EXTERNAL FACTORS AND ARCHAEOLOGY [*]

by

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By external factors that affect archaeological research I think of circumstances that constrain in one way or another the nature of the archaeological enterprise by putting limits on access to data and kinds of problems to be studied. Three issues suggest themselves to me in this regard, two of them politically motivated. The first of these, demands for reburial by ethnic or religious groups, I shall discuss from discourse concerning material remains from aboriginal (pre-Colonial) populations in the United States. The second, in my estimation very real but for which I do not know of any literature, concerns what we may call Mainstream Archaeology. By this I mean the set of problems that primarily engage the research interests and direct the attention of archaeologists working in a given country of the world. I suspect that for new nation-states in today's world, governments may have a stake in determining which kind or kinds of research shall receive financial support. In Israel, for example, Biblical Archaeology might constitute Mainstream Archaeology. Such concentration of effort does not preclude other kinds of research but the former are most likely to receive internal government support.

And, finally another consideration we can think of as external to doing archaeology in its broadest sense is the paradigms and theories that may exclude certain kinds of investigations as they emphasize new ones and demote the old, just as the emergence of molecular biology has overshadowed other kinds of once predominant biological research.

One might think of other, political, factors that affect access to data – where and how archaeologists can work. For a time American ethnologists, for example, found it difficult if not impossible to undertake research in Colombia because that government required funding agencies in the United States (primarily affecting grants from the National Science Foundation) to provide financial support for one or more Colombian anthropologists as co-participants in project applications. While this policy was in place the NSF refused to agree to it. It is possible that in some cases the demands of nation-states to retain or have returned any remains of excavations might affect the work of foreign archaeologists, but this is probably of lesser concern. Paleoosteologists, on the other hand, find it difficult to assemble for study in any one center the skeletal remains of early man. Working from casts is not exactly the same thing.

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THE REBURIAL ISSUE

In the early 1970s, American archaeologists, who had for long sought to recover and interpret material evidence of this country's past, began to encounter an obstacle to their research they had heretofore never thought about. And the problem has continued to escalate to the present time. It concerns the demands by Native Americans for the return and reburial of skeletal remains of purported ancestors from museums and research centers where they are curated. The moral and political issues involved are by no means unique to American archaeology. Canadian, Israeli, and Australian archaeologists, among others, are agonizing over similar claims to their data bases, what some consider an indispensable part of their field notes [1]. The American case, however, is distinguished by its complexity – the operation of federal laws and constitutional rights, fifty separate State jurisdictions, the special relation of Native American peoples to the federal government – to identify some of its most prominent features. Furthermore the controversy has generated a large number of articles that argue pro and con over the scientific versus ethnic importance of bones and other grave materials from different perspectives. A central point that emerges from these arguments is : who owns them ? And by implication, who has the right to decide what to do about them ? There are no simple answers to these questions, which go to the heart of how objectively prehistorians may carry on their research [2].

To understand why "Reburial quite obviously threatens the future of American archaeology" (Buikstra 1983) we must first examine the kinds of information that burials provide. Indeed they produce such a diverse and important body of evidence for an analysis of prehistoric and, in the case of skeletal material, of living societies that they may be said to constitute virtually a sub-field of archaeology.

Let us consider first what bio-archaeologists learn from bones and the case for long curation. For this task we have several sources that summarize the rather voluminous literature on topics commonly addressed by human osteologists which are of central concern to the archaeologist (Aleshin 1983; Buikstra 1983; Buikstra and C.C. Gordon 1981; Owsley, Douglas W. 1984; Ubelaker, D.H. 1989; National Museum of Natural History Newsletter for Teachers 1989; Huss-Ashmore, R., A.H. Goodman, and G.J. Armelagos 1982; Larsen, C.S. 1987; and Cheek, A.L. and B.C. Keel 1984). The types of information that can be obtained from human remains briefly fall into the following categories : (1) physical characteristics of the population being studied (e.g. stature and body build); (2) demographic factors, such as sex and age, sex ratios, longevity, death rates, and migration; (3) biological or genetic elements that enable determination of degree of relatedness in given prehistoric populations; (4) pathological evidence that yields information on diseases, accidents and cause of death; (5) diet and nutrition that tell us about quality of life and changes that occur over time, for example, from evolutionary processes associated with the emergence of agriculture as a dominant mode of food production among once food gatherers and hunters; and, finally, (6) mortuary practices that may reveal aspects of e.g. social organization, division of labour, and religious life.

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[1] For the reader's information, I am the only author addressing the issues in this volume who is a social/cultural anthropologist, albeit one with an abiding interest in archaeology. Undertaking this essay provided a welcome opportunity to review and contemplate the debates – and the sources of these debates – over proposed new directions in this field from approximately 1960 to the present. I am especially impressed by the considerable parallel development in this respect with my own field, a not too surprising occurrence, perhaps, given the more broadly anthropological interests of archaeologists during this period.

[2] The fear of some archaeologists extends well beyond that of bioarchaeologists. The return of skeletal remains, they assert, is simply the first demand. Already some Native Americans lay claim on religious grounds to repatriation of artifacts. When burials are encountered in future excavations what role will Native Americans play in supervising the disposition of recovered objects, even of the photographs and notes of the archaeologists *in situ* ? In a few cases this may not be an idle question.

Various authors have illustrated these topics with different case materials. Apart from burial artifacts, genetic features of populations now recoverable from skeletal data may provide evidence of the origins, movements, biological relationships and cultural histories of Native American prehistoric ancestors, for example. Elsewhere, physical evidence from teeth and skulls from prehistoric peoples in Japan and other parts of Asia has helped to resolve conflicting interpretations about the ancestry of contemporary Japanese, their derivation from one or another of two major prehistoric traditions. At the same time it has also clarified the problematic relationship of a numerically small and marginal ethnic group in the island of Hokkaido, the Ainu, to social classes of the dominant population. Whatever their ultimate origins – are they the remnants of an upper paleolithic population that first settled the islands of modern Japan ? – they now appear to have left some of their genes in an earlier day through interbreeding or intermarriage with the Japanese upper classes (Museum of Natural History 1989).

Extrapolating from what we know and continue to learn from bones in living populations has enabled bioarchaeologists to make detailed analyses of diet and nutrition, pathology and behavior (e.g. preparation of food) among prehistoric peoples. Adaptive behavior and nutritional deficiencies are reflected variously in growth curves, bone deformities, reduced amounts of normal bone (osteoporosis), other diagnostic skeletal markers for certain vitamin deficiencies and iron-deficient anemia, dental wear and wear patterns, damage to enamel, and a number of other tooth marks. Certain infections, whose causes may be unknown, also show up in bone. Larsen (1987 : 380-81) comments that a study at Dickson Mounds in Illinois, comparing low intensity agriculturalists, also showed that mean age at death was lower in individuals with infections than those without.

Bones also give both specific and (more often) non-specific infectious diseases, like tuberculosis, endemic syphilis, and yaws. The feedback relation investigators have determined between undernutrition and lowered resistance to infection among living agricultural populations of the Third World (Scrimshaw *et al.* 1968; Taylor 1985) suggests that infection processes we see today are probably the end result of nutritional deprivations experienced in past populations.

Aside from severe trauma, injuries that would be caused by weapons for example, specific causes of death are extremely difficult to determine from skeletal material. On the other hand, life table methods for assessing mortality differences within or between groups can provide evidence for inferring the effects of differential nutritional stress. In another prehistoric Illinois population mortality increased in those age groups predicted to be more mal-nourished. In general osteological reconstructions of diet, demography, growth and disease patterns reveal a good deal about the health costs of increased dependence on agriculture. Elsewhere similar differences are reflected in the quality of life in ancient stratified societies.

From this brief summary of what bioarchaeologists can elicit from prehistoric skeletal remains it is not difficult to understand why they tend to view reburial (and hence the permanent loss of these data) with dismay if not alarm. Some have also addressed the query often made by Native Americans: why must you retain the bones of our ancestors indefinitely in the dust bins of your museums ? Is there not some reasonable period of time for curation and study after which they may be laid to rest in their graves ? Buikstra and Gordon (1981) respond by asking hypothetically what impact reburial would have had on archaeology in archaeology if, say, the issue had occurred in 1952 and a decision at that time specifying reburial were made "after 'complete' study in the fashion of the time". They point out, for example, that archaeologists would have had to forego: (1) attempts to measure status differences and social complexity; (2) benefits of newly refined techniques for estimating age and diagnosing sex for demographic analysis; (3) evidence of juvenile patterns and infant health status that are sensitive indicators of quality of life; (4) genetic data on origins and biological relations of different Native American tribes, based on individual units rather than group averages; (5) commonly unreported remains of e.g. females; and (6) observation of Harris Lines as an indicator of feast-famine cycles or of other environmental themes.

Because the concerns of the time led bioarchaeologists to concentrate on constructing typologies and racial differences they paid scant attention to any of these features that bones can reveal. Since then theoretical interests of archaeologists shifted largely to the study of evolutionary processes and yet other problems in the 1980s to which osteological evidence can make significant contributions as independent tests of interpretations from artifacts alone. Furthermore, in the past few decades technological advances and applications of dietary evidence from bones by paleonutritionists have led to e.g the measurement of protein content and carbon isotopes from hard tissues. We can now measure, for example, the percent of maize in the diet of prehistoric peoples and the effect of diet on skeletal pathology.

The point of all this is simply that new paradigms and directions of research, as well as new and more sophisticated technology continually fuel what can be learned from material remains. In Buistra's view, and that of a number of other archaeologists, these observations argue for indefinite curation rather than a "reasonable period" of, say, one or two years for analysis before reburial. So far as very large existing collections are concerned the opposing argument is that the cost of restudy and the small number of scientists available to do so make it unlikely that any but a very few of these assemblages will ever be subject to review. There is merit to both positions. The advances in reinterpretation and new understandings from re-analyses that have been made, plus the ever likely possibility for the reduction or elimination of ambiguities in the future lend support to long term, if not indefinite curation. On the other hand, in the light of restricted financial support and available manpower, attention must bé paid to the fact that large repositories of skeletal remains may never be studied for these reasons, and suggests that some reasonable compromise should be made on this aspect of the reburial issue.

Archaeologists and museum curators, who either oppose or have strong reservations about reburial in general, also cite demands for the return of artifacts and other recovered materials for reinterrment. In extreme cases they may even request field notes. If the worst case were to prevail, they have argued, archaeology as a discipline would cease to be viable. The fact, is however, that the worst case has not been, and is not likely to be, realized, except possibly on some reservation lands where the tribe has greater control over access to excavations.

The protagonists over conflicts about reburial essentially represent two competing interests; the scientific community of anthropologists, paleo-osteologists and museums, on the one hand,

and the cultural and religious interests of Native Americans, on the other [3]. In their concluding chapter on *Reconstructing Archaeology Today* Shanks and Tilley (1987a : 246) remark in this context that "...the conflicts of concerns between American Indian groups and archaeologists... has its roots no only in the issue of whether or not archaeologists have the right to uncover Indian remains but also in the images created of the constructors of those remains... The white American having dispossessed the indigenous inhabitants of their land and possessions and virtually destroyed their culture now requires that the Indians respect his or her 'right' to reconstruct their past and if this involves the violation of sacred remains the type of empiricist science subscribed to ensures that this action is eminently justifiable... Archaeological discourse may or may not have truth value. It certainly can have power effects operating to reproduce the relationship between the dominant and the dominated in contemporary society. It is this which must be opened to critique." This critique builds upon the proposition that "... there can be no completely objective account of the past. The 'truth' of the past can never be known for certain; objects are locked into their time, archaeologists into theirs" (p. 12). The past, in short, is part of the present in that it is known now, not then, and that archaeologists bring current ideological and conceptual perceptions to bear upon their interpretations of these objects. They are also embedded in their own relations of dominance and subordination, and by insisting upon the pursuit of their own interests they perpetuate the powerlessness of descendants of past peoples.

From these arguments we can conclude that, for the most part, native groups and archaeologists not only have disparate views but have largely talked past one another in terms of their interests over the reburial issue. Archaeologists argue for the value of scientific knowledge, for its usefulness and benefits for mankind generally, as we have summarized above, and have also sought to persuade native peoples of its value to them in seeking to recover the history of their past. In their view archaeologists have the responsibility for tending to the natives'best interests, which would be counteracted by reburial and thereby destruction of the records of the past. Legally they also assert they must attend to and serve the public interest in its broadest sense.

If some archaeologists wonder why native peoples today should be so concerned about the treatment of their deceased ancestors when (1) they have left no record to tell us exactly what meanings the latter ascribed to their practices in the unearthed record and (2) practices themselves have changed over time, one can again take refuge in the above argument. Not only have archaeologists documented changes in native burial practices, e.g. from cremation to burial in central California where the Ohlone Indians now live, but also substantial changes in cultural beliefs and activities are known to have occurred in Europe and North America. The English who once included grave goods in their burial now include none; from uniformly burying their dead they may now cremate them, from burial of the privileged in the church they now bury them outside, and from burial in graveyards within the town they now bury the dead in cemeteries (Hubert 1989 : 134ff.). Similarly R.H. McGuire (1989) summarizes changing practices and beliefs in the New World from the colonial period to the present, and he describes corresponding changes in white attitudes toward the proper treatment of deceased Indians. The questions remains then : if Whites treat their ancestors as well as their recent dead in accordance with beliefs they hold today, why should we expect Native Americans to do otherwise ? What difference does it make that some native peoples in Northwestern Canada once exposed their dead to be consumed by scavenging animals or that others who now bury their dead in cemeteries once practiced cremation ? For Indians today, McGuire asserts, "the degree of intensity of concern certainly varies..., but the sanctity of the grave is clearly of greater religious, emotional and political interest to (them) than Whites", for whom the desire to leave graves undisturbed is a secular concern primarily out of respect for surviving family members. In his view also "the idea of communal ancestral relations being expressed by the Indians is foreign to the American public, who are primarily interested only with their direct blood relatives" whose connections they can document with genealogical evidence. This last point, as we shall see, enters into efforts to adjudicate cases that arise over conflicting claims.

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[3] Neither scientists nor Native Americans uniformly support these contrasting views. Among the latter there are some trained as archaeologists, who take the scientists' position ; certain tribes, like the Seminoles in Florida, have also stated they do not care about skeletal remains. Among the former there are archaeologists who support a moral argument for reburial over their presumed self-interest.

On other grounds certain Native Americans may not see any particular value to them of the archaeologists' labors. Those who are most nativistic do not share the westerner's concern for history and comment that they learn what they want or need from the past through accounts by their relatives and ancestors. The archaeologist's interpretations of the past may be ideologically motivated in ways that do not necessarily serve the native's concerns for his past. Other natives complain that archaeologists have compromised their claim to scientific value of future digs by the indefinite storage of past excavated remains. These are the emotionally supported views that partisans for each position are loath to relinquish. Having said this, we need to bear in mind that as I write an increasing number of both groups find themselves somewhere between these polar positions. Indeed a few archaeologists, overwhelmed by the guilt they have come to feel about the past treatment of American natives, have converted to the latter's position, and seem to be paralyzed from deciding how they should carry on their professional activities (see, for example, Zimmerman 1989). On the other side there are some young Native Americans who have become professional archaeologists, and in this role tend to support their scientific concerns but not everywhere without mixed feelings (e.g. Jo Mangi 1989). In the main, however, the dispute, while often heated, has not reached the emotional level of, say, that over the abortion issue with its polarized, no-compromise positions that will only respond to legislation or the courts.

A question remains : why now ? Why did groups not make claims much earlier, or even in the 1960s ? The answer probably lies in two aspects of recent American history. The first derives from those forces that unleashed struggles for ethnic rights and identities, especially the Black Civil Rights Movement that culminated in far-reaching legislation in the mid-1960s. This dramatic struggle subsequently led other ethnic groups to seek greater empowerment, political in their own right, and a discrediting of assimilationist policies. Cultural pluralism has become both a fact and a value that should move in tandem with a variety of means for pursuing personal and economic well-being.

Second, as the most dispossessed and culturally degraded peoples after Blacks, Native Americans in recent times have found leadership voices among the newest generations. Some with higher education and knowledge of rights and opportunities through access to dominant institutions have successfully introduced entrepreneurial activities with government support. Others as professionally trained lawyers have come to serve their tribes, often with White colleagues, in the protection and pursuit of rights. Reburial is a convenient symbolic issue that, like resource disputes, lends itself to demands for reappropriation of cultural and political rights that for long had been depreciated or ignored. By continuing demands for reburial, sometimes winning them or forcing some acceptable compromises, they draw national attention to their rightful indignation over generations of maltreatment that might serve as as springboard for political action in other directions.

Patricia Robertone (1989) has argued very recently that the archaeology of the colonial period, examined more from the material remains of native peoples rather than from the everyday life of colonists in the contact equation, would reveal resistance against domination as earlier as the mid-17th century in New England. She bases her conclusion on a re-examination of remains from two excavated sites of Narragansett Indian, paying particular attention to quantities of wampum grave offerings. To her they suggest that by taking "... quantities of wampum demanded as tribute by the colonial government out of circulation" [it was] "... an unwritten statement of political resistance (and) symbolically upheld Narragansett tribal authority" (Rubertone : 42). If further investigations from this perspective were to confirm her views they would challenge the stereotyped rationalizations in support of continuing territorial expansion that assumed acculturation of native peoples without struggle. This historical perspective suggests that the current forms of protest by Native Americans are expressions in another guise of frustrations over abuses, injustices, and unequal treatment thrust upon them over centuries. They follow upon prior guerilla warfare, open battles, or political-religious movements like the Ghost Dance.

The paths to the resolution of these disputes have affected the disposition of remains from past excavations now curated in museums of one kind or another, but they most immediately affect archaeological research in progress and in the future. Rosen (1980) and Bowman (1988) have analyzed this conflict essentially in terms of four alternative approaches that have been or are being pursued in various situations: (1) discussion between the parties to the dispute to arrive at accommodation and compromise; (2) statements of policies by governmental agencies and professional associations in formulating guidelines for relating to Native Americans; (3) judicial action; and (4) legislative action. As Rosen asserts (p. 6) : "... more is at issue here than some arcane features of archaeology and the law. What is really at issue is the way in which anthropologists must think their way through the difficult ethical problems that arise from their studies of other human beings – problems that pose analogous complexities in every domain of the social sciences."

The second, third, and fourth of the above approaches are each burdened with many pitfalls, for a more detailed discussion of which the reader is referred to Rosen and Bowman among others. In this essay I can only briefly summarize the complexity of the problems they pose as extrapolated from the many cases that native groups individually or nationally have contested. On the basis of these analyses I am inclined to agree with Margaret Bowman that "the most straightforward approach, and perhaps the one with the most promise in resulting in ongoing positive relations between the Native American and scientific communities, is discussion of the conflict between the interested parties, directed toward an understanding that is mutually agreeable" (Bowman 1988 : 147).

Natives can take unresolved conflicts to both fifty State court systems and to Federal courts and appeal for reburial on the basis of their constitutional rights in all of these contexts. To date they have done so in a number of cases, in only a few of which they have received favorable verdicts. Their cause is greatly jeopardized by a number of factors. A not inconsiderable barrier at the outset is the need to translate among three languages : from ways of thinking as expressed in their own language to English and from English to arcane legalese. When do they have Standing to Sue ? When is a burial site part of a cemetery and when is a cemetery by law considered to have been abandoned ? These and some other considerations (for example, pleading on the basis of rights of privacy on behalf of the deceased or the descendants of the deceased) are both matters of translation and varying interpretations. For native groups the older the remains and the greater the distance from the burial site the more difficult to claim the bones by recourse to judicial guidelines whose meaning is derived from Euro-American culture. The onus is placed upon the individual or group to demonstrate a reasonably close connection to individuals in uncovered graves. In American law a private owner may also give an archaeologist the right to excavate on his property. Can he then allow the archaeologists to claim the remains of burials the latter may have recovered ? The owner as well as the native has the right to sue on his own behalf and the outcome is never certain.

What constitutes a cemetery or a gravesite when it is considered to have been abandoned are equally thorny problems. In the recent past it has sometimes gone to the very heart of the legal definition of what is a religion – to what extent can Native American spiritual beliefs and practices be equated with the Great Religions of West and East – and when is a burial supported by religious belief to be protected by law. Several tribes have had great difficulty in justifying their claims to land over and against those of eminent domain, by recourse to arguments based on their spiritual importance. More immediately relevant, the notion of gravesites established near a church or of bounded cemeteries with grave markers situated at some remove from a community have no counterpart in Indian cultures; they are products of Euro-American social and political history. Native American burial customs differed widely and interments were often scattered in different sites known only by oral tradition or not remembered at all (Rosen 1980 : 7). Some groups were involuntarily moved by the government and still others were mixed with the bones of their enemies whom they confronted in face of the Western Movement of White settlers. To document genealogical or even less stringent criteria of connection with the deceased under these circumstances obviously poses great problems in court. In one state a decision has gone against a tribe because individual burials were said not to be easily identifiable and natives had the custom of never returning to visit the dead who were thus deemed to have been abandoned. In another state a court ruled that the mere act of burial indicates that survivors do not intend to abandon the dead. When the right of ownership and access to remains have been complicated by early treaties native arguments about what they intended at that time are open to further dispute.

Suits have been argued on constitutional grounds : freedom to exercise their religions, equal treatment of human remains, and rights not specifically enumerated in the constitution, like the reburial of ancestral remains. Occasionally native plaintiffs have been successful, but more often than not they have failed to win their case. The judicial approach remains a viable approach in the future. It is however very expensive and often frustrating.

In addition to suing in court Native Americans can also seek to have existing state and federal legislation enforced and, as an increasingly visible interest group, lobby for new laws regulating archaeological research and protecting their resources and disinterment of dead bodies. There exists legislation on all these matters, including the reburial of human remains. This has the advantage of moving beyond judgements based on a meagre body of existing case law. Legislatures have already enacted laws that affect the status of ancient remains as well as that dealing with cemeteries and recently dead bodies. Although Congress in 1979 passed the Archaeological Resources Protection Act that increases native participation in the control of material resources on reservation lands, it does not provide protection for off-reservation sites nor does it require re-burial. In the same year Congress passed the American Indian Religious Freedom Act that requires federal agencies to "examine their regulations and procedures with an eye toward preserving the ceremonies, sites, and objects necessary for the exercise of Native American religions" (Rosen 1980 : 14). The efficacy of this and similar acts will depend upon how these statutes are interpreted in practice. Other legislation has dealt with the preservation of historic sites, the environmental impact of federally assisted projects, etc.

Federal laws and regulations pertain mostly to federal or Indian land. Each of the fifty states, when confronted with reburial issues and the perceived need to regulate archaeological field research, may therefore have to enact legislation of its own. Several have done so in recent years and others are likely to follow suit. A few give broad protection resulting in beneficial cooperation between archaeologists, establishing a Commission on Indian Affairs (where present) and local Indians, others little at all. Bowman (1984) cites four states (California, North Carolina, Massachusetts, and lowa) that, although variable in their approaches to the recovery of human remains, have succeeded "in creating an atmosphere of cooperation between Native Americans, archaeologists, and state officials" (206) Of these only California exempts scientific merit from considerations of reburial. In practice, however, all parties to conflicts of interest have resorted to compromise in arriving at a resolution of these conflicts. The recent decision by Stanford University (*N.Y. Times*, June 14, 1989) to return all disinterred curated remains of neighboring Ohlone Indians after an agreed upon and presumably short remaining period of study is a case in point. A committee constituted of the chairman, Department of Anthropology, a university archaeologist, a political representative of the Ohlone and university administration representatives met on a regular basis for almost two years to arrive at this decision. Even so it faced the strong opposition of other archaeologists both within and outside the university (Gross 1989). On the other side the university also received strong commendation for its action.

The Stanford case reflects the great ambivalence and anxiety that archaeologists in the United States have about constraints they must face about the merit and pursuit of scientific research. Since 1985 their professional societies have conducted several conferences with the participation of Native Americans, anthropologists, museum curators, and lawyers that might seek mutually acceptable legislation. They have also established an ethical code to serve as a guideline for respecting the legitimate interests of those whose cultural history they are researching. This and other positions, especially on the reburial issue, have met with opposition.

However much such stated policies and guidelines have improved communication and cooperation between the interested parties they are not enforceable and therefore do not in themselves resolve the reburial conflict. In my estimation that will depend upon the weight that certain prestigeful institutions, that have made nationally advertised decisions, will carry for the disposition of future cases. Stanford is one possible model that other universities could emulate. Policy set by the Smithsonian Museum, with by far the largest number of curated remains, is likely to have a greater influence in this regard. Its present director, and himself a distinguished archaeologist (Adams 1989) states that Smithsonian policy will respect "... the right of descendants to reclaim the remains of their ancestors... Beginning with clear cases and working toward more difficult ones, we are seeking to establish analytical and ethical principles that will cohere into a consistent repatriation policy. Such a policy must be sensitive both to the role that living tradition of ancestral continuity play in contemporary Indian communities and also to the part that science plays in deepening our understanding of the whole aboriginal past." How broadly the demand for proof of descent will be interpreted at this moment is still undetermined.

At present, in light of the immense difficulties in establishing an agreed upon national legal policy reconciling respective interpretations of inevitable compromise, it seems to me that a case by case or group by group resolution of the disposition of human remains, such as enunciated by the Smithsonian and as embraced in the *Statement Concerning the Treatment of Human Remains* by the Society of American Anthropology (*SAA Bulletin*, June 1986), is likely to carry the day in the foreseeable future. Some cases, however, will probably serve as models for many others.

I have dwelt on the reburial issue at some length – even so, in summary fashion – for two reasons. First, similar controversies have taken place almost simultaneously, as we have seen, in other first world countries, notably Canada, Australia, and Great Britain. It is a burning issue in Israel and may become so in other new nations of Africa, the Pacific Islands and elsewhere. And, second, the debate questions the objectivity of science expressed by many archaeologists by raising moral, political and ideological problems inherent in the interpretation of their evidence. Aside from the ethical issue of dismissing native positions in the process of doing science, it addresses the problem of whether or not archaeologists correctly interpret the past when they ignore native views about their own past. Robert Layton (1989 : 2), in his introduction to a published set of papers presented at a recent conference on international archaeology, asks : "Can indigenous peoples contribute to a reassessment of their own past, or does Western culture have a monopoly on scientific method ? » I rather think the question should be put : can indigenous peoples provide new evidence of the past that would favor alternative scientific explanations ? Science contains a subjective dimension – creative imagination – as well as an objective one. As Layton concludes (p. 18) : "If people from other cultural traditions question the archaeologist's models of stability, change, and discontinuity, or the association of cultures and genetic populations, their criticisms should not too hastily be dismissed as unscientific." For some, perhaps increasingly, the present controversies support this opinion; others will seek to defend their view of science and arrive at the best possible compromise with native groups. In either case archaeologists will continue to articulate and to some extent must alter both their aims and procedures. However much they may have preferred to think of science as neutral, they operate in fact in an interactive world.

MAINSTREAM ARCHAEOLOGY

What I refer to as mainstream archaeology concerns the kinds of problems the study of which nation-states seek to promote for its own purposes. They might do this through selective financial support of proposed projects, the creation of government bureaus for archaeological research, the establishment of museums and cultural centers, and the hiring or archaeologists with topical specialization– or some combination of these. If they come from other countries archaeologists may work on problems outside the mainstream by bringing external funds and securing government permission. In this sense, perhaps, archaeology as practiced in countries with a long and well established scientific tradition does not have a mainstream, although even this is open to question. It may be more characteristic of new nations with long histories of relatively independent histories before the advent of European colonialism. At present I know of very few cases, the best known being Israel (see Shay, 1989, for a recent and very useful discussion of this issue). Perhaps the request by e. g. African states for the return of valued art objects from museums in Western countries signals some such tendency in the near future. The two most common purposes we can think of for mainstreaming are : validation of claims to boundaries and national interests of any other kind. Mangi (1989), a Papua New Guinea archaeologist, asserts that given the great diversity of local groups, of western Christian churches and political immaturity, there is little basis for people in this new nation for a shared sense of political nationalism. In this light he sees the role of archaeology as contributing to nation building by revealing a common ancestry and a common past overlaid by the legacy of a colonial past and alien political institutions imposed at the time of independence. Does Chinese (possibly Indian) archaeology reflect an overacting national concern for its ancient origins and long continuity, with pride in esthetic achievements or with some other evidence from the past that would reinforce a shared sense of national consciousness ? If there were a mainstream archaeology in the United States or elsewhere today it would probably be identified by the kinds of projects funded by the National Science Foundation or some comparable agency, in line with what good science should be. It is to these orientations, past and recent, as well as to an emerging critique and suggestions for new directions in the archaeological enterprise that I turn to finally as constraints on its objectivity.

COMPETING INTERPRETATIONS OF ARCHAEOLOGICAL DATA

Strictly speaking the various approaches to the interpretation of data in archaeology are internal to the discipline; archaeologists are doing the interpreting. To date, however, the theories, and concepts all come from elsewhere, from economics, social and cultural anthropology, ecology, sociology, and so forth. It is in this sense that I think of them as external to how archaeologists ply their craft. With the professionalization of the discipline archaeologists continued for long to display an interest in the more spectacular remains of prehistoric communities. Spaulding (1987 : 263) could say that archaeologists, among other things, could use their methods to provide ancient art objects for esthetic contemplation. This was especially true for research into ancient civilizations, whether in Mesopotamia, Egypt, Greece, Persia (modern Iran) or in the New World civilizations of Aztecs, Toltecs, Mayans, and Incas. Until recently archaeologists of ancient Mesopotamia, for example, concentrated their efforts on the excavation of urban centers, monumental architecture, hoards of great art, royal tombs, temples and palaces, the succession of dynasties, and as much of the dynamics of production as could be recovered, with the aid of written records.

Even where excavations revealed the historical succession of communities from simple neolithic villages to complex cities little attention was paid to the processes by which this occurred until the 1960s and thereafter. Until then concentration on such matters of power structures, the nature and relations between temple and state institutions, dynastic successions, craft specializations, trade, changes in regional power relations, and other understandings to be gained from the study of urban communities left unanswered questions of how ancient cities arose and they dynamic interplay between cities and their rural hinterlands. The emergence of cities in Mesopotamia was largely recovered through stratigraphic excavations of prominent sites (see Wooley 1939, for example). Adams (1965; 1981) and Nissen (1972) were the first to emphasize the importance of regional analysis to bear upon these problems in Mesopotamia. In the major ecological zone of Uruk they attended to such matters as new technology, labor and craft specialization, and changing settlement patterns recovered from survey analysis. Among other things they asked the question : why did one village site rather than others become first a town and then a city and where did its population come from ? From these analyses and the work of many other archaeologists in that part of the Near East, ranging from Lower Mesopotamia to the Zagros mountains, we have begun to get a picture of zonal development and inter-zonal connections - the role of climate, soil characteristics, salinization, changing channels of the Euphrates river, and other environmental factors; the signifance and expansion of trade, colonization, and conquest in the historical dynamics of this part of the ancient world (Nissen 1988).

Sanders *et al* (1965) in the Valley of Mexico had undertaken a similar investigation in the New World, and Mayan archaeologists by turning their attention to the nature of agrarian production as well as the more spectacular urban centers have revealed not only the historically changing relations between urban communities but also the dynamic interplay between rural and city sites as well as the historically changing relations between urban communities themselves. In the process they have also altered our understanding about the historical population dynamics of these cities, and have provided a much fuller and more accurate conception of Maya civilization, its origins, larger context and development.

Archaeologists who began to attribute special importance to regional analysis (see Johnson 1977) could draw upon a large body of surface survey studies of settlement patterns that had accumulated over two decades (Ammermon 1981). The examples from Mesopotamia and Middle America, cited above, are cases in point. These and other kinds of regional analyses began to draw upon geographic theories of spatial behavior that led away from exclusive concentration on specific site excavation to a broader contextual analysis of site relationships and long term social change, for which the archaeological record is especially useful. It is one example of how earlier preeminent attention to one body of data precluded research in others; how theory external to archaeology governed the nature of questions asked, relevant data sought, and analytical methods.

A similar development occurred in social anthropology with the publication of Skinner's pathbreaking publication of regional analysis in historical China (Skinner 1964/65). In fact the burgeoning of various archaeologies in the past thirty years has closely paralleled that of anthropology, which in turn drew upon internal revisions of culture theory and other social science theory. Proponents of one view or another heatedly sought to define the proper goal of anthropological research and in the process have nearly fractionated the enterprise. Ortner (1984) sounded one note of optimism in her not altogether successful attempt to suggest the complementary contributions they make to a more or less unitary discipline.

Archaeology also has its optimist in Trigger who suggests that acrimonious debates over the theoretical propositions relating to human behavior are "yielding to profitable dialogues, while archaeology as a whole is coming to appear less sectarian within the broader context of anthropology" (Trigger 1984 : 275).

The struggle with diverse realities of the factual record led Shanks and Tilley (1987b : 23) to query whether a "repressive pluralism" would prevail in archaeology or whether "different archaeologies are simply different approaches to the same past". Some social anthropologists and archaeologists alike have been almost paralyzed by similar competing claims to theoretical legitimacy. These developments have prompted various historical surveys and critiques, ultimately favoring one position or another, that reflect much intellectual sophistication, soul searching, and substantial scholarship. Rather than traverse at some length the content of these reviews [see especially Trigger 1984; Hodder 1986; Earl and Preucel 1987, Shanks and Tilley 1987a and b; and Gibbon 1989] I intend briefly to consider the principal forms of research they entail. These are:

The new archaeology and Systems theory
Structuralist archaeology
Marxism and its several interpretations
Symbolic archaeology
Behavioral archaeology

The *new archaeology*, first enunciated by Binford (1962), was based on a positivist philosophy of science that privileged the collection of data within a theoretical and hypothetical-deductive framework that rejected traditional archaeology as normative in its conception of culture, descriptive, and speculative. It emphasized process and sought to test propositions in evolutionary terms as a people's adaptation to environmental and ecological circumstances. It emphasized the construction of models and experimented with different kinds of quantitative analysis. This exclusive view of science rejected not only historical studies in the absence of documentary evidence – the cultural history of traditional archaeology – but also inductive approaches to science.

In the first blush of enthusiasm for the power of scientific analysis the new archaeologists claimed to have established a new paradigm for doing prehistory which would supercede an outmoded view of culture and methods of doing prehistoric ethnography. Subsequent critiques of earlier studies in this vein – a reliance upon structural functional theory that emphasized equilibrium and stasis with change induced by external factors – toned down the missionary aspect of this claim. When it moved beyond specific site and regional analysis to test cross-cultural propositions (the correlation between style and distribution with the presence or absence of lineage structures, for example) it was censured for taking traits or features out of context. In this respect it resembles cross-cultural studies in social anthropology which, despite methodological criticisms, continues to constitute a sub-field of that discipline.

The short history of the new archaeology also reminds me of ethnoscience and componential analysis in cultural anthropology. This is a cognitive approach to the search for native principles underlying various domains of culture and has made interesting and important contributions. The flurry of early ethnoscience research was also thought by its practitioners to replace more conventional methods of ethnographic analysis. It too had its critics, since it was shown that more than one model could explain a given array of facts and therefore one could never be sure which of these correctly reflected thinking about them. Nevertheless ethnoscience today constitutes one among a number of methods of ethnographic data collection and analysis. So, it seems to me, is the future likelihood for the new archaeology, especially with its reforms and emphasis upon middle level theory (although symbolic archaeologists, like Hodder [1986 : 116-117], assert the falsity of this approach, as well). Insofar as they train and influence future practitioners in this mode the new archaeologists impose constraints on the statement of goals and unity of the discipline, as indeed the practitioners of other archaeologies we shall consider. Spaulding (1988 : 268), who conceives of archaeology as science in the broadest sense attempts to reconcile even the most contradictory theories as simply "urging us on... to better science".

Systems research, as reflected in the work of Clark, Renfrew and other British archaeologists, is integrally related to the new archaeology. It places emphasis upon processes of intercommunication and interaction between a series of entities or subsystems that constitute a society. Drawing upon systems theory it uses concepts of negative and positive feedback as internal sources of stability and change, the latter as instigated by external forces (environment, population, settlement pattern). Like the new archaeology, or perhaps as part of it, the systems theory approach to the interpretation of material culture thinks of stability as the natural state of society and culture and change as something to be explained.

While recognizing the several advantages of systems analysis over traditional archaeology (e.g. Shanks and Tilley 1987b : 33-34) critics have raised the same objections to it as to the new archaeology.To quote Hodder, for example (1986 : 25): "Within the... systemic approach cultural meanings are imposed, but always from the outside, without adequate consideration. The assignment of cultural meanings is normally based on Western attitudes, which are implicit and undiscussed. It is assumed that burials, rituals, headgear and pot decoration have universal social functions, linked to their universal meanings [and to social-cultural stability]; objects are wrenched out of their context and explained cross-culturally". A functionalist approach to the interpretation of fact, in this view, not only fails to allow for alternative interpretations of the same facts but also imposes our own attitudes and ignores those of the people who made the objects, buried the dead in a certain way, etc.

Earl and Preucel (1987) refer to the remaining departures in archaeological research during the past two decades – contextual, structuralist, Marxist –as Radical Archaeology. Marxism in whatever mode has a distinct advantage over new archaeology and systems research in that it invokes a dynamic sociology that attends to internal sources of change, contradictions and competing social interests, and also power relations that govern access to resources. It therefore is to be commended for assuming variability of meanings assigned to cultural laws, behavioral patterns, and the like by different social categories (e.g. by gender, age, status), noted in living populations. In both attends to history and promotes in-depth studies of particular histories within a general theoretical framework that enables cross-cultural generalizations.

Structural and contextual archaeologies stress the role of human agency, the practices of individuals in everyday activities or events that have recursive relations with the structuring of these activities. Drawing upon the theory of Giddens and Bourdieu they seek to show how pattern is generated and, in the case of Bourdieu, how it may change. Individuals matter; they play an active rather than passive role in creating both stability and change. For Hodder the insights of Bourdieu are exciting for the archaeologist because he includes "the mundane items in the material world, of the type excavated by archaeologists – pots, bones, pins and door frames – [as playing] a part in the process of [early] enculturation, in forming the social world [habitus]... Material culture in particular plays a highly active role, creating society and creating continual change" (Hodder 1986 : 73-74). In these respects the links of structuralism to Marxism constitute an improvement over the applications of materialist Marxism to the archaeological record.

Hodder proceeds, however, to criticize structuralist, together with processual and Marxist analyses, as "... limited in their ability adequately to explain the past, because they refuse to grapple with the *content of historical meanings* (italics mine) and with the question of where style, structure, or ideology comes from" (p. 75). The context of actions and the reconstructions of meanings ascribed to the physical remains that prehistoric peoples left behind, Hodder asserts, should constitute the legitimate goal of archaeological endeavors. Even Bourdieu's structuralism, which incorporates culture (habitus = early enculturation with deep personal significance) as a mediating element between theory and practice, fails in this perspective to deal adequately with contemporary culture theory.

In brief, symbolic archaeologists applaud Marxist research – indeed, they may often think of themselves as Marxists – for its concern with history and internal sources of change and structuralist research for its emphasis on human agency and the activities of everyday life. They find fault with the former, and Gidden's structuralism, for its presumed exclusive emphasis on the social and the latter for its failure to attend to the contexts and meanings embedded in the material objects of the prehistoric record (material things are part of a material *culture*). As regards meaning, Hodder goes farther than Shanks and Tilley (1987b), who accept that the archaeologist cannot with complete accuracy determine past meanings but must be content with translating the past in the language of the present. They liken this process to the anthropologist faced with the problem of analyzing an alien culture in his/her language rather than in that of the original. Their concern, however, continues to be the construction of as accurate a model as possible of that past culture and, insofar as variation in style permits, with variation in meaning within the "positioned social situation of the individual" (pp. 115-117). Like the ethnoscientist they must recognize the possibility of other, perhaps more accurate, models but without the advantage of living actors to observe in context and discourse.

Some neo-Marxists (e.g. Shanks and Tilley 1982, 1987a; Miller and Tilley 1984) seem to turn Marxism on its head. To quote from Earl and Preucel : "This neo-Marxism shares with other Marxist approaches the conviction that contradiction and conflict provide the fundamental basis for an understanding of social domination, legitimization, and change. It differs from other Marxist approaches in its emphasis on ideology and structure rather than economy as the prime determinant " (1987 : 507).

To take one example we may cite Shanks and Tilley (1987a : 155-171) who work through a data set consisting of 70 completely restored or restorable vessels attributable to the southern Swedish middle neolithic funnel neck beaker culture. From a detailed analysis of the distribution of graphic styles and skeletal remains in and at the mouth of a communal tomb they arrive at a series of oppositions (e.g. individual/group, culture/nature/bounded/unbounded, disarticulated/articulated basic body symmetries), "involving social strategies arising from opposed structuring principles of social control by individual lineage heads or elders in contradiction with collective production, and direct, unmediated reciprocity and exchange relations between kin groups". And they conclude (p. 170) that : "the generative principles governing the sequences of bounded and unbounded primary design forms on the pots deposited outside the tomb during phases II and III can be seen as an attempt to resolve on an imaginary (because graphically displaced) plane the contradiction entailed by an assertion of social boundedness [we/them] and non-boundedness [all such groups are part of a communal society] at the same time... The style becomes a material form of ideology attempting to transform the relationship between oppositional elements into a spontaneous whole with the overall aesthetic effect of unity rather than opposition. »

This interpretation and the lengthy, informative discussion of style that preceded it, based on the assumptions they make, is reasonable but is certainly open to criticism on the basis of how much material remains can reveal – or perhaps on its own terms, to alternative interpretations. Given their opposition to functional analysis in other archaeologies one might also question whether this is not an example of functional analysis in other terms : when an ideology attempts to transform the relationship between oppositional elements, is this not its function ?

Finally I mention behavioral archaeology, particularly as espoused by Earl and Preucel (1987 : 510-512). Their position on the future of archaeology is to accommodate elements of the radical critique within a revised framework, one that focuses on more recent decision making models at the level of the individual. They suggest that radical archaeology does not so much constitute a new paradigm as refinements and improvements on it, a position taken by Spaulding, as we have seen. What they are unconvinced of in the work of the radicals is their ability to penetrate the mind of the prehistoric individual, and what further troubles them is the "apparent rejection of theory and the disregard of a replicable and verifiable methodology" (p. 509). If, for example, extensive irrigation works (an irrigation-based economy) has evolved into resource control and stratification in one place, why is it not appropriate to test for the generalization of this process elsewhere ? And if ideology operates in a certain way in a given context, is there a methodology by which it can be observed to operate in other, similar, contexts ?

Behavioral archaeology from this perspective "incorporates the description and explanation of spatial patterning... within a positivist framework..." (Earle and Preucel : 511). They envisage that its theoretical development will be most productive in its derivation from decision making theory and processual Marxism. The data base of archaeology does not readily lend itself, in their view, to cognitive and deep studies of culture, which is problematic enough for cultural anthropologists.

CONCLUDING REMARKS

In this essay I have attempted to point out different kinds of constraints archaeologists have encountered in pursuing their research goals in recent decades. Some have been labelled "imperialists" by two camps : by oppressed peoples who claim that archaeologists desecrate their ancestors'graves by digging them up and sequestering their remains more or less indefinitely in museums; and by cultural relativists who assert that those who subject their data to comparative and generalizing analysis do violence to the uniqueness of prehistoric cultures and the meanings embedded in material things.

The reburial issue, wherever it arises, will require compromise on how archaeologists conduct field research, construct data banks, or return to and rethink about evidence recovered from earlier excavations. At the same time archaeologists increasingly see themselves as involved in the present and its political manifestations. The clamor of contemporary inter-ethnic discourse requires them to attend more to the living peoples, whose territories they invade and who also assert a claim to the past and seek to curb what appear to them as insensitity to, and disrespect for, their cultural values as well as an assault on their civil rights.

On another level, the channeling of research activity by overriding concerns for the uses of the past by governments and peoples, especially in new nations, begins to assert itself in the form of financial support, the training of indigenous archaeologists, and perhaps an increasing scrutiny of projects designed and managed by foreigners. At this point in time it is difficult for a non-practitioner to assess just what role such a political force will play in future research.

By contrast with the controversies that have been swirling around the reburial issue those among advocates of diverse theoretical orientations in archaeology seem to be very sedate. However contentious they may be, the authors of more general reviews fairly (and similarly) describe the central attributes of these positions, but raise different criticisms and ultimately propose and defend their respective views about what the archaeology of the future should look like : what theories, concepts, methods, and goals the material record of the past can reveal when stretched to the limit.The wide range of external scholarly resources examined, assimilated, and thought about is impressive.

The debate (discourse ?) about these issues appears to revolve about a number of dichotomies. Those that stand out to me are : objectivity/subjectivity, society/culture, history (relativism)/generalizing science, the individual/the collective, and common understandings/ cultural variability. They are not necessarily exclusive, in that critics of one body of work may attack it from more than one perspective. Symbolic archaeologists, for example, sharply criticize the exclusive emphasis on objectivity and empiricism of scientific generalizers; there is after all subjective imagination in the construction of theory. But they also attack their inattention to the role of the individual as an intentional actor, hence to intra-cultural variability. The prehistoric evidence and its distribution in space is only known through the senses; obviously it is thus empirical. But stress upon the social – groups, social systems – fails to take into account cultural meanings, values, or ideologies situated in material things, as incorporating cultural ideas.

Hodder (1986 : 89) even finds merit in the explanatory powers of diffusional studies by traditional archaeologists, especially in the application of Kroeber's concept of stimulus diffusion, thought of as "an active social process as working on systems of meaning which develop over the long term". He also credits mainline Marxist theory for its concern with historical dynamics and internal variability and conflict, but, with the exception of Bourdieu's contribution, he finds fault with its omission of human agency and individual interpretations of shared meanings. In this he makes common ground with the rethinking of culture theory by many anthropologists in these same decades.

Perhaps, therefore, it is the social/cultural dichotomy that lies at the heart of these controversies. Those archaeologists who take society as the basic, indeed the only knowable, unit of analysis believe they can accommodate the individual through economic and psychological decision-making theory, as well as retain the contributions of evolutionary theory, systems theory, and spatial analysis without assuming a unilinear model, and by examining cases in their particularity over time. The problem with post-processualism is then reduced to the possibility of cultural explanation from archaeological evidence, given the polysemic and arbitrary nature of symbols (in the case of prehistory, of objects and events as symbols).

So far those who favor cultural analysis, in my view, have yet to make as convincing studies as those who do science in one form or another, including certain processual and generalizing analyses, like the comparative study of the evolution of ancient states. Even so, they are to be commended for raising important questions about the validity of other archaeologies and directing attention to new possibilities for interpreting the prehistoric record. Like anthropologists they will probably continue to struggle for some time with goal definitions and attempts to achieve some unified conceptions of the field. At the same time archaeologists will get on with their work, from whatever perspective they find useful or insightful. The pluralism we observe will lead either to better science, as Spaulding suggests, or to complementarity of effort and building from conceptual omissions of the past. As some archaeologists have asserted, the problems they study and the explanations for interpreting the nature of prehistoric societies are, at least in part, conditioned by the political and economic realities of the present. Social science in this sense is not neutral. For them the recovered evidence about the past constitutes "texts" to be read in context, and, like ethnographies, are subject to continual reinterpretation.

It is an exciting time for archaeology, as well as for anthropology generally. Instead of dismay some may perceive in the present fractional tendencies of the discipline, archaeologists of all persuasions should pursue their various lines of inquiry, improve upon them as possible, and only then recognize dead ends when they become evident.

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