, etc. Indeed, the point of weaving the story in the
first place is to make the myriad of facts and explanations relevant
to an area or phenomenon cohere so that the visitor can see how they
all fit together and make sense. The facts that the interpreter may
want the visitor to come to believe may, in isolation, seem quite
incredible, yet when reasoned into a whole and properly tied together
become reasonable, becoming so on the basis of the coherence of the story.

In addition, the visitor quite reasonably accepts much of what the
interpreter tells in his story because he assumes the interpreter is a
relevant authority on the matter and can be relied upon to be correct.
The story is accepted in part, I suspect, on the basis that the inter­
preter ought to know what he is talking about, that is, he is likely
to be correct in what he says, that the story has a ring of truth to it. This inference on the part of the visitor is, I take it, a perfectly reasonable one. As I have argued previously, it does constitute a good reason for the visitor to accept the beliefs, etc., that the interpreter is aiming at, that he wants the visitor to accept.

Lest it be objected that my attention has been limited to matters of belief or understanding, I will take a brief look at a situation where the goal of the interpretive story-telling situation is not just coming to believe that such-and-so is the case, but also that certain situations are undesirable—that is, the point of the interpretation is the formation of value. Suppose (following Brown's example in Islands of Hope, pp. 86-88) that we have the summer evening bat-flight program, and the interpreter tells his bat-story, mentioning that there has been a decrease in the bat population, why that has happened, and the expected consequences from that event. He does this so that the visitor will come to have a certain value position with respect to the population decline—that it is wrong or undesirable. But as long as he does this in such a way that the visitor comes to have the value on the basis of reasons (such as the consequences of that decline) there is no difficulty with respect to the first criterion being considered here.\(^{58}\)

\(^{58}\)It should be noted that the argument from relevant authority does not seem to hold as much weight here. The interpreter thinks that the decline in bat population is bad—but that is no reason why anyone else should also think so. Mainly because, I suspect, we would want to say that it is a matter of judgment that the visitor is perfectly capable of, provided that he has the relevant information (not necessarily limited to facts), and does not require any expertise to make.
Hence, an effort on the part of the interpreter to form values on behalf of the environment (one sense of 'environmental education') does not violate the visitor's wittingness and voluntariness. In a sense the visitor might reasonably expect the interpreter to be an environmental advocate. When this value formation is done in a forthright fashion--where the visitor is fully aware of what the interpreter is up to, when the visitor is free to leave the interpretive situation, when he is free to reject the value if he so chooses, the criterion is met since there is no constraint to accept at all. Thus it can be said that wittingness and voluntariness are not violated.

To return to belief or understanding, it is also true that the visitor expects that the interpreter will, as shown previously, give information on the environment to which the visitor has come and it would certainly be consistent that this information is given in a story format. Thus the visitor is a witting participant--he is there to get this information, and that is one reason that the encounter exists at all. And, as before, the visitor is voluntary in any of the relevant senses, he is free to leave, and he is free to decline to believe.

There is a fair amount of material in the literature relating to the problem of "making the story a good one," that is, making it interesting and meaningful. In a sense, of course, to simply tell any story at all would be to make the area meaningful, since we may presume that the visitor has little knowledge and that which is gained from the story helps in some way to make it more interesting and meaningful. However, the matter to be dealt with here are those injunctions or
items of advice that, when followed, will presumably give the presentation a little "sparkle." Here I will briefly deal with some that I take to be innocuous, and then I will discuss some that have some danger, in terms of meeting the criteria here being investigated.

Sometimes naturalists and interpreters are told to "touch cords of relevance in each and every person in your group,"\(^{59}\) that is, to include things that have a significance to each person in the audience. One way, out of very many, would be, in the case of an interpretive story on plants, to discuss the historical uses of them, the way that they were used for dyes, medicine, or other purposes,\(^{60}\) things that would be relevant to nearly everyone. Of course the matter of relevance is a very large one indeed, but the point is, that one can carry out interpretation in such a way that what is said is meaningful to many, if not all, in the audience.

Another, and similar, way that an interpretive story can be "spiced up" is to follow Tilden's advice to "relate what is being displayed or described to something within the personality or experience of the visitor."\(^{61,62}\) He advises us that the inclusion of a "homily

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\(^{59}\)Sharpe, op. cit., p. 160.  
\(^{60}\)Ibid., p. 169.  
\(^{61}\)Tilden, op. cit., p. 9.  
\(^{62}\)This is, I should note, one of those cases where one is inclined to say that there's a puzzle as to whether this is just a piece of methodological advice--advice on how to do interpretation better--or whether it describes a logically necessary condition. It could be argued that if a presentation never related anything at all to the visitor's "personality or experience" then it was not an interpretive presentation, but some other kind. I cannot resolve the issue here; all I can do is say that ordinary usage is not clear in this matter. Tilden does say, however, that interpretation that lacks this will be sterile (op. cit., p. 9), so one can conclude that it would still be interpretation, since sterile interpretation is interpretation.
detail" like the fact that, "... these Missouri boys, now striving to kill each other [in the Civil War], were once fed gingerbread and doughnuts from the same Aunt Nellie's jar." Such advice I take to be perfectly reasonable, and advice which does not present any difficulties for the two criteria of 'education' that are presently being applied to the activity of interpretation.

Another sort of recommendation is often given. The following will serve as an example:

The guide [on a cave tour] can use the same techniques as a good writer to reinforce the visitor's involvement in the interpretive process. "Active" verbs, "picture-making" nouns and adjectives, as well as drama and suspense, should be used to give life to the presentation.

Here again is a procedural recommendation, one that would "enliven" an interpretive presentation, make it more meaningful and interesting, and one that is clearly aimed at visitor enjoyment. And there does not seem to be any difficulty for the two criteria, either.

After this perhaps too brief presentation of some innocuous techniques for interpretation, it is time to look at some that are potentially problematic with respect to the two criteria.

I already noted that Tilden advises us to 'use those devices of language which take the hearer or reader toward a certification of spirit,' and that Duñmire tells us to "... involve [the audience] through emotional impact." It is time here to take this advice under

63 Ibid., p. 43.
64 Shonom, op. cit., p. 84.
65 Tilden's advice is from op. cit., p. 30.
66 Ibid., p. 243.
scrutiny. Before doing that, however, I must engage in a small digression, a discussion on 'emotive language.'

**Emotive Language** Language can be used to do a number of different things, but for my purposes here I just need to observe that it can be used informatively or emotively. When we use language in the informative mode what we intend is (obviously) to convey information. To say that, "The tree is 25 feet tall" is to use language in the informative mode—what the statement does is tell us something about the tree. On the other hand, language can be used to arouse the feelings of the hearer, so that the expression, "So-and-so is a queer" is typically used to arouse feelings against "so-and-so". The point of calling someone a "queer" is not necessarily to inform about the person, to describe the person, but rather to have an emotive impact, to arouse feelings, and in this case adverse or negative ones. But his expression does not necessarily inform—although it might, when 'queer' means 'homosexual,' for example. Thus the same expression may inform, may arouse feelings, or may do both, as would be the case if the terms 'queer' and 'homosexual' had no emotive meaning at all. 67

The reason for raising this issue is that the emotive meaning of language is not always apparent to either the hearer or the speaker.

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Consider the terms 'bureaucrat,' 'government official,' and 'public servant,' which have the same, or nearly the same descriptive meaning, but which differ markedly in the emotive meaning. 'Bureaucrat' generally has a negative emotive meaning, whereas 'public servant' has a positive one, and 'government official' is emotively neutral, but these facts are not always obvious to the speaker or hearer, and tend to arouse feelings in a very subtle fashion. To say, for example, that "This criminal is charged with the most vicious crime known to man," subtly sways the listener to a position of disapproval to the person charged. Such a thing is "... logically objectionable because it assumes attitudes... of disapproval without providing evidence that such an attitude is justified," It is the fact that such language use results in the formation of attitude (or "value") without providing any reason for that attitude that the use of such language becomes suspect. It seems to provide information when instead it sways the listener and suggests that he have an attitude that he might not have if he were cognizant of what was going on when such language was used.

To return to the procedural advice given by Tilden and Dunmire (p.160 above): This advice, when followed too literally, may lead to a failure to meet the two criteria. If the interpreter uses emotive language to win approval (or disapproval) of something, and without backing such approval (or disapproval) with reasons, then neither criteria may be met. On the first criterion, the interpreter's use of

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68 From Copi, op. cit., p. 59.
69 Engel, op. cit., p. 80.
70 Ibid.
emotive language to sway feeling or attitude without providing reasons for such feelings or attitudes has helped form attitude, but without the visitor getting good reasons for the attitude. Hence the first criterion is not met. In addition, since the attitude formation is quite subtle, in many cases, the visitor would be an unwitting participant in the process, thus the encounter fails to meet the second criterion.

Lest it be objected that I am inventing problems that are not at all likely to happen in interpretation, 71 I will give two examples where emotive language is used. First, in Dunmire's chapter in *Interpreting the Environment* he has an illustration of what he takes to be "eyecatching covers" of publications entitled "Animal Friends of the Northwest" and "Animal Friends of the Southwest," 72 and depicted on those publications are bears and mountain lions. Of course, examples are innocent, but the term 'friend' is an emotive term, and serves to sway attitude in favor of these animals, without giving reasons for that attitude. 73 Innocent or not, such a device violates the two criteria, for reasons already mentioned. The second example comes from Brown, where he discusses the idea that the "biosphere is being murdered." 74 Such a metaphor has no place in an interpretive presentation unless it is backed up with reasons--at least it has no place if

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71 I may be willing to admit that they are not common, but I think they are more likely than many suppose.
72 Sharpe, *op. cit.*, p. 245.
73 One may presume that some reasons are given within the publication for considering these animals 'friends.' It should also be noted that not all people consider these creatures friends--ranchers, for example.
74 Brown, *op. cit.*, p. 82.
we want the interpretive presentation to be educational as well.

Perhaps all of this should be qualified in the following way: To the extent that an interpretive encounter rests on the use of emotive language—to the extent that the belief, attitude, value, understanding, and so on, are formed by the use of such language—then to that extent the encounter is not educational. Thus an encounter would not be determined to be non-educational simply because there was an occasional instance of emotive language. But where those instances occurred we might have to say that those occurrences were not educational.

To see this in its extreme—that is, the fact that the formation of beliefs, attitudes, values, and so on, where such formation is done in certain ways (not necessarily linguistic) is not a case of education—we can use an example used in Chapter III (see p. 69). Let us imagine that we have a technique, or perhaps a pill, that can be utilized to form any belief, attitude, and so on, and do so while causing the visitor to feel a great deal of enjoyment and find it all a very meaningful experience. Does the administration of this technique or pill constitute education? As shown before, the answer is no, since the formation is not on the basis of reasons. And if the visitor were secretly administered such a pill or technique, then it would violate the wittingness criterion. To do such a thing would be to abuse the office of the interpreter for the interpreter's own ends. Such a situation violates the sense of what constitutes intellectual honesty and fairness.

I am not, of course, suggesting that any one is proposing that such a method of interpretation be adopted. No one would do that, I
think. Yet, I see some inclinations in that direction. Consider Brown's desire to have "... environmental conservation cease being a matter of voluntary good deeds and be, instead, an involuntary natural act, like breathing."\(^75\) I don't think it is completely unreasonable to interpret this passage as leaning toward the aim of "correct behavior" and away from "correct behavior done for good reasons." There is all the difference in the world between the two, and one we ought not forget. And when Tilden endorses the idea that "it is better to be nature minded than be nature wise,"\(^76\) what he is saying, I take it, is just as well that the visitor do what is right, regardless of whether he has reasons for doing so. Most interpretive encounters are educational, and are not manipulative at all. But I also think that a preoccupation with results could lead interpreters toward such a situation.

To what does this point? Simply, that to the extent that an interpreter manipulates the audience into having an attitude, belief, value, etc., as opposed to forming those beliefs, attitudes, and so forth on the basis of reasons, and with a witting and voluntary audience—free to reject the attitude or belief, and cognizant of what the interpreter is about—to that extent we do not have an educational encounter (even though it may still be an interpretive one).

**Interpretation "by" the Environment.** As I have already noted\(^77\) this mode of interpretation, if it is one at all, occurs when the interpreter brings the visitor to a beautiful vista, and so on. Just being

\(^75\)Brown, op. cit., p. 96.
\(^76\)Tilden, op. cit., quoting Ansel F. Hall, p. 33.
\(^77\)Pp. 140ff.
there is expected in some way to inspire the visitor. The visitor
of course may wish to have such inspirational moments, to experience
the scenic grandeur, to be uplifted by it, so we would say that he is
witting and voluntary, and that criterion is met. But does the mode
meet the criterion of attitude, etc., formation on the basis of
reasons? I suspect not, since reasons don't seem to play any role at
all here. It is, in the situation I have been focusing upon, primarily
a matter of aesthetics, and so we would have to say that it may not be
educational in the sense we have been discussing. But this I take
to be a wholly innocent situation, and one that does not present any
real problems.

However, problems do suggest themselves when we have the inter-
preter using a situation to bring about a state of mind or an attitude
that the visitor might not willing enter into. One can use this mode
of interpretation in a manipulative way. When Brown suggests that
"... on site realities of heat, wind, and dust get [the visitor]
there physically. Now he has a chance to actually feel what it was
like when there was no escape from the natural world..." He goes
on, "... [this] is to demonstrate [but certainly not prove] that
there is no escape from nature." To manipulate the visitor's state
of mind in this way is to give up the activity of educating the visitor,
and is to do something else to him. It is to ignore the visitor's

78 It might be educational in some other sense.
79 He is obviously a fruitful source for examples of this sort. This
theme pervades his writing: we are in desperate straights, and must use
any "island" for rescue.
80 Brown, op. cit., p. 94.
81 Ibid., p. 96.
reasonableness and desire for reasons, and to treat him as something
to be altered, to treat him as a problem that needs correction. This
outlook is not, I submit, appropriate for interpretation, and is clearly
not for education. 82

EI as EE

A brief discussion of the various ways that EI can be construed as
EE is now in order. No great detail will be provided, since the burden
point of this chapter has had to do with the 'education' part of EE.
Now for the 'environmental' part.

EE/in(s). It seems reasonably obvious that EI is typically in the
environment, either in the environment of the subject matter or the
thing being interpreted, or in nature, the out-of-doors, the sense of
'the environment' of most concern in this study. EI typically occurs
out-of-doors, and is (in part) 83 educational, thus EI is EE/in(s).

EE/about. Again, it is typical that EI has as its subject matter
nature, out-of-doors, the ocean, trees, forests, and so on, of the
natural world. Since EI is about these things of the environment,
it is also EE/about.

EE/with. Not only is EI educational, in(s) the environment, and about
that environment, it typically involves using the environment for its

82 Note that this is what often happens in the schools, though: the
child is considered to be a person who must have the correct beliefs
and skills, and virtually whatever methods can be used to get him to
acquire those beliefs and skills are appropriate. We can use behavior
modification, fear, privation, etc.

83 In every case "in part," because it is also carried out in a way
that transcends (goes beyond) education.
pedagogical goals (belief, understanding, etc.), that is to say, when an interpreter explains about the marine life of the seashore, those creatures, and the sea are used to illustrate or make the point he is trying to make. Hence, he uses the environment. In general EI is EE in a number of senses at once: it is EE/in, about, and with, all at the same time.

EE/for. In contrast to the above, EI is not necessarily always, or even usually, for the environment. Interpretation can go on where there is no effort made to get the visitor to hold certain beliefs, values, and so on, for the environment. That is, interpretation can be concerned with facts alone, and not values. Whether it should be is, of course, another issue.

When interpretation does aim at the formation of value or attitude for the environment, and that formation is done on the basis of good reasons, with a witting and voluntary visitor, it is construed as education for the environment.

EE/"by". Interpretation is sometimes construed as placing (or inducing) the visitor in (to) certain situations or environments where s/he will have certain experiences that will cause the formation of beliefs, attitudes, etc., particularly environmental (i.e., for the environment) ones. As has been amply discussed, it suspicions as education-d, yet it may be construed as education-v, in that it results in a state of mind taken to be worthwhile.

EI is, then, EE in many respects. That does not mean that it is environmental schooling, or environmental teaching. Interpretation

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84See above p. 67.
remains unique in several respects, one of which is the requirement that certain efforts be made to make the subject matter particularly meaningful to the visitor. Such a requirement is not found in the other typical forms of pedagogy. Indeed, to some extent, EI is not a matter of pedagogy alone, but is a matter of entertainment and enjoyment, matters that transcend pedagogy.

In conclusion, I have shown that, for the most part, the way that interpretation is carried out—the method or process of interpretation—is such that it satisfies the criteria of an educational endeavor. We have also seen that there is the possibility that the practice can depart from the restrictive criteria of education, and shade off into manipulative, non-educational, situations.

Summary

In trying to ascertain the constitutive process goals of interpretation—those characteristics that serve to mark off interpretation from other pedagogical activities—it is difficult to distinguish methodological advice from process conditions. Assuming that it can be done, one can examine various modes of interpretation and from a common element ascertain what must be present for something to be a case of interpretation.

The common element in the modes of explanation, translation, storyline, and interpretation "by" the environment is meaningfulness and/or interesting in order for it to be an interpretive presentation. This condition is not found in teaching, schooling, or education, and serves to distinguish interpretation from them.
Yet interpretation does have some elements in common with education. For the most part the modes of interpretation do meet the criteria of education: that the belief, understanding, value, etc. aimed at be formed on the bases of reason seen as such by the visitor, and that the visitor be a witting and voluntary participant. There are possible ways that the criteria of education are not met. One example is in the use of emotive language which may bring the visitor to have certain value but without his being a witting participant, and without his coming to have the value on the basis of reasons. Another case is where the interpreter puts the visitor in such a situation where he will experience certain things and thereby come to have a value desired by the interpreter. Either of these cases would not be education in the sense defined in this study.

That does not mean that the use of figurative language, and the like, necessarily means that the interpretive encounter is not educational. 'Education' is an inherently vague term, and applies to the extent that the criteria are met. A case is not either educational or not educational; rather it is more or less. For the most part, interpretation is educational to a high degree.

EI is educational, then, and environmental education as well, in that it typically occurs out-of-doors. It is also typically about the out-of-doors, particularly the environment in which it occurs, and quite often uses the environment for pedagogical purpose, and is thus with the environment. It is sometimes for the environment, and perhaps "by" the environment in certain cases, assuming it makes sense to talk about education "by" the environment.
But EI is not identical to EE, in so far as EI has a different constitutive product goal (enjoyment) and has a particular methodology as a necessary condition that EE doesn't have: making the subject matter meaningful (in some sense or other).
CHAPTER VII

CONCLUSIONS AND IMPLICATIONS

It is now the place to draw the various points made in the study together in order to fulfill the promise made in the beginning of this study: to determine the logical relationships between environmental education, environmental interpretation, and education. After the study has been drawn together, in the first part of this chapter, I will turn to a discussion of some more or less practical implications of the conclusions reached.

Summary and Conclusions

To return to the question, "Is environmental interpretation also environmental education?" the answer is, as I have indicated, that it all depends on what is meant by 'environmental interpretation' and 'environmental education.'

The pedagogical sense of 'interpret,' that environmental interpretation that is engaged in to bring about some learning, as opposed to that sense of 'interpretation' which has to do with research and investigation, is within the concept of 'environmental education' insofar as the environmental interpretation is an activity that can be characterized as one or more of the following:

education in (s) the environment, that is, an educational encounter in the outdoors, or in the environment that is being interpreted;

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1See above, p. 31.
education "by" the environment,² education that is brought about by having the visitor be in the environment that is being "interpreted," and where that environment is expected to have desirable effects on the visitor.

education for the environment, an educational encounter that has as its aim or purpose the preservation or enhancement of some environment, particularly the natural environment;

education about the environment, an educational encounter that has as its aim the formation of beliefs, skills, and so on, about the environment; or,

education with the environment, an educational encounter or enterprise that utilizes the environment in a pedagogically relevant way; where in each of these possibilities 'education' means that the state of mind that results, or is hoped to result, is taken to be valuable or worthwhile, and the state of mind is brought about by (i) a trying on the part of one member of the encounter to bring about in the other member in the encounter a (ii) belief, attitude, skill, disposition, value, understanding, or taste, under conditions that (iii) the other person comes to hold or adopt the belief, attitude, etc., on the basis of reasons that support that belief, understanding, value, etc., and that the person is (iv) a witting and voluntary partner in this enterprise. To the extent that these criteria (i) through (iv) are not met by interpretation, then to that extent it must be said that interpretation is not environmental education.³

²The occasional mention of this should not be taken as endorsement.
³The emphasis is supplied because it might be environmental in the sense that it is for, about, etc., the environment, but not education.
It seems that environmental interpretation is conceptually related to environmental education, for interpretation is taken to be an intentional activity (a "trying") that is aimed at (in part)\(^4\) a worthwhile belief, understanding, skill, etc., and is typically done in such a way that the belief, etc., is formed on the basis of reasons that support the belief, etc., and typically the visitor is a witting and voluntary partner in the enterprise. Environmental interpretation typically occurs in the environment (natural, or out-of-doors), is certainly about the environment in which it takes place, is frequently done with the environment, and is often undertaken for, or on behalf of, the environment. Consequently we can say that environmental interpretation is to some extent also environmental education.

What this does not mean, of course, is that environmental interpretation is environmental education in the sense that 'education' means 'schooling.' I have endeavored to distinguish between 'education' and 'schooling,' and I want to do so here as well. 'Schooling,' it seems, is characterized in part by the fact that the students are frequently not witting and voluntary participants in the encounter, and frequently the beliefs, understandings, values, etc., are not formed on the basis of reasons that support those beliefs, etc. Thus schooling is often not educational, on the analysis presented previously. To the extent that schooling is not educational, to that extent interpretation cannot be included within the conceptual bounds

\(^4\)"In part" because it is also aimed at something else, namely visitor enjoyment, entertainment, recreation. The aims of EE and EI overlap, but are not identical.
of schooling, because interpretation has voluntary and witting participants, as does education, and schooling is sometimes the antithesis of that.

The reader has perhaps noticed my reluctance to give a definite, specific answer to the question, "Is EI conceptually related to EE?" What I do when answering that question is say something like, "To the extent that EI has characteristics such-and-so, then to that extent it is also EE." Why don't I give a straightforward, "Yes" or "No" answer?

Three considerations give rise to my tentativeness. The first is that the concept of 'education' is vague. The limits of application are inherently imprecise, and education has to do with characteristics that something has in varying degrees. 'Education' applies to different activities in varying "amounts." To ask if something is education is similar to asking if something is heavy. It all depends on . . . The question is unlike a question about whether something is a bird or a plane. Thus, EI is educational to a certain extent, more or less.

The last point suggests a related consideration, namely, that EI is made up of human activities that have certain characteristics present in varying amounts, and the frequency of those characteristics differs from time to time. Thus one has to see if this or that episode of EI is educational or not.

The final consideration is that, I must confess, I am not perfectly satisfied with all the arguments presented in the analysis of EI. As was indicated in Chapter I, the concept of 'EI' has not been subjected to critical philosophical scrutiny, so some of the ways of
expressing interpretive ideas is less than satisfactory and clear.⁵

These points do not mean that the analysis is thereby devalued. Recognizing that 'education' is vague is to recognize the kind of problem being dealt with, and the kind of answer that must be given. If vagueness is bothersome, it is just something that will have to be lived with.

To say that environmental interpretation is educational in the restricted sense used herein is not to say that the concepts are identical. Environmental interpretation and environmental education are not the same things because of a non-educational condition of enjoyment (entertainment, or recreation.) A constitutive purpose of interpretation is to bring about enjoyment as well as learning, and the interpretive practice takes this into account. The concepts of environmental interpretation and environmental education do overlap, but are not identical—environmental education is not necessarily aimed at enjoyment, while interpretation is. Much the same could be said for 'schooling': schooling is never necessarily aimed at enjoyment, although it could use enjoyment for pedagogical purposes. Again it is seen how interpretation is conceptually distinct from schooling.

I am now in a position to adequately respond to "Cherem's Problem" (see p. 2) with a better perspective on the factors involved. With 'education' and 'schooling' clearly distinguished, it can be said that environmental interpretation overlaps with environmental

⁵For example, the concept 'meaningful' is very rough, and may not be adequate for saying what we want to say with it in regards to interpretation.
education, and that environmental schooling might overlap with environ­
mental education, but that environmental interpretation and environ­
mental schooling are rather more distinct than earlier depicted.

Depicted in a Venn diagram,

\[ EI \cap EE \cap ES \]

Figure 2. Environmental Education

EI and ES only overlap because of the non-educational purpose of EI, and ES and EE overlap where there are shared goals, but not where ES fails to meet the other conditions for education: ES may not be educational, even if environmental.\(^6\)

Only if 'education' is taken to be an evaluative word—used to evaluate, to approve, the state of mind that results from the encounter—could ES and EI be within one circle of EE, and in so doing it would be saying that the state of mind that results is approved of regardless of how it develops. In this sense 'education' in 'environmental education' is an evaluative word, and I have argued elsewhere that a purely evaluative use is not the best approach, rather it is more fruitful and informative to have a mixed use. As can be seen from the diagram above, the mixed (evaluative and descriptive) use serves to clearly distinguish, and in a meaningful way, two concepts that would otherwise be closely linked.

\(^6\)Venn Diagrams are woefully inadequate for depicting complex conceptual relationships such as those between EI, EE, education, and schooling.
The difficulty that Cherem had with allowing EI to be considered conceptually part of EE stems, I believe, from his identification of 'education' and 'schooling.' As I have indicated in Chapter III and Appendix A the identification is legitimate in that, as a matter of fact, in one sense 'education' and 'schooling' do mean the same, and in that sense of 'education' it is possible that there is also a negative evaluation of the state of mind that results (or perhaps the process of educating, or both). He was reluctant to allow that negative implication be applied to EI, and rightfully so. However, it is my opinion that, in the first place, 'education' as herein defined is theoretically powerful, enough so that it helps sort out EI, etc., thus it is proper to think in terms of EE; and in the second place, the negative evaluative sense of 'education' is relatively minor, and perhaps ought to be ignored. In any case, 'education,' as I have used it here, is quite different from Cherem's use.

It may be objected that this study was oriented too much toward the educational aspects of interpretation, and not enough toward the non-educational aspects of enjoyment-recreation-entertainment. Indeed, other than a passing mention of the concepts, they were rendered no analysis at all. All that I can say is that this is a study in education, not recreation, etc., and that those matters will be left to others to deal with.

**Some Practical Implications**

One benefit of this study is that of gaining an understanding of the conceptual relationships between EI, EE, and education. Simply
ascertaining the logical relationships between those concepts is at least of some practical import; in my view it is sufficient.

But there are some other practical implications as well. As was indicated in the introduction to this study there is some reason to believe that concepts do help control thought and sentiment, and that as interpretation is viewed from the perspective of one or another sense of 'education,' or perhaps as not being education at all, so also we will be inclined to proceed with the practice of interpretation in different ways. For example, if we take 'education' to mean simply that whatever is so predicated is worthwhile or valuable (i.e., a strictly evaluative sense of the term), then we would not view the enterprise as one that is carried out under the constraints of education implied by the descriptive use of the term. Interpretation as education (taken in an evaluative sense) would be different from interpretation viewed as education in another, descriptive sense. This is, I suspect, something that occurred in Islands of Hope: Brown was thinking only of interpretation in terms of that which is worthwhile ("Its practitioners educate the public," p. 77) and thus the practice could include many more sorts of things than could be included if 'educate' implied certain descriptive conditions as well. The absence of those descriptive conditions allowed him to speak of educating "by" the environment, and raised problems of wittingness and voluntariness (see pp. 161ff.

In a similar way, a too narrow meaning for 'education' in Cherem's "New Frontiers" seemed to remove interpretation from the constraints on manner implied by 'education' as explicated in Chapter IV. Cherem
takes 'education' and 'schooling' to be the same thing, and thus, in his quest to provide a conceptual relationship between environmental interpretation, environmental education (= schooling), and environmental communications, he turns to 'environmental learning' as the unifying concept, which has no descriptive or evaluative implications approaching the power of 'environmental education' as used herein. Not only does EL lack the conceptual power that EE has, but EL does not carry with it the restrictions on manner found with the concept of 'education.' Consequently, we are not (or at least not obviously) constrained to carry out interpretation, environmental education (= schooling), or environmental communications under any of the limits imposed by the conditions of wittingness, voluntariness, and the use of good reason, or reasonableness.

In other words, if we want the environmental activity to count as educational, it must be done in a certain way—it must, at least in part, be carried on under certain logically required conditions. To the extent that the environmental activity does not meet those conditions, then to that extent it is not educational.

Some Speculations on the Place of EL. I will now indulge myself in some speculations that can be based on the analysis above.

EL is conceptually unique—being neither environmental education alone nor recreation alone—so perhaps it makes good management sense to keep its control, development, and application within a unique bureaucratic department or division. For example, environmental

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This term is used as a strictly technical and descriptive term, and here has no evaluative implication.
interpretation should not be relegated to control by colleges or
schools of education, which are, in reality, colleges and schools of
schooling (as opposed to education), and such colleges and schools
perceive and carry out their business as primarily schooling oriented,
rather than (environmental) education oriented. The business of most
colleges of education is the preparation of teachers and the study of
schools and schooling, and consequently they are ill-equipped for the
development of environmental interpretation, which is quite different
from schooling. There is no reason to suspect that a college of
education would have any competence in dealing with interpretation
viewed as education.

By the same token, since there is a clear and definite educational
dimension to interpretation, which is in addition to its recreational/
entertainment dimension, the control and development of it shouldn't
be relegated to organizations of outdoor recreation, which may be
disinclined to show concern for the educational potential and process
of EI, particularly if it is viewed as purely recreational, just a
matter of fun, something more or less frivolous. Under these conditions
it will lose its educational potential (in both the evaluative and
descriptive senses), and that would, in turn, be a loss for the visi-
tors to the national parks and forests, and perhaps also a loss for
education (but not schooling) in America.

The kind of agency suited for dealing with EI would have some of
these characteristics: it would be predicated on, and operate with,
a respect for education (but not necessarily schooling), in that it
would (of course) take the state of mind aimed at in the visitors to
be valuable, but also be concerned that the state of mind is the result of good reasons (from the viewpoint of the visitor), and accepted on the basis that they seem reasonable, and also respect the visitor's willingness and voluntariness. In addition, though, the organization would have to have a manifest concern for the enjoyment and recreation of the visitor, combined in the interpretive encounter. Thus the organization must not be concerned with pedantry, but yet with pedagogy, since people do come to the parks, and so on, for enjoyment. The particular interpretive task is to combine, weld, pedagogy and fun, and cannot lose sight of either.

The distinction noted at the beginning of Chapter V (see pp. 97ff) between Interpretation and interpretation can be used for support and further refinement of what is being said here. It will be recalled that 'Interpretation' refers to a pattern or system of interpretive encounters, while 'interpretation' refers to those specific interpretive encounters between naturalists and visitors. The Interpretation of a park or historic site is based upon different concerns than the interpretation (although they are related, of course), and would take into account planning and the design of an area, the facilities to be developed, and other management concerns such as recreational use and resource exploitation. Thus the Interpretation of the park would be that planned series of interpretive encounters determined to be best for an overall, broad, park management plan and objective. On the other hand the interpretation of a feature or area, since it has to do primarily with a certain sort of encounter and interaction between two or more people (the interpreter and visitor), has a different set
of concerns. To be sure the interpretation must be consistent with interpretation and in accord with management objectives, but it must be mainly concerned with that encounter with the visitor. If interpretation is to be educational, then educational considerations—the giving of reasons, etc.—must be taken into account, and of course all those problems to be found in the effort to have the visitor learn and enjoy must be also taken into consideration, matters of psychology, visitor background and interests, communication, and so on. These things are the proper domain of interpretation, and not so much Interpretation.

What all of this means is that, since the concerns of Interpretation and interpretation are in many respects different, the former having more to do with management and policy, and the latter to do with pedagogy and recreation, again a division of bureaucratic responsibility is indicated. With respect to Interpretation a department controlling all management considerations seems to be the best for determining what the Interpretation should be, i.e., what specific things should be interpreted in light of broad management and policy considerations. It goes without saying, I trust, in these days of enlightened management practices interdepartmental relationships are extremely important. Those whose concern is Interpretation must be cognizant of the matters of concern of interpretation; those whose concern is the conduct of Interpretation must be aware of Interpretation and other management issues and problems. And those who would carry out the Interpretation—interpreters—must concern themselves with the practical matter of that encounter with the visitor, and all
the problems associated with it. To combine the two efforts would make the successful accomplishment of either less easy.

Similarly, the training of personnel would have different foci in interpretation and interpretation. In the former the concern is to produce efficient management personnel, people who can make policy decisions, administer programs, and so on; in the latter the concern is to produce people who have the art and skill to pull-off an interpretive encounter, to communicate, teach, and have it all result in learning and enjoyment for the visitor. These people do a different sort of thing than one who develops management plans, and it is a rare person who can do both well.

Finally, academic research follows different lines in interpretation and interpretation, with the former being concerned with broader management, policy, and administrative matters, while the latter has to do with those smaller units of human interaction where one person tries to make another come to learn and enjoy as well. Here the research has to be with matters of interests, of visitors evaluation of visitor characteristics, and so on, things that one must be concerned with in pedagogy and recreation.

Thus, if we want EI to be EE in the sense described and defended, then something like the above would be in order.

But why do that? Why make EI important beyond its recreational effect (which is certainly worthy and important in its own right)?

Environmental interpretation seems to me to be a viable alternative to schooling as an educative resource. I understand that the number of museums is growing and that they are seen as ways of effecting
education in ways independent of the schools. One problem with many museums is that they are pedantic, with just taxonomic labels, and perhaps an uninteresting description to go along with it. If they were to become interpretive . . . ?

People go to the museums and pick up a little knowledge, and they also go to the parks and historical sites to pick up a little knowledge. The point I want to make is that EI has a great potential as an educative source. No one has to participate, but may do so, and be educated thereby. It is like the Public Broadcasting System in that respect: it is there for those who want it, free, responsible, and offered by public agencies, and can reach people well beyond schooling (i.e., those beyond the schooling age, or those adverse to schooling.)

EI could not replace schooling, which serves other functions besides educative ones, such as the allocation of scarce resources, credentialing, and custodial functions. We cannot expect EI and the like to take over those tasks, and wouldn't want that to happen anyway.

Environmental interpretation is, to a large extent, very possibly one of the truly educational activities engaged in by public agencies (governmental and non-governmental) in the United States, since it is an activity that is voluntarily engaged in by witting participants and provides for the formation of belief, understanding, values, and so on, on the basis of good reasons. To construe it any other way, to relegate its control, development, or practice to agencies that have other concerns could have as its consequence a great loss to education.
APPENDIX A
THEORY OF TRANSFERAL OF VALUATION

It would be informative to have a theory that accounts for the proliferation of evaluative meanings, and the following theory seems to make sense of the situation.

The first thing to note is that 'education-d' is sometimes equivalent in descriptive meaning to 'schooling-d' (see above, p. ). Insofar as 'education-d' means 'schooling-d' there is a basis for an account of the shifting evaluative meanings.

Recall Pratte's account of the interchangeability of 'schooling' and 'education': when we believe that the schools are doing what we think they ought to do, we are quite willing to say that schooling is educational, but when we believe that the schools are not doing what we believe they ought to do, we reserve the term 'education' for what the schools should do, and refer to what they are doing as 'schooling.'

If Pratte's point is granted, then we can only wonder how it is that there is a negative evaluative meaning for 'education,' that is, how is it that 'education' came to be used to imply disapproval?

The solution is to make Pratte's point a more general one about the way words function in our language. I will call it the "Theory of Transferal of Valuation." Stated in general terms, insofar as word W shares a descriptive meaning with some other word W' (i.e., they are

descriptively synonymous), and one of the words also has an evaluative meaning, that evaluative meaning will, over time, be transferred to the other. In other words, if $W$ both describes and evaluates the same thing that $W'$ simply describes, then $W'$ will also come to be used to evaluate it as well (with the same evaluation), and vice versa.

In Pratte's account the movement is from the value of education to the value of schooling, so that to the extent that we take schooling to be valuable we identify it as education. On the other hand, it also seems to work in reverse: as people identify education as schooling in the descriptive sense, and also take schooling to be evil or detrimental, they also take education to be evil or detrimental, and 'education-$v$' becomes deprecatory.

Expressed in a temporal order,

1) 'education-$d,v^+$' is applied to school-$d$, so that we have

2) 'school-$d,v^+$' = 'education-$d,v^+$'  

which entails that

3) 'education-$d$' = 'schooling-$d$'

but because of disillusionment with the system of official education (i.e., schooling),

4) 'schooling-$v^-$' while 'school-$d$' = 'education-$d$', so that,

5) 'school-$d,v^-$' = 'education-$d,v^-$' 

and by the simple evaluative use of a term,

6) 'education-$v^-$' QED

To put all of this in a slightly different way, the negative evaluative use of 'education' rests on the confusion of education and schooling, possibly originally by the spokesmen of "the system," convinced
that what was evaluated by them as good was also descriptively the same as education-d. They then easily termed schooling 'education.' Critics also called schooling 'education,' but for them it was bad or undesirable, so that 'education' came to be a negative evaluative word.

The theory here presented is similar to C.I. Stevenson's idea of a "persuasive definition." In persuasive definition the term defined is a familiar one with a descriptive and an emotive meaning. The definition purports to make precise the descriptive meaning, but without any change in emotive meaning. The definition is used, consciously or not, to redirect attitude through the interplay of the descriptive and emotive meanings.

For example, if one were to define 'education' as 'the preparation of the young for adult life' in a purported effort to make precise the descriptive meaning of 'education,' what is also accomplished is that attitudes are redirected. The favorable attitude aroused by 'education' is transferred to the more precise notion given by the definition. Or in other terms, the "program" described by the definition is given a favorable attitude by the definitional maneuver. Accepting the definition amounts to acquiring a favorable attitude toward preparation of the young for adult life.

My theory differs in several respects. First, Stevenson's account of persuasive definition seems to be an account of how language functions in specific situations. Persuasive definitions are particular linguistic maneuvers or acts that accomplish certain ends in a

particular context: viz., the redirection of attitude. My account, on the other hand, is a general theory of a shift in the meaning or use of value laden terms within a language community as a whole, and does not specify the nature of the instances of varying uses. For example, the general shift may be related to frequent persuasive definitions, but the two are theoretically independent.

In addition, Stevenson's account rests on the emotive meaning—arousal of attitude—while mine does not. The evaluative use of 'education' (or 'schooling') does not necessarily have to do with attitude.

This account—the "Theory of Transferral of Valuation"—further establishes that 'schooling' and 'education' do not always mean the same thing, descriptively or evaluatively. That is, the account works, and makes sense, because the descriptive and evaluative uses of 'education' and 'schooling' are not the same.
APPENDIX B

EXAMPLE OF "ACCIDENTAL" INTERPRETATION

It is necessary to provide more information about this example to make it significant and understandable. The event that Tilden\(^1\) refers to as "accidental interpretation" was related to him in a letter from a Dr. Merriam, and went as follows: a friend was riding along a cliff over Canyon de Chelly in the Navajo Indian Reservation (in NW Arizona). The friend was observing the magnificent view, when from a side canyon a Navajo Indian came out and stood on a rock and sang a song.

That chance event was no doubt very impressive, and it is also what Tilden calls "accidental interpretation." The act of singing "gave life to a picture that was otherwise beautiful but inert."

My point, of course, is that it doesn't make sense to talk about "accidental interpretation," and the case cited cannot be interpretation at all unless that Navajo intended his singing to have an interpretive effect. There is no reason to think that he did. In addition, this seems to be best characterized as "interpretation by," which was shown on pp. 165 to be a very suspect idea. Also, it has been shown elsewhere that if this were to be taken to be "education by" the environment then it is also suspicious in terms of the account given for 'education' (see pp. 87ff.

\(^1\)From Tilden, op. cit., pp. 36-7.
I have noted the frequent reference to "the story." We are told that the "marine interpreter has an unusual opportunity to reveal the story of the structural adaptions [of intertidal organisms],"\(^1\) that interpreters tell the story of the park or recreation area,\(^2\) or that certain activities interpret the heritage of the state.\(^3\) But, is there any reason to suppose that there is the story? One story, and one story alone? The story that the interpreter is to "discover" and then relate to his audience? The "one, real" story?

There is no good reason to suppose that there is the story, unless, perhaps, we mean by that all the facts of a given area, object, and so forth, or all the "substories" or "novella" of an area, the collection of all the stories that could be told about an area or thing.

But as Fischer puts it, "there is an infinity of particulars in the past."\(^4\) For any historical event, or any phenomenon at all, there is an infinity of facts associated with it. We cannot expect any interpreter to be able to tell all the facts about the area, the wildlife, etc., simply because to tell all the facts would take up all the time. To say all that could be said about something, no matter how true,

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1Sharpe, op. cit., p. 448.
2From, op. cit., p. 76.
3Sharpe, op. cit., p. 7.
would be uninteresting, unimportant, and impossible.  

An interpreter, then, must perforce tell a story (or several stories) if he is to tell any story at all. That is, he must select out of all the possible facts some of which he will weave into a story, put into a scheme, or pattern with a theme. The interpreter will select those which he sees as relevant to some story (but not the story), and may do this on the basis of what he sees as important or significant, what he thinks an important story would be, what he believes would be interesting to the audience, what he thinks they would understand, or ought to know, etc.

It cannot be supposed that "the facts" will indicate the story to be told, that the findings of the experts will make the determination, as Tilden seems to suggest. The "facts" tell us nothing at all.

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5E.g., pick any point in space. There is an infinity of facts about that point: it is $n$ inches from point $p$, $m$ inches from point $p'$, etc.

6It is not my intention to prescribe the way to make the selection. These considerations are only mentioned to make the point.

Notice how this observation—that the interpreter must select—fits with the idea and analysis of 'the environment' discussed in Chapter III. Since 'the environment' logically could include everything, to interpret the environment would be to tell the story of everything in the universe, and that is something that we could not expect anyone to do. Thus it makes sense to say that when one interprets the environment one not only selects what it will be the environment of, but also those relevant components deemed as important for some purpose or other. In short, it cannot make sense to talk about interpreting the environment unless it is implicitly recognized that a great deal of selection must occur.

7Tilden, op. cit., p. 23. He writes that, "The interpreter begins where the decision has finally been made: 'This is what we think proper to call the facts.'" A little later he says, "My answer [when authorities disagree] is that the man engaged in interpretation . . . must wait for an authoritative decision from some source." And, finally, "In such a case [where there are many hypotheses as to what caused something], true interpretation need not be hampered," with the suggestion that it would be nice if there were not alternative hypotheses accepted by the authorities. It seems that Tilden thinks that when the authority determines (interprets?) the true account, then the interpreter takes that account—the story—and tells it to the visitor.
They simply are, and it is up to interpreters to make sense out of them, to provide the pattern, and to select which are relevant and which are not. No amount of knowledge will tell us the story. The story is told out of the facts that are seen as significant and are at our disposal.9

This is not academic hair-splitting, but is directly related to the practice of interpretation. I have tried to show that the idea of "the story" is deficient. But if this deficiency is not recognized, and it is believed that the concept of "the story" does make sense, and that there literally is the story (as opposed to a number of stories), then an interpreter's outlook will be misguided. This is what I believe affected the interpretation at Colonial Williamsburg, and is the source of what From takes to be a very unsatisfactory situation.10 According to him, the interpretation there treated Blacks either as "non-persons" or as "affable 'folks' in the background of what was important—quiet and dutiful, and watched over so that their imprudent ways wouldn't get them into trouble."11

Such an oversight, I submit, is a result of thinking that there is the story of "The Founding Fathers" as white, Anglo-Saxon Protestants. There is, of course, that story, and other stories as well, including the story of the slaves that made Colonial Williamsburg possible, the aboriginal residents of the area, and so on. To think in terms of the

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9 There is a sense in which the facts do dictate the story to be told. We cannot use "non-facts" to make up a story—that is, the story must be factual, nor can there be deliberate oversights, leaving out facts that materially affect the story. That is just intellectual honesty.

10 From, op. cit., pp. 103-107. An editor's note in the volume indicates that a Black (Mr. Ralph W. Ellison) was appointed to the Board of Trustees in March, 1971.

11 Ibid., p. 105.
story limits the interpreter's perspective of the subject matter that he is to interpret. There are many stories of Williamsburg, and different audiences as well.

It must be recognized that there are many instances of story-line interpretation where there is not the constraining idea of "telling the story," and there are many writers who advise us to think in ways that are not likely lead to thinking that there is just one story. For example, Perry writes that, "... the interpretive planner must choose the features to be interpreted. ...,"12 and Sharpe suggests that an area should be inventoried and a theme or themes selected.13 In his chapter on "The Self-Guided Trail" Sharpe reiterates the idea of a theme,14 and the idea is also repeated by Risk.15 A fine example of the idea of thematic interpretation, the telling of several stories, is found in an interpretive plan developed for Malabar Farm State Park (Ohio),16 in which it was determined that there could be three themes: Bromfield as Author, Bromfield as Naturalist, and Bromfield as Farmer. Within these major themes were "short stories" which supported the theme or contributed to it. It is clear that the planners were not mislead by any idea of "the story."

12 Shomon, op. cit., p. 23.
13 Sharpe, op. cit., p. 84.
14 Ibid., pp. 274ff.
15 Ibid., p. 144.
16 Waverka, op. cit.
BIBLIOGRAPHY


