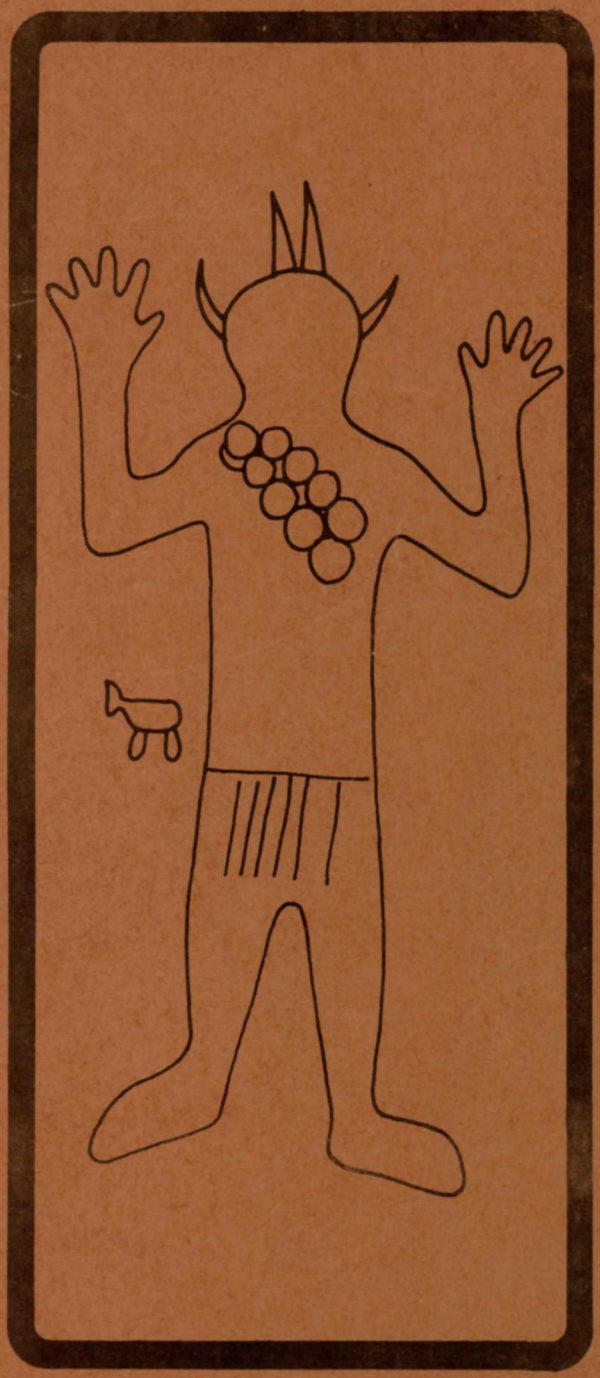

SYMPOSIUM ON DYNAMICS

OF CULTURAL RESOURCE MANAGEMENT

Edited by:

Ray T. Matheny

and

Dale L. Berge

February 1976

ARCHEOLOGICAL REPORT

USDA FOREST SERVICE
SOUTHWESTERN REGION
ALBUQUERQUE, N.M.

NO. 10

SYMPOSIUM ON DYNAMICS OF CULTURAL RESOURCE MANAGEMENT

Papers by:

Ray T. Matheny and Dale L. Berge
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Edited by:

Ray T. Matheny and Dale L. Berge

Report No. 10

USDA Forest Service
Southwestern Region

February, 1976

The papers of this volume were presented at a symposium to the Society for American Archaeology, May 9, 1975, Dallas, Texas. Papers were solicited from those deeply involved in directing the course of archaeological work that is sponsored or affected by regulations of the United States Government. We do not pretend to represent all phases of Government involvement in archaeology, but have attempted to obtain statements from an influential group, who may, ultimately, establish the policies archaeologists will be required to work under.

We have involved not only those in Washington D.C. offices but have gone to a district forester, private industry and, finally, to the public for their reactions to recent legistlation that forcefully involves Federal agencies in administering archaeological resources. We have attempted to provide a crossection of responses to the archaeological legistlative acts and to promote a dialogue between those who will formulate policies and those who must comply with the policies.

An enormous power has been provided Federal agencies in administering archaeological values found on public lands or on private lands that receive public funds. This power is in the form of interpretation of legislative acts governing archaeological resources and in the implementation of these acts through regulations. Professional archaeologists must be a part of the policy making if a viable program is to emerge. It is our purpose to stimulate an interchange of ideas concerning policy, that, ultimately, will dictate the course of archaeological activity in our country. Hopefully, the following papers will serve as catalysts for future dialogue.

Ray T. Matheny
Dale L. Berge
Brigham Young University

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*This paper was presented at the annual meeting of the American Anthropological Association in Mexico City, Nov. 29, 1974.

SOME PROBLEMS PERTAINING TO CULTURAL RESOURCE MANAGEMENT

by Ray T. Matheny and Dale L. Berge

The Legislative Base of Archaeology

We are well launched into an historic phase of the development of American archaeology. This phase is the response of the public, and of its servants, to the pleas of the archaeologists concerning archaeological values. We have won our case before Congress as well as could be expected, but whether we as a profession remain in control of the direction that archaeology will take is not certain. It is doubtful that we adequately comprehend what is currently happening to the archaeology base of our country and what the implications are for its future.

The National Environmental Policy Act (PL91-190, 1969, section 102 (2)(C)) and the Archaeological and Historical Conservation Act (PL93-291, 1974) have plunged us into what Klinger and Baker (1975) have called an "expanding, legislatively rooted, supportive base" for our research. Our concern now centers on the nature of archaeology that can be done under the public laws.

It appears that "academic" archaeology defined by Lipe (Lipe 1974, p. 214), as that kind of research generated by academic problems, will occur rarely in the future. We have outlined to the public a crisis in American archaeology and have implicated ourselves in a man-power shortage situation where practically all professionals and their students will be engaged in complying with Federal Acts. Room for individual research, once so typical of American archaeologists, may scarcely be found. The innovations of the past, that have made American archaeology a world leader in theoretical approaches, may be a phenomenon of the past. What room will there be in current archaeology for the Nelson's, Kroeber's, Rouse's, Brew's, Taylor's, Spaulding's, Binford's, Longacre's, etc., in contract archaeology? This question is an important one requiring some explanation.

The Control of Archaeology

We are concerned about archaeology becoming controlled and channeled by the agencies that pay for the work. For example, we are beginning to feel an uncomfortable pressure from some agencies to conduct rapid and incomplete surveys of land. We know of one instance where only sites of "recreational" value were recorded, and these had to have considerable standing architecture to qualify. In another instance where only a

percentage of the total land to be surveyed was examined, an estimate based on extrapolation served for the remaining unexamined area. Information gained from such surveys is of little value to researchers and is inadequate to satisfy the demands of the public laws. In both cases the pleas of the archaeologist to do more complete work were ignored.

The pressure to conform our work to the demands of funding agencies occurs in other subtle ways. Archaeological data often are difficult to obtain from funding agencies. These agencies often assume guardianship over information where they sometimes require unreasonable effort on the part of the researchers to retrieve it. There are current cases where students in writing theses have been unable to obtain existing data from funding agencies. The agencies have not had much experience in data storage and retrieval and sometimes simply do not know how to find reports filed within their own system. Other cases center around the difficulty of obtaining information without formal review by the agency which is exercising its guardianship. The private researcher is finding it increasingly difficult to do his work when he is not associated with an institution. On the other hand, some institutions are so badly organized that one is hard pressed to find reports filed in a systematic way, or it is difficult to locate field notes and properly identified artifacts.

Funding agencies in their guardian role are even attempting to review thesis prospectuses before granting "clearance" to the candidate to proceed on research of "their" material. The agency is a steward of antiquities within their jurisdiction for the public, but we feel that it is going too far to dictate to an academic institution what part of the public-protected information can be studied and what can not. We have felt that the spirit of true research can only be carried out in an atmosphere of freedom, where academicians and their students make the decisions on research between themselves.

A problem facing Federal agencies is storage and retrieval of archeological materials. Should the agencies be the receipiants of some but not all archeological materials? The question has arisen whether an agency should take over the task of storing field notes, some artifacts and photographs obtained from excavation or other field activity. The agency is not equiped to handle many artifacts but would likely have capability of storing records. The problem that this split arrangement brings to mind is that future reference or research with materials would be difficult.

This is another case of agencies feeling their way in an expanding program and possibly a reflection of their dissatisfaction with institutions and their ability to properly store and retrieve materials. It is probably not a good idea for Federal agencies to get into the storage business.

Another form of pressure that tends to mold our work is the play-off of institutions and private contractors against each other by funding agencies. We as a profession have agreed among ourselves not to bid competitively on archaeological jobs. The reasons are many and well founded on a professional basis. Despite our word to each other, funding agencies have drawn us into a kind of bidding system in devious ways by: (1) sending a letter asking for a proposal to salvage an archaeological site for a fixed amount, (2) carrying on an extensive communication with several institutions or private contractors simultaneously for the same archaeological job without informing the institutions of the competitive circumstances. This device has been a painful experience for those who vowed not to let competitive bids. For example, one institution was led on for months about a contract to do survey and salvage on a large tract of arid land in preparation of a power plant location. Personnel were chosen, equipment and supplies allotted for a specific block of time, all planned from a limited base. Much to the shock of the institution, the contract was awarded to a private firm that drastically "underbid" the institution. The institution in its experience in the area to be worked, was calculating a sound $3.00 per acre in its preparations, whereas the inexperienced private firm had bid considerable less than $1.00 per acre. It was a case of rigidness of the funding agency that has an in-house rule which specifies that bidding by more than one competitor must be done when the sum of the project is over $2,500. The underhanded factor was that the funding agency repeatedly said that this was a no bid situation for the institution.

These practices, and others, are shortchanging our nation, and clearly violate the spirit of the laws we have worked so hard to obtain.

We follow Klinger and Baker when they say that contractual work on a competitive basis fosters inadequate investigations and tends to undermine science.

Institutions are not structured to be in the competitive bidding game. They are not taking the required 30% plus profits to absorb bid failure contingencies. Professionals have talked about the "crisis" in archaeology and how precious their time and few resources are to them. To have to spend time researching and writing competetive bids is a poor use of a limited resource.

Guidelines to Acceptable Work

Miller (1974) provides us with some practical guidelines that are used for contractual work within U.S. Forests Service lands of California.

He suggests specifications be provided by the institution doing work to include: (1) a research bias, (2) field methods and techniques or research design, (3) laboratory methods, and (4) suggestions for maximum protection of the archaeological resources. Scovill, Gordon, and Anderson (1972) have suggested guidelines for environmental impact statements concerning archaeolgical resources under the jurisdiction of the National Park Service. The considerations here are broad in scope and require precise statements of the archaeological resource. It is obvious from the above authors that a full-fledged scientifically oriented archaeological approach is required that includes professionalism from field work through the writing stage. There seems to be little room in their guidelines for competitive bidding between dubious contractors for the cheapest price for a professionally required job. Bidding for the cheapest way is a quality-eroding factor that would be best to avoid.

Perhaps the means whereby problems above may be circumscribed is through certification or registration of archaeologists and the development of standards discussed by McGimsey (1974), and Thompson (1974). Federal agencies or other funding agencies will dictate standards and procedures to us unless we, as professionals seize control of the situation.

What we are saying is that research will be channeled by the requirements of the funding agencies and that our research will be of a different nature than before. This may be a refreshing turn in research or it could lead to a kind of humdrum archaeology serving a mechanistic role for Federal agencies and industry. How our research turns out is entirely up to us. We are probably clever enough to turn contractual archaeology into a vigoruos discipline, but it will require a reorientation of research design.

It is not likely that standard approaches to archaeological problems will be overly useful in the new phase of American archaeology. The research designs can include far more comparative material than ever before. Also, different kinds of comparisons can be made. We expect that research designs can be developed better because a far greater range of knowledge can be drawn upon for their conceptualization.

To insist that a well developed research design be organized before a crew does any salvage or survey seems premature to us. After all a research design consists of a proposition or series of propositions and other facts assembled to provide an overview of investigation that will elucidate on a particular question. If work is being done where little or no previous work has been done, then what hypotheses apply? We feel that what many people have called research designs are work strategies and that testing of hypotheses are more on the level of examining propositions.

Conservation of Resources

We subscribe to conservation of archaeological materials as outlined by Lipe (1974). We are convinced that excavation of sites often could and should receive alternative treatment. Also, a conservation program for archaeological resources should be uppermost in our minds when dealing with funding agencies. Our input into archaeological programs is essential if we want to be influential in directing the course of American archaeology.

We are discouraged that some archaeologists have not followed a conservation view in their work. Some are prone to require salvage work far beyond what is prudent. For example, on pipeline and powerline surveys and salvage work, some Federal agencies and some archaeologists have required extensive work be done at appreciable distances away from the actual track of the utility. Sometimes there may be justification for including off track investigations but this cannot be the case every time. Some agencies specify that a blanket distance either side of the utility track be investigated, and even salvaged, under the pretense that the track provides access to vandals.

Rigid blanket requirements do not follow a conservation model. We would suggest flexible programs be followed to meet the exigencies of each problem with the conservation model in mind. If we persist in extending our researches through contractual work, or, public agents extend their individual power to private industry, then industry will turn against us. When we think out the consequences of private industry being coerced into archaeological investigations beyond what is required, we, the consumer of utilities, will pick up the tab. Escalation by flagrant disregard of conservative practices can only lead to poor relations and distrust between archaeologists and the public.

Procedures in Bureaucracy

Some procedures used in dealing with government agencies that we are subjected to are anachronisms of a bygone day. For example, the obtaining of permits is an unreasonable ritual the applicant must go through. Improvements have been made in the past few years with the hiring of archaeologists at zone and district levels to assist in approving applications. Despite this improvement it is not uncommon to wait 6 months and longer for approval or disapproval. Applications are still sent to the Smithsonian Institution as part of the approval ritual for a rubber stamp procedure. At least that is what we are told. We have asked Smithsonian personnel on two occasions to participate in symposia to comment on their role in the permit procedure, but not a word has been obtained.

We suggest that the permit procedure be short cut to a more practical system. Approval on the local level is desired where a field archaeologist or one who is closely associated with actual field conditions and personnel is involved. Reasons for rejection can be corrected more easily with field personnel. Visualize a project geared up to go into the field waiting, days, weeks, and even months for a permit. This is not a silly complaint but a serious impediment to efficient use of archaeologists in our country. A complicated procedure is involved with an application going from the institution requesting a permit to the Department of the Interior, Washington, then to the Smithsonian Institution; back to D.O.I.; then to a district agency in charge of the site; back to D.O.I.; and, finally to the applicant. This complicated procedure sometimes leads to undue delays in issuing permits and there are not infrequent cases of lost applications. We are supposed to be facing up to a crisis in American archaeology, but this inefficient method of handling permits is a "boggle" to say the least.

A problem area here is in competitive bidding. Several private contractors and/or institutions may apply for a permit for the same job. Since permits take so long to obtain the first step a bidder takes is to apply for a permit. The Department of the Interior is bogged by requests for permits, that, once issued, can only be used by the successful bidder. We need to find a way around this problem that slows down the system.

Another problem we face is recognition of threatened sites that require additional attention for their preservation. An operational rule with Federal agencies is that the site must be on the National Register to qualify for serious attention. This lack of qualification often causes much delay in getting the necessary assistance to do what is required for the site. Because a site is on the National Register of historic places does not necessarily qualify it for importance or special attention. We who sit on the committees that chose sites for the registry know that some are not so important that they warrant large expenditures. We also know that a site is often chosen for the registry because someone noticed it or that it has some obvious feature, not because of its potential importance. We suggest that a more flexible program is in order to include sites not on the National Register in protective programs.

Personnel working in Federal agencies will no doubt have grevious complaints about archaeologists and their students. There are problems with the rigid structure of academic institutions, their inadequate research facilities, the poor quality of reports, and many other areas of difficulty. The new phase of our work is sufficiently unfamiliar to everyone, and there are enough new personnel working in institutions and Federal

agencies alike, to result in a state of confusion. We are feeling our way, as it were, into a new state of the art of archaeology on a grand scale.

All is not bad however. There are jobs that are efficiently done in appreciable quantity that will stand as models of excellence. Our work must go on in a positive vein and in the spirit of cooperation between all parties concerned.

Our purpose is to outline a few problem areas in this new phase of American archaeology. We recognize that all parties to this phase are inexperienced and that they tend to view their own areas of responsibility as being more important than others. The new phase calls for new methods for getting our jobs done.

If we remain fixed in our methods, private industry will turn on us and seek other means to get their jobs done. We must be cautious and deal fairly with them and not exploit a circumstance that they do not yet fully understand. Industry will catch on to being pushed around and will respond with powerful lobbies and will employ lawyers to find loopholes in the laws. At the present time industry is in a cooperative mood, and, it is up to the archaeologists to keep it there. The conservative model for archaeology is one that we should follow.

We hope that in the following papers, that sufficient exposure of attitudes, programs, plans, problems, and procedures will be made that will allow us to openly discuss this new phase of American archeology. There must be a forum for the policy makers connected with the Federal agencies and the professional archaeologists who are to put into motion the new programs. The professional input into policy making is essential if any measure of success is to be obtained.

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NATIONAL PARK SERVICE

RESPONSE TO PUBLIC LAW 93-291*

by Rex L. Wilson

As background for my later remarks on the Department of the Interior's response to the Moss-Bennett Bill, and in order to view our current archaeological posture in the proper perspective, I want to briefly review the history of the Interagency Archaeological Salvage Program.

Until May of this year (1974) the Corps of Engineers, the Tennessee Valley Authority, the Bureau of Reclamation and the Soil Conservation Service were the principal Federal agencies involved with the National Park Service in the salvage program. But under the authority of the Reservoir Salvage Act of 1960, funds appropriated for archaeological salvage were limited to water resource developments.

Each year the National Park Service justified its archaeological salvage budget according to the anticipated impact of other Federal agencies' projects on the archaeological resource. With the notable exception of the Bureau of Reclamation and the TVA, other Federal agencies found sufficient reasons for refusing to contribute any significant amounts of money to mitigate the loss of archaeological remains in their projects. Although all Federal agencies were required to accept certain responsibilities for cultural remains in their projects by the National Environmental Policy Act of 1969, and by Executive Order 11593 of May 1971, existing legislation was not widely interpreted to encourage the expenditure of Federal monies for archaeological excavations.

Because there has never been enough money to satisfy archaeological needs in Federal land-altering projects, National Park Service policy in regard to contracts with institutions to carry out archaeological investigations in these projects has been, of necessity, rigidly circumscribed. In general, contracts were let on a priority basis which was dictated by the degree of emergency. Typically, an agreement limited work to the impact area and was negotiated with a cooperating institution only after a project was in an advanced phase and often after construction was already underway.

*Presented at the annual meeting of the American Anthropological Association in Mexico City, Mexico, November 20, 1974, but is included in the Society for American Archaeology symposium held in Dallas, Texas, May 9, 1975.

Generally, we have contracted with institutions that, in our judgment, could perform a particular job for a given amount of money within a limited amount of time. More often than not, contracts were issued to universities that were willing to accommodate a substantially larger workload, curate resultant collections, and which could turn out an acceptable report. This policy, as a practical matter, eliminated many small institutions from consideration.

Until two years ago all contracts were of the fixed-price type. We agreed with the institution on what a project would cost--or on how much work could be accomplished for the amount of money we could provide--and signed agreement. From our standpoint this was a simple and workable system based on mutual trust. But Federal auditors took exception to the practice and directed that we shift to the cost reimbursable contract which we use today and doubtless will continue to use. A cost reimbursable agreement requires that the contracting institution include with its invoices for payment an accounting of its contract related expenditures not to exceed an agreed to amount.

And our policy until very recently was to contract for descriptive site reports with the idea that syntheses could be written after the reservoir or series of reservoirs had filled. Some reports were published and were widely distributed. Others were prepared in typescript and limited to the number of carbon copies that could be passed through an electric typewriter.

I have recently given much thought to the impact Federal archaeological programs have had on directions and method and theory in American archaeology. And while I might discuss this subject at some length, I prefer to say that our programs for the future have been purposely designed to have a greater influence on the direction of American archaeology than ever before.

In recent years the Interagency Archaeological Salvage Program has been administered by the several regional offices of the National Park Service. The Washington Office role was limited to preparing and defending budgets, allocating funds to the field, and providing general policy direction. The Division of Archaeology and Anthropology functioned to handle both intramural and extramural service archaeological program.

As a positive first step toward the clear identification of National Park Service responsibilities for both internal and external archaeological programs, to avoid conflicting budget justifications to the Congress, and, in general to clearly identify appropriations with specific Service responsibilities, the external programs were split off

from the old division and Interagency Archaeological Services came into being. The new division has nothing to do with archaeology within NPS areas, but instead administers three separate but closely related programs of a totally extramural nature:

1). The Antiquities Act Program derives from the Antiquities Act of 1906. Responsibilities assigned to the Secretary of the Interior have been redelegated to the Director, National Park Service. In turn, the Director has designated the Chief, Interagency Archaeological Services Division as Departmental Consulting Archaeologist to carry out the Secretary's responsibilities under the act. Through my office permits are granted for archaeological investigations on all Federal lands except those of the Department of Agriculture and certain lands controlled by the Army.

2). The Executive Order 11593 Consultant Program functions to provide counsel for (a). locating, evaluating and preserving cultural resources on Federal lands, (b). for devising procedures to be applied by Federal agencies to insure that their activities will not inadvertently damage or destroy non-Federal historic properties. In addition, professional counsel is provided to Federal agencies, State, and local governments, on methods and techniques for preserving, improving, restoring, and maintaining historic properties. At present the Service employs three archaeologists to carry out Executive Order responsibilities, two of whom are in the field; one is in Washington.

3). Until this month the Interagency Archaeological Services Division has been responsible for formulation and overview of the nationwide Interagency Archaeological Salvage Program. This included policy direction, professional standards and annual budget allocations to the field. Field administration for many years has been centered in the regional offices of the National Park Service or in the archaeological centers located in Tucson, Arizona; Tallahassee, Florida; and in Lincoln, Nebraska. This arrangement has resulted in several serious problems. Lacking Washington Office experience, most regional administrators were never quite able to view the total program from a national perspective. The program lacked uniformity and there have been numerous instances of substantial disparities from one region to another. Reporting by cooperating institutions was often inconsistent, administrative overhead varied widely from region to region and from institution to institution. Some institutions contributed substantially to contracts while others contributed little or nothing. Programmatic approaches to research for a given project were not encouraged and were, in fact, out of the question.

Largely in response to the vastly increased responsibilities placed upon the Service by the Moss-Bennett legislation and in recognition of the

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Largely in response to the vastly increased responsibilities placed upon the Service by the Moss-Bennett legislation and in recognition of the

tremendously increased potential for the furtherance of American archaeology, we have begun to implement a substantially reorganized Interagency Archaeological Program. The Salvage Program of the past has been characterized by a host of deficiencies which we now recognize and for which we are determined to take immediate steps to correct. I can now report, for the first time in public, on our realigned program and the different directions we are prepared to take.

Because the three programs of which I have spoken are unrelated to any of our internal programs, archaeological or otherwise, we have centralized all of the extramural archaeological programs of the National Park Service in the Office of Archaeology and Historic Preservation, Washington Office. We intend that Washington direction will provide active leadership for viable programs that are truly national in character, and which will be more closely identified with the Nations's historic preservation efforts. We believe they will, as such, be more responsive to the many agencies of both State and Federal Government who are becoming increasingly concerned with their responsibilities for the preservation of cultural resources and to the urgent need of American archaeology. Personnel assigned to these programs in the future will devote their full energies to them.

As some evidence of the new policy directions we intend to pursue, we negotiated an agreement last June with the Society for American Archaeology to solicit discussion and comments on important contemporary archeological issues. Most of you are probably familiar with the topics discussed in the Airlie Seminars and have a general idea of the results.

We are in the process of establishing three field offices--in Atlanta, Denver, and San Francisco, cities chosen in consideration of the heavy concentration of other Federal agencies found there. Staffs of archaeologists in these locations will function completely separate from our regional offices and archaeological centers. These staffs will operate within three large regions whose boundaries have been drawn in consideration of Division and District boundaries of the Corps of Engineers and Bureau of Reclamation. The Atlanta Office will function east of a line drawn from the Great Lakes southward to the Gulf of Mexico. A line drawn along the Continental Divide separates the territories of the Denver and San Francisco Offices.

As soon as feasible we plan to conduct an intensive seminar on modern archaeological method and theory and current directions in American archaeology for National Park Service archaeologists. In this way we hope to make it possible for our people who have not recently been active in research to interact more closely with their colleagues in the profession at large. And all our archaeologists will be strongly

encouraged to keep current with the discipline.

With a further view on keeping current we will, in appropriate circumstances, assign our people to assist in fieldwork being carried out under our contracts. For example, if we transfer archaeologists to a region with which they are unfamiliar, we will plan to provide them with an opportunity to gain first hand knowledge of the new area.

We feel that this aspect of our new program is particularly relevant inasmuch as we will not maintain an in-house research capability. Funds appropriated to the National Park Service by other Federal agencies to the National Park Service under Public Law 93-291 cover administrative costs and contracts only.

Our field staffs will be encouraged to make themselves available to local colleges and universities to assist with seminars, to function as guest lecturers, or to teach classes as appropriate, particularly in public archaeology. Those wishing to enroll for course work will be encouraged to do so. Those aspiring to higher degrees will be given every reasonable opportunity to work toward them. In all cases, our people will be expected to keep academically alive.

We expect our field office staffs to maintain open communication with amateur societies and other cultural resource preservation oriented organizations. They will in all ways contribute as appropriate to public education in the interest of archaeological and historic preservation.

We plan to enter into long-term agreements whenever possible for programmatic research in localities affected by Federal or federally related projects covered by the new authority. To the fullest extent possible we will negotiate agreements designed to yield published reports needed by the scientific community. I expect that we may have seen the last of the descriptive site reports which were quickly assembled in response to urgent emergency situations.

We are exploring ways in which our contract reports can be widely disseminated. My staff and I have already met with representatives of the Society for American Archaeology to discuss the publication of abstracts on a periodic basis.

We also intend to launch what might be thought of as an internship program designed for professional archaeologists oriented toward cultural resource management. Within allowable personnel ceilings and budgets, we plan to offer several temporary appointments for periods not to exceed one year. Those assigned will serve in our field offices and

assist in all aspects of our several programs--liaison with Federal, State, and local agencies; liaison with cooperating institutions in the contract program; review of contract proposals; monitoring fieldwork being carried out under contract or under Antiquities Act permits; critique of reports resulting from compliance with Public Law 93-291. In short, doing everything our permanent people are doing. We expect to recruit aspiring cultural resource managers who are in masters or doctoral programs who plan to return to school to complete their work. Such trainees may later wish to enter Federal Service on a permanent basis or may wish to remain in academia. Perhaps they may do neither. But no matter which direction they move we believe the discipline and the Nation will be ahead. Already we have had applications from several well known and able archaeologists who are teaching. We believe it makes good sense to encourage such people to use their sabbatical leaves in the same kind of temporary appointments in our program.

Many of you are aware that we have been working with the Keeper of the National Register, with the President's Advisory Council on Historic Preservation, and with the Departmental Solicitor in the preparation for the identification and protection of cultural resources under Federal jurisdiction or control, or of resources to be affected by Federal and federally related activities. These procedures will be published soon in the Federal Register for a 30-day review and comment period by any interested parties, subsequent to which they will be published in final form--hopefully early next year.

These procedures introduce little that is new, but go far toward streamlining and stating clearly, to all Federal agencies, what must be done to identify cultural resources, what level of documentation must be attained, what forms of intra-governmental coordination must be conducted, and assuring, more thoroughly than ever before, the conduct of sound, economical, archaeological investigations when necessary to mitigate the effect of site destruction.

We have consulted widely with professional archaeologists, administrators, and lawyers on the suitability of these procedures and will continue to do so as long as opportunity for modification remains. Toward this end, I have asked the Committee for the Recovery of Archaeological Remains to convene early in December to provide us with their views.

I have only briefly outlined some of the new directions we plan to take as we address our expanded responsibilities under Moss-Bennett. To summarize, I will leave you with an observation and a pledge:

The Federal Government now has an unusually fine opportunity to make a solid impact on American archaeology. In Moss-Bennett we have the legislation we have long looked forward to. We fully intend to make the most of it.

HISTORIC PRESERVATION LAWS AND POLICIES: BACKGROUND AND HISTORY

by Roy W. Reaves, III

SALVAGE ARCHAEOLOGY

By the end of World War II, the Army Corps of Engineers and the Bureau of Reclamation had formulated basic plans for the construction of a nationwide reservoir system including most of the major rivers of this country. Their plans carried with them the threat of mass destruction of the Nation's cultural resources. Members of the archaeological community, realizing that the flooding of major river valleys would destroy an extremely high percentage of the basic data of archaeology, began to express professional concern to the Federal agencies, and to actively lobby for the salvage of those remains that would be unavoidably lost.

An ad hoc committee of professional archaeologists made the initial moves to establish salvage archaeology in the post-war era. The National Park Service and the Smithsonian Institution, the agencies principally concerned with cultural resources, became involved in administering the Federal Government's involvement in the salvage program. A memorandum of understanding between the two agencies divided the responsibility for interagency salvage. The Smithsonian ended its direct involvement in the salvage program with the disbanding of the River Basin Surveys in June of 1969, and since that time, the responsibility for administering the program has been solely with the National Park Service (Lehmer 1971:4, Smithsonian Institution 1968:4, Reaves 1974:2).

In 1945, the Committee for the Recovery of Archaeological Remains was formed under the joint sponsorship of the American Anthropological Association, the Society for American Archaeology, and the American Council of Learned Societies. Its purpose was to give independent advice and assistance to Government agencies through the Interagency Archaeological Salvage Program in order to provide an effective program for the salvaging of archaeological remains threatened by Federal programs and activities (National Park Service 1973:ii, 1974: unnumbered).

Until 1950, the salvage program was carried out by establishing a capability within the Smithsonian Institution and by professionals associated with universities, museums, and societies who contributed their time and expenses. After 1950 the contribution of the Nation's scholars was underwritten with funds through contracts administered by the National Park Service (Smithsonian Institution 1968:3, Lehmer 1971:6, Reaves 1974:2).

Before 1947, small sums to carry out salvage work were made available

directly from the construction agencies and were utilized to support the Smithsonian Institution's River Basin Survey. In November of 1947, however, the Bureau of the Budget ruled that construction agencies lacked authority to finance the salvage program. The ruling added that Federal financing of archaeological work on Government-owned land should be requested from Congress pursuant to the Historicl Sites Act of 1935, based on estimates submitted and justified by the U.S. Department of the Interior through its regular budgetary procedures (Lehmer 1971:7, Smithsonian Institution 1968:4, Reaves 1974:3).

Before 1950, the limited funds available did not allow the issuing of contracts to do salvage and any work not done by the Smithsonian Institution required that the institutions doing it provide their own funds. After 1950, the National Park Service began letting contracts with universities and other institutions and appropriations and contracts for salvage work have generally increased from then until the present time (Smithsonian Institution 1969:5).

Universities and other institutions who are the recipients of these contracts have come to depend upon them as a primary funding source for their archaeological research programs. They have worked diligently to achieve increases in funding for salvage archaeology and for expansions in the salvage program. Today salvage archaeology is firmly entrenched as a part of most large-scale projects.

There are many problems, however, with salvage archaeology as it has been done in the past. Primary among these is the failure of the salvage philosophy to consider the conservation of the resource base. A growing number of archaeologists are beginning to cry out for conservation. Lipe (1974:214) stated this growing concern as being the need of following a resource conservation model, under which we would " . . . treat salvage, especially of the emergency kind, as the last resort--to be undertaken only after all other avenues of protecting the resource have failed." The need for this attitude is obvious, we are dealing with a limited non-renewable reource. Salvage should imply that a site <u>is</u> endangered and the data <u>will</u> be lost unless recovery activities precede the development activities.

Why we should worry about what techniques or excuses are used to do archaeology becomes a cogent question. Jennings (1959:681-683) touched the essence of this problem when he wrote of salvage " . . . that the standards of work and excavation technique must be adjusted to the pressure of time." It is extremely difficult to get a truly objective representation of the resources within the limitations of the salvage program. These limitations include at least the exigencies of time, funding, and imminent destruction.

Any indictment of salvage archaeology probably also would list at least the following shortcomings: (1) that the location of emergency salvage is arbitrary with regard to the archaeological problem, (2) that in salvage, the archaeologist is unable to establish his sampling process in terms of what is needed to understand the resource rather than what is needed to satisfy the scope of the project, (3) that the archaeologist must adjust his techniques to the funding available, the time limitations, and the priorities of construction rather than to the resource, (4) that development priorities rather than resource priorities are inserted as the principal concern of the archaeologist involved in these activities, (5) that the archaeologist is unable to apply the most intensive data collection techniques to his studies because of the exigencies of time and funding, and (6) last, but not least, the tendency on the part of the archaeologist to see salvage as a principal funding source for research. Lipe (1974:229) had a better idea when he suggested that salvage should be undertaken " . . . as a last resort, after all reasonable alternatives to destroying the site have been explored and where the value to society of the proposed project clearly exceeds the value of keeping the site or sites intact."

Because of the shortcoming of salvage archeology, as it has been conducted in the past, we must set for ourselves a new imperative for American archaeology. That imperative must be the conservation of our limited resources. Gwinn Vivian (1973:7) wrote, "Americans are becoming increasingly conscious of the necessity to conserve our water, faunal, floral, and mineral resources. A similar concern for past cultural systems is no longer a goal, it also is a necessity."

Reflecting the American citizen's concern with the loss of natural environmental resources, are a number of pieces of Federal and State legislation that have led up to and that illustrate this concern. Likewise, there are a number of pieces of Federal and State legislation as well as an Executive Order which reflect this growing concern and interest with cultural resources. A review at this time of the laws and order on the Federal level that indicate this concern with cultural resources seems to be in order.

America's concern with cultural resources goes back over a century. From rather meager, peripheral beginnings the concern has gradually gained strength and momentum. Following the centennial of our country the efforts to preserve parts of the National patrimony increased. In 1885 through private donations, the Serpent Mound of Ohio was saved. Various members of several scientific expeditions to the American Southwest raised their objection to the wholesale vandalization of the archaeological treasures they saw. They began lobbying for Federal protection for these treasures. Among the examples they used to illustrate the need for preservation was the Casa Grande ruin in southern Arizona. In

1889 Congress added a rider to an appropriation bill authorizing it to be reserved as a national park and authorizing measures to be taken for its preservation. Thus, it became the first site principally reserved by the Federal Government for archaeological values.

Following the act to preserve the Casa Grande, there was continued activitiy toward achieving protection for other resources, and for legal sanctions against despoliation of cultural resources by vandals.

The Antiquities Act of 1906 (34 Stat. 225) partially filled that need by providing for the protection of historic and prehistoricl remains or "any antiquity" on Federal land. It established criminal sanctions for unauthorized destruction or appropriation of antiquities; authorized the President to proclaim National Monuments from the public domain; authorized a permitting program whereby orderly and productive scientific investigations could be carried out on Federal land; and authorized rule-making authority to carry out the intentions of the law.

The passage of the Antiquities Act filled a long-existing need. Cultural resources were still not adequately protected because the fontier attitudes toward private ownership and unlimited resources had not yet evolved to a stage ripe for further progress in cultural resource preservation.

There continued to be interest in cultural resources preservation, however, as shown by references to their protection in peripheral laws. As an example, the National Park Service Organic Act of August 25, 1916, among other provisions, directed that one purpose of the National Park system was to protect historic objects (39 Stat. 535).

In the 1930's, more powers flowed to the Federal Government--more programs were Federally financed--and the great Depression stimulated a quest for job-producing social programs. Under these stimuli the Historic Sites Act of 1935 (49 Stat. 666) was born.

Under the authority of this act, a number of programs such as the Historic American Building Survey, Historic American Engineering Record, and the National Survey of Historic Sites and Buildings came into existence. Many of these were designed to fill the need of creating jobs in this austere period. But they were sound programs and they continue today. A concern for recognizing and commemorating significant parts of the American heritage reflected the further evolution of the cultural resource awareness. Programs establishing National Historic Sites and National Historic Landmarks reflected this evolving awareness.

The act authorized the Secretary of the Interior to take a leadership role in the protection of cultural resources and authorized him to coordinate interagency, interdisciplinary, and intergovernmental efforts for cultural resources preservation. After World War II when the

development of Bureau of Reclamation and Corps of Engineers plans threatened the resources along most major rivers, it was this provision that provided the basis for the Interagency Archaeological Salvage Program.

In 1949, the act creating the National Trust for Historic Preservation 63 Stat. 927) was passed to further the policies of the Historic Sites Act. The act was the first evidence of reawakening interest in the preservation of cultural resources. This reawakening was stimulated by the alarming rate of destruction of such resources caused by renewed development activity following World War II.

This renewed interest was reflected in many places. By 1956 it was obvious that major damage was being done by the upgrading and reconstruction of the Nation's highways. In that year, the Federal-Aid Highway Act of 1956 provided that archaeological and paleontological salvage could take place using highway construction funds where those remains were in the construction zone. In 1958 this act was replaced by the Federal-Aid Highway Act of 1958 (72 Stat. 913) that reiterated the evolving commitment to reduce construction impacts through salvage efforts.

In response to the salvage efforts being carried out in the river basins and the tenuous funding that suffered their existence, a lobby began for more permanent and more adequate funding for the river basin salvage program. The Reservoir Salvage Act of 1960 (74 Stat. 220) was the result. This act provided that the Secretary of the Interior could, with special appropriated funds, provide for the recovery of historical and archaeological data that might be lost as the result of the construction of a reservoir or dam and its attendant facilities and activities. The Reservoir Salvage Act was never fully funded and many resources which came within its purview were lost because the funds were inadequate to meet the needs.

Archaeologists soon realized the inadequacies in funding levels and in the scope of projects that could be funded under these limited authorities. The level of funding was not sufficient to adequately preserve the resources. Attempts were made to introduce new legislation with a broader mandate which could cause salvage to be done and which had a dependable funding source based on the scale of the project causing destruction.

Meanwhile on other fronts, additional steps were taking place. In 1966, two important pieces of legislation were passed. The National Historic Preservation Act of 1966 (80 Stat. 915) declared a national policy of historicl preservation. It placed additional leadership and coordinating responsibility with the Secretary of the Interior and directed that he

expand and maintain a National Register of Historic Places. It created the President's Advisory Council on Historic Preservation and in Section 106 of the act, granted it a commenting and review function whenever properties on the National Register of Historic Places were to be affected by Federal actions.

With the creation and expansion of the President's Advisory Council on Historic Preservation and the National Register of Historic Places, important tools were created to further evolve the cultural resource conservation ethic. These tools demand a second look to assure that feasible and prudent alternatives to site destruction have been explored and reviewed and that unavoidable losses will be mitigated.

Passed on the same day as the Historic Preservation Act was the Department of Transportation Act of 1966 (80 Stat. 931) which placed even stricter requirements on Transportation Department agencies. Section 4(f) of that act provides that the Secretary of Transportation" . . . shall not approve any program or project which requires . . . the use of . . . any land from an historic site . . . unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such . . . historic sites resulting from such use."

Not only did this law require that alternatives be examined, but that all possible planning be accomplished to minimize harm. Further, it forbade the Secretary of Transportation to approve the program or project until such studies and planning had been accomplished.

If one law had to be chosen as having had the greatest impact on the Federal agencies, it would without any doubt be the National Environmental Policy Act of 1969 (83 Stat. 852). This law is most often thought of in terms of the natural environment--air, water, birds, trees, flowers, soil, etc., but the Act also states that it is national policy to "use all practical means . . . to improve and coordinate Federal plans, function, programs, and resources to the end that the Nation may . . . preserve important historical, cultural, and natural aspects of our national heritage . . ." Cultural resources are also a part of the scope of environmental concerns.

The National Environmental Policy Act further directs agencies in their planning activities to develop a statement setting forth: (1) the environmental impact of the proposal, (2) adverse effects that are unavoidable if the proposal is implemented, (3) alternatives to the proposal, (4) the relationship between local short-term uses and the maintenance and enhancement of long-term productivity, and (5) irretrievable and irreversible commitment of resources involved in the proposal. Loss of cultural resources is at very least an irreversible, irretrievable

commitment of those resources.

As archaeologists, our concern must be to ensure that all alternatives to resource destruction are explored, and that decisions to excavate, develop, salvage or destroy are not based solely on narrowly conceived and short-sighted management decisions.

With the passage of the National Environmental Policy Act, most of the basics necessary for cultural resources management were available. They were, however, somewhat chaotic. There was no organization pulling them together in a meaningful way. The Executive Order 11593 of May 13, 1971 served that function.

The Executive Order was passed to further the National Environmental Policy Act, the National Historic Preservation Act, the Historic Sites Act, and the Antiquities Act. By tying together all of these acts and directing Federal agencies to comply with them, a strong conservation policy was accepted as the Federal role. The role of the Secretary of the Interior as the principal executive responsible in cultural resource matters was strengthened.

The Executive Order issued three broad management mandates to Federal agencies: (1) administer cultural resources in agency control in a spirit of stewardship and trusteeship for the future (that is, get in the cultural resources management business), (2) conduct agency operations to maintain, restore, and preserve cultural resources on Federal land, and (3) conduct agency operations in such a way, in consultation with the President's Advisory Council on Historicl Preservation, to assure that agency plans contribute to preservation of non-Federal cultural resources.

The Executive Order then outlined specific responsibilities directing that the base data necessary to meet preservation objectives would be made available. Section 2 of that order has had and will continue to have a great impact on our profession. It directs an inventory and evaluation and nomination to the National Register of cultural resources on Federal lands. Federal agencies are depending on professional archaeologists to fill this need. Archaeologists are thus going to have to become familiar with the laws and order that apply in order to provide data that will be relevant both to archaeological interests and the fulfillment of legal requirements placed on the agencies.

The passage of the Archaeological and Historical Preservation Act of 1974 (P.L. 93-291, Moss-Bennett Bill) brought the conservation requirements of the National Environmental Policy Act and Executive Order into sharper focus to archaeologists engaged in contract archaeology.

Public Law 93-291 was an amendment to the Reservoir Salvage Act of 1960 and essentially expanded the authorities of that act to all Federal pro-

jects resulting in the alteration of terrain. Additionally, the act provided for a funding source relevant to the scope of the project by providing that up to one percent of the project funds could be spent for salvage. Additional authority was granted to the Secretary of the Interior to fund with special appropriations specific kinds of projects deemed to be in the public interest.

The special point to be made is that this is a salvage bill. The implication of salvage is that something is endangered and will be lost unless saved. In light of the National Environmental Policy Act and Executive Order 11593, any such commitment endangering resources can only be made after alternatives to destruction have been explored and after a systematic attempt has been made to reduce the destructive effects of the project on the resource.

The Secretary of the Interior coordinates all Federal survey and recovery activities under the Public Law 93-291 and has delegated this responsibility to the Interagency Archeological Services Division of the Office of Archaeology and Historic Preservation. In administering the act, conservation of the Nation's limited, non-renewable cultural resources must be given our highest priority.

Federal agencies are primarily interested in legal compliance with the legal requirements of the laws and orders that guide their action. Now on the eve of the Nation's Bicentennial, as professional archaeologists, we must use these laws as tools to protect our basic resources and assure that in the future we are not confined to doing archaeological research in a library because the basic resource was lost.

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CULTURAL RESOURCE PLANNING IN FEDERAL PROJECT AND LAND MANAGEMENT ACTIVITIES

By Charles M. McKinney

Today, as our discipline seeks to conserve our remaining resource data base and insure that a significant portion remains for future scholarly research we find ourselves amid a great struggle to achieve a seemingly common mission. In order to achieve these goals we must work within certain strictures often causing undue stress upon objectives as set forth by academia and Federal, State, and local agencies. To fully realize even a partial amount of our goals we must strive to understand the motivations, long-term perspectives and the separate missions of governmental agencies charged with the nationwide management of the historic preservation effort.

It is not enough to survey lands scheduled for construction activities, to locate sites and recommend those which should be saved. It is, however, incumbent upon all archaeologists be they strictly academicians, contract archaeologists, or Federal and State archaeologists to conserve our resource base. Mitigation may take several forms, but the expenditure of manpower, time and precious funds to excavate must be thoroughly thought out. It is the task of all archaeologists, field and managerial, to recommend alternate and less impacting mitigation practices. If we really agree that conservation archaeology is the path to preserve our cultural heritage for the future--and I believe most of us present here do--then necessarily we must work as one, as one discipline with one central mission. No longer can we afford to maintain even a trace of what has become known as the territorial prerogative or operate in an intellectual vacuum. Those days are over notwithstanding historical precedent to the contrary. Of equal importance, no longer can we afford to pick and choose our "leisure" archaeology. Federal policy discourages and may eventually bar all extensive excavations on Federal lands unrelated to construction projects and at sites not endangered by wanton destruction.

The professional archaeologist engaged in field work in the mid 1970's must be wholly cognizant of certain real world facts concerning the control of activities on Federal, State, local government and private lands. He must be responsive to social problems which channel his activities and he must accept the scholarly responsibility of maintaining an ongoing rapport with those persons who occupy such lands. For those of you who are unaware, proposed archaeological investigations on Indian lands do not legally occur without the prior concurrence of local Indian tribal councils. The issue is even more complex and sensitive in Alaska where presently Federal, State, and Indian/Native land allot-

ments are slowly occurring. Soon a large portion of former Federal lands will be allotted to native and village corporations and subsequently to individuals. At that point in time such terrain will cease to be under Federal control and revert to private or corporate ownership. Many archaeologists who have worked in Alaska over several years will suddenly find themselves barred from their primary resource base. today I can assure you that, in general, the rapport between archaeologists working in Alaska and the native corporations is at an alltime low. This attitude, unless grossly reversed will have a significant negative impact upon native/scholar relationships in the immediate future and further impede archaeological research in this sector of America for several years to come.

We are all keenly aware of the separate but orchestrated sequence of events which have led to the current status of the cultural resource management propsective developed by local, State and Federal entities over the past few years. At a point in time not long ago, there existed little in print concerning cultural resource planning. For sixty-nine years Federal statutes have addressed the problems of protection of such resources in one form or another: The Federal Antiquities Act of 1906 (Public Law 59-209) through the Archaeological and Historic Preservation Act of 1974 (Public Law 93-291), and one landmark Presidential Executive Order. In very recent years and particularly over the past several months we have often reflected the importance of cultural resource planning and have conceded that in general the planning factor has received minimal short or long-range attention.

Since April of last year, we have formally as a body of concerned professionals, merged various talents throughout the profession, and pledged our long-range support to a total historic preservation effort, dubbed "conservation archaeology." A major segment of the profession now has coincided its concern and support for the Federal Government's plan for a truly nationwide historic preservation program.

Over the last twelve months coordination between cooperating institutions, State agencies, and agencies of the Federal Government has reached an all time high. Rapidly, most professional archaeologists within the Government, together with those of academia, have realized that if our efforts toward immediate conservation are to be attained, a concerted effort is our only path to a successful management of our remaining resource data base. Steps being taken to realize full coordinative planning are currently seen in the new directions the Interagency Archaeological Program is now taking.

Decision-making at this time, more than ever before, is including all available expertise. You, the practicing field archaeologists, have an opportunity through the provisions of the National Environmental Policy

Act of 1969 to direct the course of events which lead to the conservation of archaeological resources throughout America.

One of the most crucial factors of the planning process is lead time. Most of you present here today have been faced with the alternative of immediate response to mitigation decisions or watch the resource base diminish further. Although you can be certain that the need for quick response will continue, we are now beginning to see an end to the widespread usage of poor planning including insufficient lead time. To this end, cooperation at all levels of Government is achieved for the first time. I believe one of the chief reasons for this close relationship is the infiltration at all levels of Government by archaeologists who are committed to the general goals of the discipline.

Today, more than ever before we are able to mobilize more professionals, with greater lead time, and with greater funding to recover archaeological resources which would otherwise be lost. For sometime now a level of continuity has been sought by the profession. The Interagency Archaeological Program from its inception has operated at a low managerial level due to mediocre funding. Today, with new enabling legislation, surveys are funded through the National Environmental Policy Act and Executive Order 11593 and mitigation occurs through funding provided by the Archaeological and Historic Preservation Act. The load factor as most of you know has grown to near insurmountable proportion. Presently, and for many years past, the contract program has focused upon the nation's major universities with large ongoing graduate program. The results have been encouraging with university and museum programs training large numbers of students and thereby supplying a ready source of manpower to partially compensate for poor lead time. Those expended Federal funds have paid for expanded research facilities, personnel, and have bought vast amounts of capital equipment for ongoing field operations. This will continue in the future to an equal degree in many cases, but soon the scope of the Interagency Archaeological Program will take on another dimension. Beginning fiscal year 1976, educational institutions never before involved in the program which now posses the necessary expertise and support facilities will become active. The opportunity for additional institutions to build new and viable internal programs to meet our national challenge will become a reality. The scope of our survey and mitigation activities necessitate mobilization of all available professional expertise to build ongoing programs for the future. Of equal importance, it is imperative to have field work conducted by locally available scholars whenever possible. In addition, overhead costs will diminish and our chief responsibility to receive more quality and contributive archaeology for the invested funds will have been met. Funds most certainly will continue to be precious and must necessarily be utilized in a responsible fashion to maximize the amount of usuable data without sacrificing quality.

In recent months, it has become increasingly clear to certain agencies of the Federal Government, that in order to achieve maximum use of scarce funds, perhaps contracts for archaeological investigations should be submitted as competitive proposals. Mention of the procurement practice has received some negative and some positive feed-back. Whether or not this will be the course to follow has not been decided completely; however, at this date, it appears that some form of competitive proposal will soon be initiated. It is time for the profession to face up to one basic fact--that archaeology is a business. No matter how we view it, competition between institutions already exists. Institutions routinely engage in competitive bidding and archaeology should not necessarily be an exception. It we are truly sincere about a national historic preservation effort (and the Department of the Interior certainly is) based on the principle of conservation, we must also be conservative in our program planning effort. It boils down to basic economics--no choice is really available. In some areas of the country where the required expertise is strong we can ask who can do what within a given time frame for a specific amount of funds. Like it or not, a product is sought and bought. Along the way funds are utilized to purchase manpower and equipment, but the project's net worth can only be reflected and adequately measured by the quality of its contribution to enhancing man's knowledge of past cultural systems. Whether it be for a survey of $300 for a short-term right-of-way for highway construction, or a major early man excavation in excess of $100,000 or more; the product is the objective and we cannot lose sight of this fact. Too long have we neglected the final report. Full peer review and dissemination are essential to the long-term success of our mutual commitments to the conservation ethic. The quality of contract reports will most certainly reach a new level of acceptability within the ensuing months and years ahead.

With the above in mind, with full utilization of our nation's professionals, focused upon the great challenge of mitigation and archaeological inventories, contracts for archaeological excavations on public lands which are unrelated to construction programs, or do not otherwise impose a threat to a site's integrity, shall be reduced. In short, the Department of the Interior's policy will restrict archaeological investigations designed for purely academic research without sound research plans. Surely, all can appreciate the need for this action. There exists more than enough work for the conservation archaeologist. He need not utilize manpower and scarce funds to excavate a site on Federal lands not endangered when nearby another site awaits timely mitigation. The work load is certainly available and our only real cause for alarm rests in securing enough qualified field professionals to meet the challenge.

The Federal Antiquities Act permits issued to educational and scientific institutions to enable archaeological excavations to occur at sites not

endangered will not routinely be issued in the near future. Policies change over time and to meet the Federal Government's responsibility to preserve sites, it is desired to turn to rescue archaeology and to reaffirm our conviction that salvage archaeology need not be detrimental to the goals of the discipline, or compromising to one professional ethic. The Interagency Archaeological Program is alive and functioning. The new program now means time to develop viable scopes of work, time for scholarly investigations, time to develop proposal, time to test hypotheses, and time to make significant contributions to the archaeological record. The connotation of rip it out of the ground ahead of the bulldozer is no longer valid. Soon single contracts in excess of $100,000 will be left for periods spaning several years. Seventy-five percent of the total will be available immediately and usable funds for project mitigating measures and the remaining twenty-five percent payable upon receipt of a quality report meeting professional standards currently being developed. The percentages are not new but the contract amounts are certainly encouraging for long-range mitigation efforts. As we all know, all the legislative mandates enacted will not have total protection for archaeological resources; in fact we cannot fool ourselves into thinking that we can protect our complete resource base from destruction. The only real path to conservation is through public education. I can report today that the Department of the Interior has taken the initiative to begin a public awareness program for cultural and natural resources similar to the general ecology program which began several years ago. The influence of the mass media instills ideals. It is time for a change in values toward cultural resources. It will take much time but within the coming years we will see a change from exploitation to conservation.

As most here today, know the procedures and guidelines for the implementation and execution of the Archaeological and Historic Preservation Act of 1974 are presently undergoing final formulation. The first step toward operational implementation has been initiated. We have realigned the Interagency Archaeological Program to reflect its nationwide character. On April 26 of this year, the Denver Field Office of the Interagency Archaeological Services Division/Office of the Archaeology and Historic Preservation became an operative extension of the Washington Office. On May 19 the Atlanta Field Office will become functional and on June 8 the San Francisco Field Office will complete the realignment process. Separation from the National Park Service's internal park programs has been a lengthy process consuming considerable time, far greater than envisioned from the onset in October 1973. Procedurally, during this interim period, prior to formal policy change, certain clarification of policy must be discussed. First, a misconception of the intent of the act itself (P.L. 93291) has not received full attention. I refer here to the belief by some who interpret this legislation as providing funds for NEPA studies that require archaeological inventories. No appropriated funds under this authority may be expended for projects to provide data

for environmental impact statements. This legislation provides funds only for the mitigation of cultural resources threatened by Federal construction programs, and federally assisted projects and for those activities after the planning phase has been completed. Once the project has been identified by an agency, a decision must ultimately be made by that agency on whether or not to transfer up to onepercent of the project's total cost to the Secretary of the Interior/ Office of Archaeology and Historic Preservation or to elect to utilize up to one percent of their funds for mitigation by direct contracting. If the funds are transferred to Interior, the Office of Archaeology and Historic Preservation/Interagency Archaeological Services determines the scope of work, and executes a contract with a selected institution. Procedures for institutional contract compliance are well known and are currently undergiong close scrutiny in terms of reporting, overhead, and most importantly quality. We have realized for a long time that we cannot save every site or even retrieve a representative sample from each site. What we can do through enabling legislative mandates, and professional responsiveness, is to assure that each segment of cultural data recovered is meaningful and truly warrants our attention.

Today, the bulk of our archaeological resources in the Western United States are located on National Resource Lands owned and controlled by the Department of the Interior and administered by the Bureau of Land Management. The remaining portion of Federal lands are largely administered by the Bureau of Reclamation, the U.S. Fish and Wildlife Service, the National Park Service, the National Forest Service, and the Departments of Army, Navy, and Air Force. These agencies are directly charged with the awesome task of controlling activities on multiple-use land. The so-called "BLM Organic Act" formally referenced as the National Resource Lands Management Act, would if enacted, in addition to providing for the general management, protection, and development of national resource lands, also provide funding for the protection of our resources in the form of additional security patrols. This Bureau of the Federal Government, unlike the National Park Service, the U.S. Fish and Wildlife Service, the National Forest Service, and other land managing agencies, presently possesses no direct authority to enforce the Federal Antiquities Act of 1906. The NRL Management Act has as its chief intent and purpose, to be the modern statutory base for the management of national resource lands, lands which comprise nearly two-thirds of all Federal land and approximately one-fifth of our Nation's total land base plus the Federal seabed. Most importantly for us here today, this legislation will provide additional protection of our dwindling resources and enhance the Federal Government's ability to provide stronger access controls on another large portion of the public domain. On behalf of the Department of the Interior, I urge each of you here today to support related bills presently before Congress. The profession can only gain by retarding the destruction of archaeological materials by those who seek financial gain through exploitation, and

protect these fragile resources from the poorly trained "archaeologist" and the hands of vandals.

For a considerable length of time, the Department of the Interior, acting as the Nation's lead agency for historic preservation, has recognized a great need to upgrade the quality and motivation of field investigations to avoid the syndrome to excavate for its own sake. Such activities are diametrically opposed to the spirit and intent of America's historic preservation thrust. We must shift our personal research interests and focus our strength and monetary resources upon those sites actually endangered. Again, we must face facts, we cannot prevent the destruction of all sites everywhere. But we can centralize our energies upon those in most immediate danger. A great deal of the indirect destruction in the past and present exists because we have only recently faced up to the problem of defining professionalism. Fortunately, regardless of motivation most of us keenly realize that a registry of archaeologists or at least a consenus of what constitutes professionalism in the field of archaeology is urgently needed. Unregulated and professionally non-sanctioned archaeological investigations are increasing at an alarming rate. The Federal Antiquities Act of 1906 is a viable management tool in itself but only in recent years have the provisions of this act become an advantageous deterrent to unregulated archaeological investigations. The act possesses deficiencies long recognized such as inadequate criminal sanctions. Increasing the fine and imprisonment dimensions are not simply accomplished through Secretarial rule or by revising the Uniform Rules and Regulations. Such changes can only be made by congressional action.

Many of you here today are somewhat familiar with the United States v. Diaz case which created a great stir several months ago. Without going into the details of this challenge to the authority of the act, just let me say at this time that although the ninth circuit court found the act "fatally vague" this did not and has not affected the authority and enforcement of the act. However, it has forced the issue of clarifying and defining "an object of antiquity." On April 15 representatives of the Secretaries of Interior, Agriculture, Defense, and the Smithsonian Institution convened to determine and agree upon a clear definition of what constitutes an object of antiquity and to make other minor to significant changes in the Uniform Rules and Regulations. Within the coming months, this definition will appear in the "Federal Register" for a thirty day commenting period. After consideration of comments, it subsequently will be codified into the Code of Federal Regulations. On the surface this action may seem rather insignificant procedurally, but I can assure that this action will prevent cases such as Diaz from being prosecuted under the Antiquities Act. Moreover, it is important because our entire historic preservation legislative history is based upon this cornerstone of protective law. Each of our laws stand alone, but the

intent of the Antiquities Act has far reaching ramifications upon our entire historic preservation effort. It is the base from which we ultimately return for explanation and national intent. Equally important, it provides the procedural apparatus for most investigations occurring on Federal lands not authorized by Public Law 93291. In this procedure, the permit program allows for professional review of all such planned activities by land managing agencies, the Office of the Departmental Consulting Archaeologist, the Smithsonian Institution, and other members of the profession outside the government. It also provides another incentive for land managing agencies to continue compliance with Executive Order 11593 and provides yet another vehicle toward the development of comprehensive State historic preservation planning. Ninety-two percent of all permits issued today are for survey investigations to identify archaeological and paleontological sites and not for excavation. Today, over sixty percent of all permits are a direct result of construction rights-of-way coupled to NEPA requirements and the resultant date are utilized to compile timely environmental statements.

Unless a site's integrity is threatened, we should regard such sites as data in the bank to be expended when and if our present challenge is fully met or at least under greater control. The present threat of wholesale destruction will not always exist. Of course, we may not see the end in our own time, but our commitment to the future or archaeological inquiry has dictated our present conservation ethic. Our commitment will in no way impede archaeological inquiry, but only alter our scope of inquiry and redirect our energies toward the immediate problems of national development and enable mature professional decision-making to occur in opposition to personal research interests without ethical compromise.

In brief, if we are absolutely serious concerning the spirit of conservation, it cannot be partial -- it must be a total commitment. The necessity of the conservation ethic has taken many years to reach outside the Federal land managing system. However, mutual support and displayed professionalism by archaeologists within and without the government in the most recent past is rewarding. Be assured, we have only taken the first step. Recognizing professionalism will bring us even closer to our mutual goals. This coupled with sound historic preservation procedures for the protection of historic properties, peer review, and a general commitment to engage in contract archaeology for its research potential under all recovery conditions in face of adverse funding priorities will enable us to state for the first time that we are truly involved in conservation archaeology.

It is only fitting that on the eve of National Historic Preservation Week that we've affirmed our pledge of exactly one year ago to conserve our resource base in face of development at all costs. The Federal

Government's dual responsibility to preservation and the development of our energy resources need not be a compromise either. Furthermore, our objectives and planning procedures must instill cooperation among industry and the profession to minimize any form of compromise.

PROBLEMS IN RESOURCE MANAGEMENT

by Roy S. Verner

The National Historic Preservation Act, The Archaeological and Historical Conservation Act, and Executive Order 11593 require more intensive consideration of historic and archaeological resources in land management programs than has ever been required in the past. Because these resources are non-renewable this focus of attention is especially appropriate, as the resource base is diminishing with rapidly expanding land development programs. Land managers are actively involved with these programs and are becoming involved with the historical and archaeological resources.

The land manager will, however, face problems in the management of these resources. These problems can be broadly categorized as lack of archaeological background and information, personnel, financing, impacts on projects and programs, interpretation of terminology, time factors, vandalism, and reports. All of these items are closely interrelated and it is often difficult to separate one from the other. Each of these will be discussed as they relate to the land manager.

The land manager generally lacks formal education in archaeology. Without it he may find it difficult to recognize the resource or perceive its value. Without some perception of value it would be difficult at best to give adequate consideration to the resource. The expansion of curricula for land managers to include some basic anthropology-archaeology would be very helpful. In-service training programs could be provided by archaeologists for current personnel. Conversely the archaeologist also may face a problem in educational background but in a land management sense. Some basic land management training in the archaeologists' curricula could be helpful.

The manager is also faced with a general lack of information about the archaeological and historic resources on his area of responsibility; and with current projects and programs finds himself with a backlog of data-gathering to accomplish. Inventories are essential to the manager. He must know as a minimum where the resource is located, how much he has and the quality of these resources.

His first priority for inventory will probably involve immediate programs on a "project by project" approach. This has drawbacks in that it is a "spot fire" situation, lacks continuity and archaeologically may not provide a firm base for conclusions. It is in a sense a protection approach, which is all right within itself, but it fails to provide a firm base for program definition. In some areas of low site density, or significance, this approach may be all that is needed. In others, with high site density, or significance, the "project by project" approach

must be coupled with a systematic intensive survey on a land area basis. The first priority will be given to those areas suitable for land development. This systematic approach will be necessary if long range management programs are going to be continued on these areas.

Over the past several years we have conducted a number of intensive archaeological surveys on the Monticello District of the Manti-LaSal National Forest in southeastern Utah. The intent of these surveys is twofold: to begin data gathering towards the development of a long range archaeological management program, and to locate archaeological resources ahead of other resource development programs such as timber harvest or pinyon-juniper chaining.

We have proposed projects on some of these surveyed areas, but on returning to locate the inventoried sites and apply our proposed coordination or mitigation measures we have encountered two major problems. These are the relocation of sites and the finding of new sites.

The relocation of sites is tied directly to the field notes taken by the recorder and the accuracy of the map or aerial photo location. The site recorder can be most helpful with just a few notes about the general characteristics of the site area. These comments must reach the manager in their original form or they will lose their value. The interpretation of the aerial photos is the prime factor to accurate site location and this takes a high degree of skill in the use of aerial photos. I consider aerial photos as the basic field tool in surveys rather than topographic maps, because the land manager will be deeply involved in relocating sites after any given survey to determine and mitigate conflict with other programs. Aerial photos provide greater precision especially on areas of low relief or high site density. Also, photo data can be photogrammetrically transferred to a map base with extreme accuracy but map data cannot always be transferred to aerial photos. If formal training in photogrammetry is not a requirment of your curricula I certainly recommend it for consideration.

While relocating sites for specific projects we have also found additional sites. There were not a large number of these nor were they a high percentage of those discovered in the initial survey. They were, however, significant in that they were readily observable and in the prime developmental areas. One can speculate as to the reasons why they were overlooked, but the point is that team control broke down and the areas just weren't covered. Intensive survey demands intensive control which should be predetermined with safeguards to be sure it happens. One way of insuring control is by subdividing the total survey area into small, workable components using topographic and man made features. These areas can be further subdivided by string lining which has proven very satisfactory on other projects requiring intensive coverage, such

as insect control where every tree must be treated.

To accomplish these inventories and follow-up we will need trained people. We currently do not have enough archaeologists within the Forest Service to accomplish our surveys, so we will need to rely quite heavily on other sources to get the job done. This may include contracting with either consultants or colleges and universities. It could include seasonal employment of archaeology students and staff.

Financing has been a big problem in the past as Congress has not appropriated money specifically for archaeology. The Archaeological and Historical Conservation Act (PL-93-291) authorizes the use of project funds to carry out the purposes of that Act, including recovery, protection, and preservation of data, (including preliminary survey, or other investigation as needed, and analysis and publication of the reports). These funds will have to be allocated by priority or we may continue to have some problems. Inventories and consultation with the President's Advisory Council on Historic Preservation will be our first priorities in order to meet project needs and legislative requirements. This means other needed programs such as stabilization and interpretation may be delayed until we catch up on our backlog of inventory.

With this backlog and the immediate need for compliance with legislation, managers will face some impacts on current projects and long range programs. Inventories and the consultation process take time. This may result in some project delays. As our information increases and reviews get plugged into long range planning, this impact will diminish for we can complete our consultation ahead of financing and project dates. For now, though, a delay could result in a loss of dollars as we are tied to a fiscal year base and generally funds cannot be carried over to another fiscal year. We also face time factors in the preparation, advertisement and award of contracts. Delay could place us in a position of not being able to meet these time factors and award a contract before the end of the fiscal year. In some cases these situations may be alleviated by shifting to other like programs in areas without archaeological values to manage.

Some projects will have to be modified to coordinate or mitigate the impact on archaeological resources. Project modificaiton may take many forms and is not a new thing nor is it necessarily negative. It may alter the size and design of a project which may affect productivity. Generally the immpact will be negligible and acceptable. However, if it is not negligible and leads to very low productivity, or negative cost benefit ratios the project may have to be cancelled. An example might be a chaining project where site avoidance significantly cuts down the forage production and raises treatment costs. Rather than cancel the project the manager may consider changes in methodology. In other

words, how will he accomplish the project? As an example, the conversion of pinyon-juniper cover to grassland cover, using an anchor chain, may have an adverse impact if the chain or project equipment crosses directly over a site. In such a case, would burning or hand removal be acceptable alternatives? The degree of adverse impact created by each alternative would have to be determined by further study.

The manager is required to mitigate adverse impact upon archeological resources, but adverse impact has not really been defined. I have visited sites on tour and the group was advised, on a site that had been chained, that no damage had been done. Also, I have been advised that this does have adverse impact. I have been advised that avoidance of a site and preventing direct impact of project equipment has no effect upon the site. My point is, there appears to be considerable difference of opinion and this only serves to confuse the manager. As stated, adverse impact is not really defined. This must be done in qualitative terms if we are to communicate on a common level, and it may not be possible to define this term in its exact sense without detailed studies.

Another term which lacks adequate definition is "significant". We are required to nominate all sites meeting the criteria to the National Register of Historic Places. The criteria provided in the legislation appear to be too broad for field use. What then are the qualitative criteria that make a site "significant"? Surely not all sites are going to be classes as significant as this would only serve to overload the Register and encumber the process. If it is to be meaningful, I believe "significant" needs more adequate definition. With it, managers and archaeologists will have a common understanding. Clear definition of terminology is essential if coordination of archaeology is to be fully accomplished by the manager.

This coordination is interrelated with the method we use to accomplish any particular project such as chaining, railing, discing, spraying, log skidding with crawler tractor vs. rubber tired skidder, etc. How critical are the results of our methods of operation upon any given type of site? Many are obvious but others are subtle, perhaps questionable, as they relate to degree of impact. If it is valid to relate negative effect to the archaeologists' ability to tell or read the story of the affected site, then this becomes an open area for review. A case in point is a study the Forest Service conducted on the impacts of a chaining project on lithic sites. The study has not been completed but tentative conclusions are that there would be less and perhaps acceptable impact if the project were done with snow cover on the ground. The modification then is in the season of application. To fully validate this conclusion, follow-up should be done with snow cover and later salvage to relate the impact to its effect on extraction of scientific data. I hope similar work will be done regarding timber harvest techniques and other range

treatment practices. Archaeology as a discipline is basically research oriented and well equipped to undertake these kinds of studies. If my point is valid then a new aspect of archaeological research awaits to be explored. Through these efforts adverse impact and a range of suitable coordination measures will become more fully defined.

A problem we face together is time. The manager is required to consult with the President's Advisory Council on Historic Preservation for any project which may have an effect on Register properties or on any site with National Register potential. This process takes additional time, which is not critical in itself if adequately programmed. However, I am concerned whether the Council can meet the demands on a centralized basis, or if they will be swamped with requests for consultation as we comply with the legislation. Perhaps a regional approach will be more appropriate in the future.

Permits to conduct archaeological work are another time consuming process often requiring as much as six months to complete. This is too long and I believe the system needs review so the process can be speeded up. Here again the regional approach may be appropriate.

The manager always has faced the problem of vandalism and this seems to be increasing as we get more visitors on our respective lands. Archaeological resources on National Forest system lands vary greatly in density and cultural affiliation, but generally they are rich in that the sites largely have been undisturbed due to relative isolation and a lack of awareness of their existence by the general public. This situation is changing with heavier public usage of these lands and I expect vandalism to become an ever-increasing problem. We could add to this problem if we publicize explicit site locations without first gaining local appreciation and support of the resource. We must also be able to administratively control public use when specific site locations are made known.

The report following any archaeological work is very important to the land manager as a source document for future work. It follows then that reports must be available as soon as possible after field work is completed. On intensive surveys this can be a problem. During the survey large amounts of material may be collected. This has to be analyzed, requiring many hours of laboratory time before the technical report can be completed. What the manager needs initially is a projection of the impacts of his proposed project upon the archaeological resource and how he may mitigate these conflicts. Perhaps then two reports are needed, a resource conflict report to meet the managers immediate need followed by the technical report. Aerial photos with site locations and field notes should be included in the resource conflict report.

Very briefly these are some of the problems facing the land managers.

They are not all inclusive but I believe they are common to both of us and that in time we will work them out.

In conclusion, I visualize archaeology not as a problem but as a challenge--a challenge to the land manager to become acquainted with the resource and to work it into his programs with all other resources.

Also, I visualize resource archaeology as a challenge to the archaeologist -- a new field presenting new opportunities in research, new opportunities for employment and new opportunities to expand the knowledge of this resource.

I appreciate the invitation to participate in your meeting and am hopeful that my comments will help us to meet the challenge ahead.

NATIONAL ENVIRONMENT POLICY ACT AND CULTURAL RESOURCES

by Jack R. Rudy

At the risk of being redundant or repetitive I wish to begin by stating some of what I consider the basic provisions of the National Environmental Policy Act or NEPA (Public Law 91190). NEPA declares it to be the continuing policy of the Federal Government, and in cooperation with State and local government, concerned public, and private organizations

> "to use all practible means and measures . . ., in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." (Sec. 101 (a))

To implement this policy, the act declares that it is "the continuing responsibility" of the Federal Government "to use all practicable means, consistent with other essential considerations of national policy," to improve and coordinate Federal plans, activities, and resources to achieve certain specified ends, among which is a "systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and environmental design arts in planning and decisionmaking which may have an impact on man's environment." All agencies are to identify and develop methods and procedures "which will insure that presently unquantifiable environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations."

NEPA (Sec. 102 (2) (c)) requires each agency to "include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on:

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of

resources which would be involved in the proposed action should it be implemented."

The preparation of a NEPA statement (Environmental Impact Statement) is not and should not be considered an end in itself. The statement should be prepared so that it can be used in a meaningful way in the decision-making process affecting the proposed Federal action. Environmental issues must be considered at every important state in this process, and conflicting factors be resolved repeatedly from project concept to construction.

NEPA recognizes that in order to carry out the policy of the act, "it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy," to "preserve important historic, cultural, and natural aspects of our national heritage," and to "achieve a balance between population and resources use . . ."

What has been found, however, is that many Federal agencies have a difficult time understanding that NEPA directs them to inventory all resources, which includes cultural resources as well as natural resources, within the area of direct and indirect impact of a project. They then must assess the impact of the undertaking on the resources and consider how these impacts might be removed or mitigated.

The Council on Environmental Quality (CEQ), created by NEPA, has identified the Department of the Interior and the Advisory Council on Historic Preservation as having interest in and expertise on cultural resources. And both the CEQ and Advisory Council's guidelines direct agencies to combine compliance with the National Historic Preservation Act of 1966 and Executive Order 11593 with the EIS process where possible.

What does all this mean to archaeologists, and to the Federal establishment? It means that whenever an agency plans or proposes a major Federal action that significantly will affect the environment, adequate consideration must be given by the Agency to the effect the undertaking will have on cultural resources when assessing the total environmental impact under NEPA. The Agency official must ensure that during the planning period an interdisciplinary investigation of environmental values, including cultural resources was performed and that these resources were assessed in terms of the expected impact upon them by the proposed Federal action. Compilation of the supportive data for an assessment is clearly the responsibility of the agency preparing the statement. The depth or scope of the assessment is, of course, proportional to the nature of the possible threats a project or action presents.

Assessment of historic or cultural resources for NEPA purposes involves

consideration of six (6) basic questions that Federal agencies and decision-makers should be able to answer. At the April 1974 "Cultural Resource Management Conference" in Denver, these were expounded by Larry Aten as the "six steps to glory," and constitute what the National Park Service as the Department of the Interior's lead agency on cultural resources looks for in reviewing and commenting on the adequacy of draft and final Environmental Impact Statements. These six steps (or statements) in essence are:

1. Where are the resources?

2. What historic qualities or values, or, if archaeological, what data categories do the located resources contain?

3. How do these identified resources and their qualities relate to the larger cultural setting?

4. What is the impact of the project on the identified cultural setting?

5. What professionaly viable steps might be taken to lessen the loss?

6. What were the data collecting procedures used to support the assessment?

(1) Where are the resources? This is a statement of the kinds of cultural resources and their distribution. It should be derived from evaluation of existing records and data and from reconnaissance surveys and inventories if necessary. Properties included on the National Register of Historic Places must be identified. Properties that have been nominated or determined to be eligible for inclusion in the National Register, including properties under Federal jurisdiction or control that are pursuant to Section 2(a) of Executive Order 11593 must be nominated to the Register, must also be identified. Cultural resources that are located but which are not recommended for inclusion in the National Register should so be identified with a professional judgment as to why they do not meet Register criteria.

(2) What historic qualities or values, or, if archaeological, what data categories do the located resources contain? This should be a statement of the kinds of cultural and historic values known or thought potentially to be present. Here there is an extensive range of possibilities of such values. For example, architectural or construction styles and techniques should be identified; associative values identified (commerce, transportation, political, military history); and deeply stratified archaeological sites. To obtain these kinds of information some form of

testing may very well be required as well as the survey and review of existing information and literature on the area.

(3) How do these identified resources and their qualities relate to a larger cultural setting? This is a statement of the resource(s) relationship to its areal or regional setting and identifies the properties and values in a broader assessment of significance.

(4) What is the impact of the project on the identified cultural resources? This is a statement fully evaluating the effect that loss of all or part of the resource would have upon future investigation or appreciation. This evaluation should follow directly from the considerations of the preceeding points, and should address itself to the careful consideration of adverse effects resulting from:

a. alteration or destruction of all or part of a property,

b. alteration of or isolation from a properties' surrounging environment,

c. the introduction of conditions or elements that are out of character with the property and its setting,

d. the overall cumulative impact upon the property by the proposed action,

e. secondary or indirect impacts from associated activities resulting from the proposed action,

f. the relationship between local short-term uses of the property and its long-term preservation and enhancement, taking into consideration to what extent long-term considerations are foreclosed by the proposed action,

g. and any other irreversible and irretrievable commitments upon the property, recognizing the unique and non-renewable nature of such properties.

Adverse effects upon cultural resources may be and frequently are cumulative; consequently, any impact affecting a cultural resource should be evaluated against the extent to which the resource represents an important aspect of human occupation. Future research seriously could be impaired if the affected property is unique and found only in the impact area. On the other hand, if similar resources are known to lie outside the impact area loss of some or part of the cultural properties in the impact area would not necessarily be considered so great. However, it cannot be overlooked that alteration or destruction of any cultural resource

constitutes an irreversible and irretrievable commitment of the resource and reduces the opportunity for future research or preservation. Every effort should be made to evaluate the effect of the impact in quantitative terms because such evaluation or measurement constitutes a statement of magnitude of loss and is necessary for the proper weighting of cultural resources in the decision making process.

(5) What professionally viable steps might be taken to lessen the loss? This is a statement of professional recommendations for mitigation or the efforts that will be taken to lessen the impact or prevent the loss or intrusion on the cultural resource. There should be as many recommendations for minimizing impact as there are project alternatives because each alternative poses different situations and solutions.

Where cultural resource loss is unavoidable, the statement must explain what measures will be taken to recover archaeological, historical, architectural, technological, ethnological, or other cultural data. The identification, analysis of impact, and recommendations for mitigation are required of a Federal agency for compliance with the "Procedures for the Protection of Historic and Cultural Properties" (i.e., title 36 C.F.R. Part 800), in other words, the Advisory Council on Historic Preservation review prior to implementation of any mitigative action. It is inconceivable however that mitigation would be recommended for any site that would not qualify for the National Register.

(6) What were the data collecting procedures used to support the assessment? This should be a statement describing the methodologies used to gather the data, the published sources, and informants used, and details on which project areas were examined on the ground and by what tenchiques. Maps should be included showing the areas actually inspected and identifying those areas that may have been devoid of sites. Reports prepared by professional consultants should be appended as supporting data. Statements reflecting negative cultural resource findings must be accompanied by supporting information indicating the factual basis for the finding.

It is only fair to say that for any project these questions need to be addressed to one degree or another, but it must be understood that in preparing answers to them the issue of commenting and evaluating the resource and the impact on it is larger and more complex than a statement that the resource exists. The detail of information and depth of evaluation for an environmental statement for a coal stripmining projects would be far more detailed than one relating to the establishment of a wilderness area where, in this latter case, assessment would be principally identification of resources that would be damaged or destroyed because of neglect due to absence of maintenance.

Since an environmental impact statement is an administrative tool for decision-making (not just a justification for a project) any archaeologist that enters into a contract with a Federal agency to prepare a portion of the statement on archaeological resources, should know something about the proposed project. Without an understanding of the proposed project, the archaeologist cannot prepare a valid evaluation from the standpoint of just what the impact of the project might have on the resources found in the area.

To conclude, let me again emphasize that the intent of the National Environmental Policy Act is to provide a factually informed basis for decision-making regarding the advisibility or feasibility of Federal Actions which affect the environment. Hence, substantive data for impact statements which, if acquired in early planning stages for proposed actions, will allow planners and decision-makers to:

(a) consider and evaluate alternatives in project design, such as excluding specific areas from the project or relocating or redesigning the project to avoid cultural resources. It is essential that cultural resources be identified early in the planning state to permit preservation;

(b) consider the cost of adequate studies to mitigate adverse impacts along with other project costs;

(c) have adequate research designs prepared for needed additional studies if the decision is to proceed with the project;

(d) and to program and budget for these studies well ahead of construction schedules.

We can never lose sight of the fact that cultural remains comprise a limited and non-renewable resource base which is constantly diminishing, and any action which reduces this base represents an irreversible and irretrievable commitment of the affected resource. Mitigation studies (or "salvage archaeology" if you wish) do not lessen these irreversible and irretrievable commitments since such study itself constitutes a commitment of the resource.

THE CONCERNS OF INDUSTRY

by K.M. Neuschwander

Introduction

This morning I would like to discuss some of the problems and frustrations confronting industry in the area of providing protection to and preservations for our archaeological heritage. Industry has the responsibility to fulfill the needs of our expanding society, therefore, where industrial action conflicts with cultural values, guidelines need to be established so the impact of these actions can be avoided or mitigated.

In our rapidly changing world, the environmental problems have come into sharper focus over the last decade. This new awareness has raised many new and demanding problems. One of these problems raises the question of how best to preserve for future generations the information contained in the many archaeological and historical sites that still remain and at the same time increase our present knowledge of these past cultures and civilizations. Until very recently the lack of interest, understanding and knowledge has resulted in very little being accomplished in establishing laws and regulations pertaining to the preservation of the resources of these past cultures.

Archaeology has often been something of a stepchild among the sciences, particularly in the area of funding. It is not generally realized that archaeology produces much more than artifacts for museum displays. Much information about the history of disease, or agriculture, animal husbandry, climate, technology, and environment has been developed from archeological studies. Nevertheless, archaeology has seldom been funded to the extent of many other sciences, and only the most dedicated people have braved the adverse economics to enter the field.

Because of adverse economics, the number of professional archaeologists is small, and this creates, or aggravates, a number of problems associated with our fast moving society. The advent of four-wheel drive and all-terrain vehicles has given laymen access to all parts of the country. Site vandalism, or "pothunting", is wide spread, and archaeologists are in a continual, and often losing, race to salvage the informational content of sites before destruction occurs. Rapidly increasing road building, dam construction, and other land-altering activities also add to the burdens of the few archaeologists available.

In the past, industrial development went forward with little concern for the preservation of artifacts and archaeological sites. Now that we are more acutely aware of our past and have resources to conduct reaserch,

the question is how best to proceed with both development and preservation of these past cultural resources enabling us to develop an understanding and knowledge of these cultures.

I will approach one facet of the problem, the impact of construction in the Electrical Power Industry and the problems faced by the archaeologist and industry.

Management personnel in the Electric Power Industry have become increasingly aware of environmental problems over the past 50 to 75 years. The electric utilities have a long history of environmental concern and commitment. You are all aware that the electric utilities operate under the close scrutiny of Federal and State Regulatory Bodies. The primary function of these bodies, historically, has been to oversee the industry in such a way as to act as a substitute for competition. The effect is to provide the most economical electrical power available for public consumption. The responsibility to maintain low rates weighs heavily upon both the utility and the regulator. To remain in a position to make a reasonable rate of return on the monetary commitment, it is necessary that the utility closely scrutinize all expenditures for operations and construction with the intent of getting the maximum value for each dollar committed; this also includes money spent on research projects.

At this time I believe it would be helpful to explore a typical decision making process for an Electric Utility to place in proper perspecitve the process and the time element involved.

During the initial planning phases for a new power plant, the Utility Planning Department has the responsibility to keep the Company management fully aware of the load growth being experienced and prospects for major new loads that could be expected to develop in the near future. Preliminary planning requires constant attention to load growth and changes in the load growth pattern. Normally, load growth planning is done on 5, 10, 15, and 20 year time levels. The planning process for construction starts after load planning indicates a new unit will be needed, usually at the 10 year planning level. Preliminary planning starts with the consideration of all prospective plant sites, considering the availability of fuel, water, transmission line routes, and engineering design parameters that may be unique to a particular site. All sites are considered and evaluated in the site evaluation process to pick the prime site and usually two alternate sites. This evaluation phase may take a year or more. Background environmental studies should start as soon as the prime site selection has been made. The acquisition of water, fuel and land for the plant site must be negotiated early in the planning process. The purchase of the boiler must be committed 5 years in advance of the scheduled roll date, and the turbine approximately 4-1/2 to 5 years in

advance. An engineering firm must then be selected along with the contractor to build the plant. Construction work for site preparation should begin about 4 years before the startup date. In the planning and construction scheduling this doesn't leave much time between the initial decision to build a new plant and the time construction must start. The time interval to conduct extensive field studies or surveys, prepare the necessary permits to proceed with the construction must be carried out between the time the site is chosen and the start of the EIS, usually one or at the most, two years are available.

Historical Development

The historical developments leading up to the present regulations and guidelines should be covered to provide the necessary background covering these legal requirements.

The first general public financial support of archaeological salvage programs came about through the Reservoir Salvage Act of 1960 (P.L. 86-523, 74 Stat. 220), although previous laws had attempted to protect antiquities through penalties for vandalism. These are the Antiquities Act of 1906, P.L. 59-209, 34 Stat. 225: and the Historic Sites Act of 1935, P.L. 74-292, 49 Stat. 666. The national Historic Preservation Act of 1966 (P.L. 89-665, 80 Stat. 915) provided a preservational basis for historical archaeology, but again provided little financial support. The National Environmental Policy Act of 1969, (P.L. 91-190, 83 Stat. 852) provided that potential archaeological impacts of proposed actions be analyzed, but again provided no direct financial suport for either investigation or slavage, and the same is essentially true of Executive Order 11593, "Protection and Enhancement of the Cultural Environment", (May 15, 1971; FR 8921).

With the mandate to protect archaeological resources has arisen several problems. First, there is a shortage of qualified people to conduct the required surveys and/or salvage operations. Second, it is not always clear what must be done to meet the requirements of the various agencies. Third, archaeological boundaries and modern political boundaries do not generally coincide, which sometimes makes for poor coordination of the work. Fourth, there is considerable time delay in getting necessary permits to conduct an archaeological survey. Fifth, the costs of such surveys and salvage must be added to project costs as no federal financing has been provided for in the law.

The inherent nature of archaeological sites poses problems in regard to field work, regardless of circumstances. It is often not appreciated by relic hunters, or, for that matter, by agency managers, that the value of artifacts lies more in their content than in the artifacts themselves, and that a site, once dug, even by a professional archaeologist, is

forever destroyed. It is only to the extent that the information content of the site is converted to published written and photographic records that the destruction is partly mitigated. Vandals destroy the site without records, and almost everything is lost. The archaeologist destroys much of the site, but produces records which preserve much of the information content and preserves major structures, etc. Tomorrow's archaeologist, using more advanced techniques and having a better data base for comparison, could probably produce an even better record, provided the site survived to receive his attention.

Planning the mitigation of archaeological impacts associated with proposed actions requires the balancing of a number of factors, some comments on how decisions can be made, and the problems involved.

Thus, it is possible that poor or mediocre sites might be investigated while more important ones are left to chance, or to the vandals.

Another problem relating to the scarcity of qualified people is in the analysis of data and publication of results. Unless the findings of a site are analyzed and published in a reasonable time frame, the data will be as effectively lost as if the site were vandalized. Yet many busy archaeologists are too involved with surveys and salvage work that adequate analysis and publication lags far behind, and much information is not available to other archaeologists or is in danger of being lost in dusty corners.

The impact of an action on archaeological resources is generally minimized in two ways during the routing of a new transmission line. First, when possible, sites descovered during preliminary surveys are avoided by re-routing. Second, if avoidance is impossible, the sites are salvaged by qualified archaeologists so that the information content is preserved.

The decision to avoid a site or to salvage must be based on the value of the site, the cost and problems of redesigning the project, and the impact that might result by the action. Sometimes both avoidance and salvage are indicated for important sites.

The question often arises as to the extent and necessity of a salvage operation of a site. For example, in the case of road construction or transmission line routing, should only those sites be salvaged which will be disturbed by construction, or should all those within some arbitrary distance be salvaged? Consideration should be given to the importance of the site, its visibility, the cost of salvage, and to the availability of manpower to complete the task, analyze the results and publish reports. Clearly, priorities must be established.

The protection of archaeological resources is a complex and important issue, complicated by a shortage of well-trained people and by a confusing set of priorities. Industrial management would welcome the setting of guidelines for determining what type and degree of survey must be undertaken and how they should be conducted.

An example of a guideline that was written for the National Park Service who have extensive archaeological resources to protect and preserve was realeased on June 12, 1972. It is titled "Guidelines for the Preparations of Statements of Environmental Impact on Archaeological Resources", and was written by Douglas H. Scovill, Garland J. Gordon and Keith M. Anderson of the Arizona Archaeological Center, National Park Service.

An EIS is required where any major Federal action is involved as set forth in the National Environmental Policy Act. Therefore, all Federal actions which might affect archaeological resources requires an analysis of the possible impact involved. In many cases the action is proposed by a private industry which requires some kind of a Federal permit or right-of-way. States often have similar requirements. Most regulations are not as yet specific, and in some cases the agency does not even have an archaeological specialist to help plan such a program. Some agencies are now developing specific guidelines, but often the applicant must use his best judgment in determining what the needs are and the extent of those needs to meet the requirements of the agency or agencies involved.

A frequently used approach is that of utilizing university faculty members to conduct surveys of areas which may be affected. This assures the competence of the investigator, but does not assure an optimal analysis where guidelines have not been promulgated.

While guildelines are often desirable to management people, they may be a handicap to professional workers unless very broadly worded. Procedures which are ideal for one archaeological setting may be completely inappropriate for another. Too rigid guidelines, enforced "across the board" by non-archaeologists, might be worse than none.

A curious conflict arises between the "people's need to know," which requires the publication of environmental impact reports for public review and comment, and the need to protect archaeological, historical, or paleontological sites. If the detailed results of the surveys are published, the vandals have a road map to the sites; if they are not published, it is not entirely certain that the full intent of the law is being upheld. Usually, the broad, summarized results are published, but details of location are provided only to qualified professionals.

The scarcity of qualified archaeologists may cause extensive and costly delays in obtaining permits for certain actions. Then, too, an archaeo-

logist may find himself spending all his time trying to accomplish needed surveys and salvage work on all varieties of sites involved as required by a proposed action, and thereby be restrained from working on sites which might be more productive and more important, but for which funding is not available. Thus this is the type of document that is needed, modified for general industrial guidance for industrial construction projects.

Several constraints must be met in any effective plan:

1. Archaeological information must be recorded and/or preserved. This means investigation and/or protection of the site in order to maximize the recovery and useful dissemination of the information. It also means a reasonable optimization of data gathering, with regard to the trade off between maximum excavation and preservation and maximum analysis, interpretation, and perspective synthesis based on wide-area correlation of available data.

2. Coordination of area operations is needed. A single channel of archaeological authority for a manageable area, such as a state, is needed. This would hopefully expedite necessary planning and permit issuing for archaeology surveys.

3. Since forecasting industrial needs is always difficult, and at the same time, the construction of a large plant may require 5 years or more, and archaeological impacts should be analyzed before construction begins, it is clear that anything which will expedite the process of analysis of impacts would be helpful.

4. The excavation of every camp site is costly and of questionable value. We must develop guidance to determine which sites are significant and plans for excavation should be efficient, workable, economical and scientifically sound.

I hope these suggestion provide points for constructive thought and potential solutions to those problems faced by the archaeologist and industry.

Thank you.

THE PUBLIC AND CULTURAL RESOURCE MANAGEMENT: REACTION AND RESPONSIBILITY

by Hester A. Davis

I was disappointed when I read my abstract. It not only sounded dull, but it said what everyone must know already--that the Great American Public is uninformed, and the responsibility is ours. Not only was I uninspired by the abstract, but I thought that--if I took that tack, the abstract said everything I wanted to say. I analyzed my problem as one of misinterpretation of the title. I needed to decide what public to talk about, and whose reaction and responsibility should be reviewed.

If we speak of "The Public" and mean everyone who is not one of "us", we must speak in such generalities, as in my abstract, as to be useless and possibly meaningless. On the other hand, without much trouble I could list at least 15 different "publics" which might react and to which we might have some responsibilities. In the interest of everyone's sanity, I have chosen two of these "publics" to discuss. Both are reacting to the generalized idea of cultural resource management, and this reaction means responsibilities which we had jolly-well better take seriously.

A thread which will run through all this discussion is the fact that we are no longer an esoteric community who can get away with talking only to the Cabots and the Lodges. Our publics surround us, they are everywhere; if we don't recognize our responsibilities to each of them, however defined, their reactions may well be negative, particularly so far as what we feel are the needs for cultural resource management. That we have a long way to go is witnessed dramatically by the recent TV film entitled "The Runaways" where vandalism of an archaeological site on federal property was condoned if not blatantly encouraged. We are still talking too much to ourselves. What I am trying to say clumsily, has been said with a good deal more flare recently by Donald MacLeod of the Museum of Man in Ontario:

> As a discipline, our scientific art has all the dress appeal of Little Orphan Annie. Deep inside, we realize, is an introspective, sensitive adolescent, full of self doubt and yearning to find herself. And in-between, her legended existence already whispered in many public places where the dead ears of the academician occasionally pass by, is a Raquel Welch ready to burst forth at a moment's notice, with or without any help from the timorous, legitimate archaeological community. We are all privately aware of the lusty fullness of her artifact collections which are roughly fondled by pot-hunting profiteers. We cringe in remorse as she lies naked before resource rapists. We read dirty stories about her on the

> washroom walls of popular misconception, scrawled by clumsy but fervently mystified seekers of fun and truth. Meanwhile, we huddle in a corner and complain to ourselves (MacLeod 1975:57).

However sexist may be the simile, it does get across its point. The "thrill" and "mystery" of archaeology has always had appeal--and this, by and large, is the public image with which we must deal. The public(s) is reacting now (as I will soon point out) and if the lofty Truths and Righteousness of Cultural Resource Management are to endure, we as archaeologists must quickly and effectively channel this reaction into its proper course.

The two publics about which I wish to speak are those represented by State Legislatures, and those represented by Federal Agencies. Looked at one way, of course, this represents just about everybody; and that is in fact, an important point to keep in mind.

McGimsey's 1972 summary of state support for archaeology gave a reasonably gloomy picture. Klinger's 1975 up-date (information to mid-1974) indicates that "between 1970 and mid-1974 . . . twenty state legislatures have passed new antiquities laws; half of these have been enacted since 1973. Eleven states have legislation pending . . ." (Klinger 1975:94). Of those 11 states, four have recently been successful in passage of laws; four others not included in Klinger's summary have also recently passed archaeological legislation. In addition, I know of at least four other states where legislation is now pending. To summarize, since 1973, 29 states have either passed some kind of antiquities or archaeological program laws or such laws are pending. Since 1970, the number is 39 states. In five years then, 78% of the fifty states have passed or are attempting to pass legislation. McGimsey said of the difference between his information for 1958 and 1970 "Progress over the past twelve years has been less spectacular, and in the majority of cases, nonexistent" (McGimsey 1972: 87).

I have no documentation as to how much of this tremendous spurt of legislative activity is the result of professional archaeologists, of state historic preservation programs, or lay archaeologists, or of fortuitous introduction by semi-informed legislators. Each has been involved in one case or another, but whatever the instigation for the legislation, the point I wish to stress is that legislation as a mechanism for protection and preservation has radically increased in the last 5 years. Something is causing this; legislators don't do this if there is a great public outcry against it and they normally won't support such a thing without indication of some public interest in it.

This is a very strong indication of public reaction to the problems of cultural resource management. We can blithly say that the responsi-

bility for seeing that the laws are adhered to is both ours and "the public's", and indeed this is true. But since we are "the experts" the public will be looking to us to see that the stipulations of the laws are carried out. They are also going to expect some kind of return for their support and interest. The hue and cry has risen, the public has reacted to support the legislation, now the archaeologists must live up to those promises. Nothing is protected just by having a law. In addition, laws are being written with protection and control in mind, but without, it seems to me great thought to the realities of the day. Provisions of these laws are often going to be two-edged swords.

Let me give an example. Louisiana has recently passed a strong piece of antiquities legislation, which creates the Louisiana Archaeological Survey and Antiquities Commission. It has provisions for protecting material on state-owned land, and for Commission supervision over what is done on private land. Only one provision will be mentioned here to illustrate my point. This legislation sets up a procedure whereby "archaeological activities on private property must be reported to the Commission at least 90 days in advance to allow commission supervision." This and other provisions are aimed at controlling pothunting. But as the law is written, it presumably applies to all archaeological activity. I envision that archaeologists in Louisiana are going to find themselves between a rock and a hard place when the SCS comes to them requesting a survey and assessment, with a report to be submitted in 60 days. Presumably provisions will be made by the Commission whereby this section of the law will not deter legitimate archaeological endeavors, but it would have been better and probably more understandable to the public if the law had taken this kind of thing into consideration in the first place. Archaeologists are promising that resources are going to be protected, and they must carry through, or the public is (a) going to want to know why they haven't; and/or (b) change the law.

If we look next at federal agencies as a major public, we find there is a reaction to cultural resource management based solely on the already written law. The law says the agencies must have certain kinds of information relative to archaeologic resources available as a part of their planning process. They are expecting archaeologists to provide them with this information, i.e., their reaction to this "management" requirement of the federal law is to get the information in as efficient manner as possible from the experts--a noble endeavor. If they indicate what they want and we sign a contract and then can't or don't comply with the terms of the contract, we not only have a credibility gap with this public, but possibly a legal problem as well. It seems to me to be a rather straightforward responsibility to abide by the terms of a contract. But a more subtle responsibility is that of producing results required by the contract in terms that the agencies paying for the work can understand. The problem seems to boil down to one of communication.

A report to a nonarchaeologically oriented agency needing archaeological information which is full of technical jargon is worthless to them. What happens almost without exception is that the technical information is misinterpreted and misinformation is then promulgated through the agency's reports and decisions are made based on this misinformation. There is no need to sacrifice the worth or detail of archaeological expertise on the altar of mickey-mouse vocabulary or bureaucratic mentality. Is it so difficult to write summaries in simple expository prose? Indeed, if archeology is to be taken into consideration in the decision-making process of government agencies, we must learn to take our "marvellous 200 page research document" (MacLeod 1975:62) and boil it down to ten or 15 pages of pure essence which includes summary, planning directions, and recommendations. This is the most that decision makers will have time to read--it is all they should have to read MacLeod 1975:62). But it must be written in layman's language. To be blunt, I believe that the communication problem on this level may not be because the archaeologist doesn't want to do it, but because we must be retrained--the only archaeological language we ever learned to speak is the technical one. There are very very few good translators amongst us.

But we must translate or the publics will seek others who speak their language. If we don't speak their language, how can we guide their reaction, how can we best benefit from and encourage their support for our programs? Even the term "cultural resource management" seems high toned. If it is difficult to get a dirt farmer to understand that an arrowhead is a resource, how are you going to explain something as abstract as "culture"?

If we may sneak in one more public, let me point out that possibly our best ally, and those from whom we can best learn the language, are the "amateurs," the "avocational" archaeologists. We know they come in all shapes and sizes (as do we ourselves), but what has recently come to my attention is that there are so many of them. The mailing list for the Eastern States Archaeological Federation, for example (which includes just about all amateur societies east of the Mississippi) is over 10,000. That is more than twice the membership of the SAA. If we take the whole country, we are talking about at least 25,000 people. If the Arkansas Society is any example, their numbers are growing daily, and so will their power, if and when they decide to use it.

How many of you have heard of the Shepauq Valley Archaeological Society? It is headquartered in Washington County. In three years this group has raised nearly $400,000, it owns 15 acres of land and has built and staffed a research facility.

The nature, direction, and power of this public reaction must be recognized now. Almost any one of the publics to which I have alluded, and any of

the other 12 that I can think of, actually has a greater potential for effecting cultural resources than do we, the archaeological profession. We are archaeologists; they are legislators, or district engineers, or TV script writers, or landscape architects. The destiny of the country's archaeological resources is in their hands--how can we pretend to "manage" the resources, if we neither speak their language nor translate our ideas into their idiom? They have their own job to do; our responsibility, as I see it, is to channel this massive public reaction by means of increased communication.

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