

Semiotix Course 2008, The epistemology of Pleistocene archaeology

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Lecture No. 2. An analysis of archaeology

A preamble

The technocracy we call science is largely dedicated to anthropocentric ends. While it has become a powerful icon during the 20th century, nearly all research funding is directed towards the ultimately selfish aims of humans themselves, especially to medicine, strategic research and space research. The first two seem to strive for contradictory ideals: prolonging and saving human life on the one hand, and perfecting ways of destroying it on the other. But in a more objective sense they are really very similar, being both about self-preservation: either at the level of species or individuals, or at the level of political, ethnic or religious entities. Medical research is very good for the human species but it is a self-indulgent, self-centered, and generously funded pursuit of self-preservation of one species. In the final analysis it is founded on what Albert Einstein laconically called the 'ideal of swine'. The pursuit of 'human happiness', after all, is of very peripheral importance to the world, even within this tiny speck in the universe we are vaguely familiar with. One does not have to be 'environmentally aware' to accept that our species has not been a great boon to our planet's well-being. Encouraged by the righteousness of its historical ideologies and religions, the human species has come to regard this planet as its property. This relationship to the Earth and the natural system that renders our existence possible is very different to that of the surviving indigenous peoples of the world. To some extent it is attributable also to intellectually corrupt aspects of science. It may sound provocative to state this, but since it is undeniably true we ought to ask why such a statement should sound unsettling to us.

The amount of genuinely altruistic science (i.e. not designed to serve human self-interest) being done today is minuscule (and may well have been relatively greater in the 19th century), and is largely restricted to areas that are devoid of any economic potential. A science aimed at the betterment of humanity is not only a very impoverished science, it is a corrupted form of science. To some scholars, the use of the word science in most of the contexts in which it is used is demeaning. True science must be conducted outside of economic considerations and personal ambitions, separate from its practical significance to humans. To be

valid, a scientific proposition or hypothesis must (in addition to being refutable) be acceptable to any conceivable intelligent organism in the universe, irrespective of whether such an organism has ever existed or will ever exist. It must be valid in any conceivable system of intelligence, even one of an organism sharing none of the human sensory faculties, but finding its way in the world with the help of faculties we cannot even begin to imagine. The propositions such hypothetical beings would share with us as being valid are likely to include a number that refer to real reality, a concept of a reality that exists independent of our conceptualizations of the world. Emmanuel Kant calls this *Das Ding an sich*, or 'The thing in itself', and other philosophers have used various definitions and metaphors for it. In Plato's simile of the cave it is the world outside the cave entrance, behind the back of the prisoners chained to the wall, and we humans are the prisoners. In this simile, the noble purpose of science would be to speculate about what is behind our backs, using procedures of logic. Naturally we cannot be sure about the validity of any deduction we make in this fashion, which is one of several reasons why refutation is the scientific way to proceed: hypotheses are not here to be proved, they are here to be disproved. Or, as Ludwig Wittgenstein might say, philosophy is not about discovering truths, but about dissolving human confusions: his "Whereof one cannot speak thereof one must be silent" would be an apt motto for scientists. And on the subject of truth, Nietzsche deserves to be quoted: "Truth is an army of flexible metaphors and anthropomorphisms".

Anthropocentric realities are those conceptualizations hominins have developed of the world, the metaphysical models that so dominate the very functioning of our mind that we are nearly incapable of thinking outside of them. Their long use over hundreds of millennia has contributed to the way our neural structures developed phylogenetically, and they determine the ways in which we *can* think. This presents the greatest challenge to scientific thought: if we as a species think in ways predetermined by past metaphysical or ontological models, how much can we trust our own empirical judgment? For instance, the dominant anthropocentric reality of most of today's humans includes strong concepts of spatiality and time: a clear three-dimen-

sional entity experienced as space, and the non-spatial linear continuum in which events seem to occur in an irreversible succession experienced as time. These, and many other concepts of reality would have been developed in tandem with the evolution of the hominin brain, and when we begin to understand the implications of realities that are possibly predicated, at least in part, on such ontologically irrelevant factors as neural structures determined by cultural agents, we have every reason for a fundamental skepticism. This is no longer commonplace scientific skepticism, it is a most profoundly felt humility—the result of realizing that the gap between our model of the world (i.e. the reality we apparently experience collectively) and the real world is in all probability very much greater than even the skeptics among us had suspected. Modern ‘science’ largely ignores this frightening hiatus, having become absorbed by its own self-confidence, or huddling under its perceived self-importance, having perhaps forgotten that scholarship is about humility more than anything else.

This credibility gap between the false world of anthropocentrism on the one hand, amplified by empiricist and confirmationist science, and the abstraction of an objective reality, which is thought to exist, is apparent even at various trivial levels. For instance, the continuing human endeavor to dominate nature, to manipulate ecology at the material level, is a more mundane expression of the human propensity to create our own environments. One could illustrate the point by considering the disastrous modifications of specific environments by human societies in many parts of the world. But at the much more fundamental level, hominins (early humans) have been creating their conceptual world for as long as they have conceptualized about the world, and this idea of the world we have inherited from them is simply a conceptual artifact. To be logically consistent, we must go one step further and state the obvious corollary: those parts of the human brain, those neural pathways that have been formed during culturally driven encephalization (the phylogenic increase in brain volume over several million years), could be considered to be incidental artifacts. One might argue that, while this is essentially true, the ‘artificiality’ of neural structures has no conscious derivation, whereas archaeological artifacts, for instance, are the product of conscious contemplation. But this would raise the vexed question of human intentionality, which science has shown itself singularly incapable of dealing with effectively. Here it seems best to let sleeping dogs lie; any serious discussion of human intentionality is likely to lead into an epistemic wilderness.

What follows from all this is that, if we would know and understand the processes of the cognitive evolution of hominins, we would be able to trace the way hominins developed their ideas about the world, about reality. Not only would this show us why and how past anthropocentric realities were created, it would also tell us why alternative ones were not, and what their consequences would have been had they been chosen instead. In short, it would prepare the way for a ‘mega-science’.

The nexus of the anthropocentric and objective realities would seem to be the crux in this. It is difficult to see

how there could be no form of articulation between the two entities. After all, there was undoubtedly considerable input of sensory information in creating anthropocentric realities, and the mere technological success of humans suggests that specific aspects of their realities must be in tune with at least some principles of ‘objective reality’. The most sensible course of action in any quest to explore the origins of human realities seems to be to explore the early development of human consciousness, focusing on the period during which the cognitive niche of hominins might have been established. This is where archaeology enters the arena. Without it we are not very likely to learn a great deal about the stuff anthropocentrism is made of. The question is: does archaeology understand this role?

How should we proceed in such a daring scientific pursuit, unequalled in its significance by anything science has ever attempted? This is not an exaggeration; science has never been very effective in investigating the origins of the basis on which human ontologies, including that of science itself, were constructed. How effective can we expect existing knowledge and existing paradigms of archaeology to be in such a quest? This is what we need to examine before we can use the knowledge base of archaeology to assess the epistemology of human constructs of reality. It necessitates a broadly based analysis of archaeology as a discipline.

What is archaeology?

Archaeology is usually defined as the study of the past through the *systematic recovery and analysis of ‘material culture’* (e.g. in Paul Bahn’s *Collins Dictionary of Archaeology*). Its primary aim is to *recover, describe and classify* material remains it considers to be of archaeological relevance, and from this the form and behavior of past societies are then deduced. In a superficial way this definition may sound convincing enough, but when we begin to look at it more closely, questions soon arise.

What does this term ‘material culture’, which we see so often used in archaeology, actually mean? It is clear that it refers to kinds of objects archaeologists recover from excavations or observe elsewhere in the landscape, which refer in some way to past cultures. But are these cultural remains *representative* of the societies who produced or used them? Of course not, most cultural material of the past left no trace at all, for example song, dance, mime, language, mythology and so on. Where material traces of cultures actually did survive, they are in most cases mere shadows of what may have existed once. There are very few exceptions to this rule, such as stone implements, which have a comparatively high rate of survival. This is particularly so when we consider the Pleistocene period, which accounts for nearly all of human history.

The conjunction of the words ‘analysis’ and ‘to classify’ as used in the above definition of archaeology calls itself for analysis. Most classification in science is quite subjective, because most collections of entities do not present us with apparently solid bases for categorization: they offer us no periodic tables of elements, or they do not even consist of species. Rather, most taxonomy in science (including in biology) is in a state of flux, being contingent upon histori-

cal developments in the discipline concerned. They do have one redeeming feature, however: they are falsifiable, they can be tested through processes of refutation. This is not the case with the interpretations archaeology can offer us, where non-inductive experiments are not possible. So it must be stated quite categorically that the classifications archaeology produces should be considered *arbitrary constructs of specialists*. Perhaps they are valid, perhaps *some* of them are—or perhaps *none*. We cannot readily test taxonomic propositions in archaeology.

Even less can we ‘analyze’ them. In scientific usage, ‘analysis’ refers to a separation of an entity into its components, and to a rigorous examination of its constituent elements. But as an eminent South African archaeologist, Professor Lewis-Williams, has pointed out, these ‘elements’ archaeologists might perceive in remains of ‘material culture’ are not predetermined by some periodic chart; they are creations of the researchers themselves. In reviewing the destructive activity of the discipline, Australian archaeologist David Frankel has defined the work of his peers as being similar to that of the sculptor. The individual archaeologist ‘finds’ interpretation just like the sculptor discovers a statue in a block of stone. In both cases, the interpretations are products of creativity, and naturally they will differ between practitioners. Moreover, these ‘egofacts’, as Uruguayan Mario Consens calls them, should be expected to differ according to the historical context in which they are offered for our consideration. The practitioner does not exist in a cultural vacuum at any one juncture in history, and even less in an academically neutral state. On the contrary, there are many currents that determine what interpretations are preferred in shaping what British archaeologist Paul Bahn has called the ‘accepted fiction’ archaeologists favor at any given time. Foremost among them are the powerful dogmas this discipline has developed. To then ‘analyze’ these taxonomies of archaeology’s consensus models tells us about how devout archaeologists perceive aspects of the physical world, about the preoccupations of archaeologists, and about their contingent prejudices. It cannot possibly tell us anything *reliable* about the human past. Certainly, some of archaeology’s interpretations are likely to be valid, perhaps even many of them, but without the facility of testing them we cannot expect ever to know which ones, or what proportion of them, we can trust.

A scientific analysis of archaeology’s favored model of the past, as well as of its nomenclatures, at any one point in history is therefore capable of telling us a great deal about the discipline itself, its academic and heuristic dynamics, its politics, its evolution through history. It does not, however, tell us anything about the subject of archaeology, the peoples of the distant past, with any semblance of scientific rigor. In a general sense, archaeology is an academic pursuit whose role it is to create for contemporary societies the modern myths about the distant human past. Because it avails itself of a great variety of scientific procedures in this quest, many of its interpretations are likely to be ‘true’, or at least partially valid. The importation of falsifiable propositions from scientific disciplines does not, however, automatically confer a scientific status on archaeology itself. The

conditions for this would be considerably more demanding. Other human pursuits, such as industry or technology, also import scientific knowledge claims, but that does not make them sciences.

To illustrate one of the differences between archaeology and scientific pursuits, let us consider the following example. There are a number of disciplines that deal with events and phenomena of the past (for instance geology, paleontology, sedimentology). Some of these, when they are conducted within certain rules, are scientific, others are not, even though they may be based on perhaps perfectly ‘sound’ practices. Consider the similarities and differences between astronomy and archaeology. Both deal with the past; no astronomer has ever observed an event or phenomenon of the present (for the sake of the argument, we shall ignore here the question of linear versus non-linear time). He or she can only witness the *past* in cosmic space, because cosmic present is only rendered accessible to us by *becoming* cosmic past. Some of the astronomical events we observe occurred some minutes before certain of their effects become detectible to us, others took place many millions of years ago. But despite the similarity of dealing with events and phenomena of the past, there are significant differences between astronomy and archaeology. The astronomer can make predictions about the trajectories of all sorts of variables and then test them, the archaeologist cannot. The astronomer uses universals from physics in explaining observations (e.g. spectral shift, properties of chemical elements, nuclear reactions), whereas those cited by the archaeologist refer to ethnographic analogy, deductive uniformitarianism or similarities in the products of modern experimentation (e.g. microwear on implements). Many of these explanations may be valid, perhaps even most of them. This is not the issue; the issue is that there is no mechanism available to us to test them.

These considerations, one would assume, might prompt archaeology to be open-minded, receptive to criticism and to alternative paradigms. Many individual practitioners certainly are, but the discipline as a whole is, as we have seen in Lecture 1, hostile to challenges of its dogmas. In my experience its intransigence is not greatly different from that found in other belief systems, such as religions. The actual merits of an argument or of the evidence in question are of little concern once archaeological debates become imbued by ethnocentrism, nationalism, jingoism, or by a desire to preserve a status quo, to crush academic dissent, or to preclude interlopers from other disciplines from swaying archaeological thought. When we consider that these tendencies happen to coincide with the non-refutable character of many, if not most, archaeological interpretations, it becomes apparent that such a combination would tend to restrict the discipline’s ability to exercise self-criticism. It must be expected to lead to a ‘sluggish’ discipline, one that discourages innovativeness and resents scrutiny of its dogmas. It is likely to regard meddling ‘outsiders’ or epistemological ‘renegades’ with suspicion or respond with open hostility, particularly when these seem to challenge the established authorities in the discipline. In such an academic climate, models most likely to flourish will be those that are most

compatible with mainstream ideology and are least refutable. This creates an unhealthy epistemological climate for the discipline, favoring non-scientific directions. The historical implications of this have been illustrated with a number of cases listed in Lecture 1.

Academic practices have a tendency to trap researchers in their own creations even at the best of times, because they encourage selective acquisition of confirming 'evidence' and specious defense of favored models. In academia, there are no points to be scored for falsifying one's own theories, or for readily conceding that someone else had falsified them. The academic system that has evolved in the Western world encourages the individual implicitly to defend his or her hypothesis at all cost. Being shown to be wrong is regarded as weakening one's professional standing. Academic rewards are restricted to those who prevail, the verbally facile, the unyielding, and those who are careful enough to couch their claims in non-refutable terms. All of this runs counter to scientific ideals, it is much more reminiscent of religious fundamentalism. The true scientist lacks all certainty, just as the mark of the real scholar is a profound form of academic humility: he (or she) does not know whether he is right, he does not even expect to ever find out. As noted at the beginning of this lecture, true science acknowledges that humans have no access to 'objective reality'. So there are no absolutes in human knowledge, which is in a constant state of flux, based as it is on the rather modest intellectual and cognitive means our evolution has equipped us with.

As one of the 'social sciences' (almost an oxymoron, as the ability of an organism to study itself objectively at the unsophisticated level these disciplines operate must be seriously questioned), archaeology must be subject to certain obvious limitations. By its very nature, theory must abstract features, attributes, factors etc. from their pragmatic context, and relate these elements by abstract laws or rules. This strategy works in the 'hard sciences', but in the 'social sciences', where what counts as the facts in a given situation depends on contextual interpretation, the attempt to decontextualize the elements over which theory ranges can only result in approximate predictions. The social 'sciences' cannot achieve the definitive predictive success that underlies the disciplines of hard science. The obvious solution for the social 'sciences' is to treat the background skills used in everyday contextual interpretation as a formalizable *belief system*, and thus integrate contextual interpretation into their theory. Moreover, even among the 'social sciences', archaeology is incompatible with the rest of them, because the methods of data gathering available to those others are simply not there in archaeology. The societies in question do not exist, and over 99% of them have left no explanatory records whatsoever.

Another factor to be considered in evaluating archaeology is that it is a fundamentally destructive pursuit: its principal tool of enquiry, which dominates its methodology, is excavation. The famous British archaeologist Sir Mortimer Wheeler compared excavation of soil-like sediments for the purpose of finding selected types of material remains in them to reading a book whose pages become blank as soon as they have been read the first time. This simile can

be extended further. There should be no doubt that even the most accomplished archaeologist would only be able to 'read' a very few of the words in this book before the text disappears. The types of information he or she looks for would be only a small sample in the vast spectrum of possibilities, and this sample would be determined by the knowledge, preoccupations and skill of the excavator, among other factors. He or she would only look for evidence of certain types, and not for other types. In practice, the excavator's priorities will be conditioned by such factors as available analytical technology, research project design, the time and labor available, the available funding, academic conditioning of researcher and referees, and a variety of others—but most importantly, by the limitations of knowledge of the excavator. The actual excavation will in most cases not even be done by the experienced project director. Most archaeological excavation is in fact done by students, volunteers and paid laborers.

Not only is all excavation destructive, there are other, less obvious factors to be considered here. For instance, Egyptologist John Romer has documented examples of recklessness in contemporary research. In the Valley of the Kings, at Thebes, he has shown that archaeological work has been highly destructive in many ways. The numerous tombs there are hewn into limestone that rests on a hygroscopic shale facies. By opening the tombs and excavating them on a large scale, increased evaporation of moisture from the shale has led to shrinkage and geophysical adjustment, which caused stress fractures in the limestone, and rampant damage of the tomb walls and roofs. The tombs, having been robbed of their contents for a long time, are now themselves crumbling because the natural equilibrium has been disturbed by many decades of archaeological activity. When requested to make provision for proper conservation treatment in their projects, Egyptologists point out that they have no experience in structural conservation measures; that these are costly and that research sponsors cannot afford to underwrite the substantial costs of preserving structures *in situ*. Yet these structures had been preserved perfectly for millennia. It has been argued that the looting by 'professionals', which was begun in Egypt in the early nineteenth century, is still going on there, now under the guise of archaeology. Egyptology has long ceased to produce new knowledge of great importance; it has become a routine industry producing mostly trivial new knowledge. Practitioners are more concerned, some say, about preserving Pharaonic culture in more obscure tomes, in writing their papers and theses and in climbing the academic ladder of the discipline than in preserving this heritage for future generations.

This is of course just an example of a much deeper malaise. There are many ways in which archaeology endangers and destroys archaeological resources. Rock art, for instance, has been recorded by destructive methods, or has been destroyed, or allowed to be destroyed, by the very same archaeologists who were placed in charge of its protection. There are examples of this from throughout the world, ranging from the sawing off of whole panels to the use of inappropriate contact recording methods. Archaeology has

looted and stolen millions of items of 'material culture' from their native regions, ranging from the Elgin marbles Britain stole from Greece to the human body parts scavenged from graves in Tasmania. Archaeology sheds crocodile tears over the looting of archaeological resources by the suppliers of the antiquities trade, while ignoring that these materials only became commodities through the promotion of archaeology. There are indeed numerous facets to just this one issue, far too many to contemplate here, but it stands to reason that archaeology needs to be examined critically.

Generic problems

Rather than belabor specific problems such as those just canvassed I wish to focus on the discipline's generic quandaries. Archaeology as a discipline possesses no autonomous universal theory. Its theoretical underpinnings are a potpourri of theories and scraps of theories, imported, often in corrupted form, from other disciplines. Uniformitarianism has served geology and other fields well, so a particular brand of it, modulated by selective ethnographic analogy, provides the discipline's de facto universal theory. It facilitates the view of past human societies as mechanistic entities, in the same determinist way one would study other organisms. But humans have always been 'intelligent' organisms with highly complex cultural imperatives, throughout their history, and one must question the adequacy of this approach. Human responses were no doubt always influenced by cultural choices, by decisions that bore little or no resemblance to the action-response models prescribed by determinism. There is no allowance for individual initiative in processual archaeology (see Lecture 3), in fact this form of theory effectively reduces its subjects to organisms of predictable behavior patterns that played out their roles in 'prehistory' in the same uniformitarian way sand grains being washed down a slope behave entirely as one could predict.

A major misunderstanding about archaeology is the belief that there exists some homogeneous entity called 'world archaeology'. This is a myth. The concept of archaeology has quite different meanings in different parts of the world, and these may be determined by political, ethnic and religious preoccupations of societies. In the U.S.A., archaeology is a sub-discipline of anthropology, whereas in many other world regions it is an autonomous discipline, a collection of quite diverse concerns ranging from numismatics to Pliocene hominoid evolution. As archaeologists Philip L. Kohl and Clare Fawcett observe, "Most of the recognized 'regional traditions' of archaeological research are in fact *national* traditions which have developed within the framework of specific nation-states". The politically determined diverse spheres of interest seem to be held together particularly by the method of excavation. But this is not a technique of investigation exclusive to archaeology, it is shared with many other disciplines, such as paleontology, sedimentology, palynology and geology. In various schools of archaeology, the term 'prehistory' is preferred, which only serves to illustrate the ethnocentrism of this discipline. Based historically on antiquarianism and the pursuit of ethnic and religious origins, this form of ar-

chaeology ignores that the term 'prehistory' is likely to be offensive to more than 90% of all humans and human societies that ever existed. The term is itself unscientific, because the implied proposition concerning the significance of written records (that they are more reliable than oral records) is unfalsifiable.

In addition to archaeology's lack of falsifiability, which bars it from scientific status, there are other reasons precluding such a position. Among them are the controversies over the curatorial ambitions characterizing the discipline. It often seeks control of access to data, objects, sites and so forth, which has led to confrontations particularly with indigenous peoples (e.g. over the possession of skeletal remains or particular artifacts, or over the dissemination of certain restricted knowledge). This raises the issue of archaeology's political roles. The discipline arose in part from the need to underpin the emerging nation-states in the 19th century, imbuing them with early histories and origins myths. Since then the states have gained complete control of the discipline, training, licensing and employing nearly all archaeologists. This means that in a country such as Australia, where most archaeology refers to the history of the indigenes, the state exercises control over all archaeological sites, finds and data. Bearing in mind that the militarily defeated or colonized autochthons have no reason to like or to recognize the states that usurped their sovereignty, this is then a case of adding insult to injury. Politically they object to the archaeology of the occupying power as just another form of cognitive colonialism, and there have been heated battles between local indigenes and archaeologists in various parts of the recently colonized world.

Much ink has been spilt over the political role of archaeology, and yet there are many professional archaeologists who still reject that archaeology has a political role. But all over the world, it is archaeologists who manage the remains and monuments of the defeated, marginalized and superseded cultures for the victorious states whose servants they are. It is the archaeologist who decides whether there was a previous Hindu or Jewish temple at the site where a mosque now stands (a decision likely to lead to much bloodshed), and it is the archaeologist who decides by what means the victims of this or that mass grave met their end. Throughout the history of the discipline, archaeologists have created fictitious grandiose pasts for nation states, most especially in dictatorships. Examples can be cited from all over the world, but most especially from Europe. Just as the archaeologists of the former Soviet Union were obliged to serve their political masters, many of the fierce nationalist movements in modern Russia are led by archaeologists and historians. As the historian E. J. Hobsbawm stated, "historians are to nationalism what poppy growers in Pakistan are to heroin addicts; we supply the essential raw material for the market". To which the archaeologists Kohl and Fawcett added: "Rather than just the producers of raw materials, historians and archaeologists may occasionally resemble more the pushers of these mind-bending substances on urban streets, if not the mob capos running all stages of the sordid operation". The political uses made of archaeology's "findings have facilitated ethnic clashes

and cleansing, bigotry and nationalism far more often than they have promoted social justice". Such comments are perhaps primarily intended to refer to the involvement of archaeologists in the USSR, Nazi Germany, Salazar's Portugal, Franco's Spain, to the Balkan countries and their archaeologically supported rampant nationalism, as well as that of the Caucasus region or the Near East or apartheid South Africa, among others — but even in the most 'democratic' countries, archaeology can have sinister overtones. For instance most Australian archaeologists would scoff at the suggestion that they have political roles, but they do. An example is the plight of the rock art precinct of the Dampier Archipelago, on the continent's north-western coast. It is regarded as the world's largest concentration of petroglyphs, and its destruction by industry since the 1960s has been greatly facilitated by archaeologists, particularly since about 1980 when archaeologists began supervising the controlled destruction of countless rock art sites. So much so that when I launched a major campaign to save this incredible monument I found, to my amazement, almost no support of it among Australian archaeologists. Their argument, no doubt, was that they should not be seen as politically active, but the fact of the matter is that they were more concerned about what would happen to their lucrative consultancy contracts with the immensely powerful corporate interests operating at Dampier.

The notion of idealism and the political neutrality of archaeology derives very little support from reality. Archaeologist Neil Asher Silberman, in a paper entitled 'Promised lands and chosen peoples: the politics and poetics of archaeological narrative', speaks of "the archaeologist with a thousand faces", and especially the "Archaeologist as Hero" (the John Cullinane and Indiana Jones figures we are well familiar with). Bruce Trigger, yet another archaeologist, divides archaeologies into nationalist, colonialist and imperialist, to which Silberman adds two more categories, touristic archaeology and an 'archaeology of protest'. Archaeologists who refuse to accept that their discipline is politically active really do have their heads stuck in sand.

Another aspect of their discipline needing attention is its vexatious relationship with religion, already touched upon in Lecture 1. The most obvious manifestation of this is Biblical Archaeology, a field where religious preoccupations are so intertwined with the pretence of an academic pursuit that its value to learning is hardly self-evident. However, there are many less obvious correlations with religion. It is not at all surprising that many of the greatest 'prehistorians' were men of the cloth, particularly for the century after Darwin's *Origin of the species* in 1859. Once the Church realized the threat of evolutionist ideology it sought to inform itself through encouraging the pursuit of archaeology by its priests. This had the added benefit of watering down the more strident strains of fervency in the discipline, and maintaining a more, shall we say, humanistic balance. Many aspects of it soon reflected a mild theocracy, for instance the way Paleolithic cave art 'sanctuaries' were validated resembled the way religious shrines were. Still today we have a Biblical terminology to define supposedly secular archaeological concepts, such as the 'African Eve'

or 'African Adam', or the 'Garden of Eden'. Still today archaeology operates on the basis of confirmation (seeking to confirm that which one assumes to be true), the system that sustains religions but which is the very opposite of refutation, the way of science. And still today devout archaeologists are apprehensive of science, fearing its methodology and occasionally attacking its practitioners when they turn their attention to archaeology. Indeed, recently an archaeologist, universally agreed to be one of the finest America has produced, published a paper entitled 'On science bashing: a bashful archaeologist speaks out'. Here is what Professor Lewis R. Binford, the founder of what has come to be called the New Archaeology, said in 2002:

"Humanists [in archaeology] are committed to the defense of their chosen identity. Their methods are vacuous and their attempts at learning pathetic. When challenged, their only recourse is to *ad hominem* argument. Those who do not share their privileged knowledge are to be understood as defective persons, persons blinded to the truth, or persons who deny the truth in order to pursue dubious social goals."

Humanist archaeology's fear of science seems entirely irrational, because practically all archaeological progress nowadays is provided by the sciences, especially physics, chemistry and the earth sciences. Thus on the one hand, scientific data and propositions are eagerly imported from the sciences, but on the other hand the methodology of science is categorically rejected in favor of the discipline's de-facto universal theory of latent uniformitarianism and ethnographic analogy. To cushion archaeology from the harshness of science, a field called archaeometry has been created some decades ago. It seems to be intended as a kind of hybrid discipline, but in reality it is more like a refuge, a patch of neutral turf where the two philosophically incompatible sides meet ritually.

Another generic problem with archaeology concerns matters that I am a little reluctant to raise, because I know from experience that overzealous archaeologists tend to become very agitated when I do. But in the interest of explaining generic problems with the discipline I have to find a way of conveying this here, and do so as gently as possible. Some archaeologists are exceptionally well informed and competent, but many have appallingly low standards of archaeological knowledge. At least in part this is related to the fragmentation of the discipline into regional and usually national 'schools', and the lack of effective dialogue between these. The Cambridge School in England, for instance, has delusions about its own international standing, its adherents apparently believing that their school leads the world. To some extent they have succeeded in having this view accepted by much of the English-speaking world. In reality, this enclave is comparatively backward, partly because its scholars are mostly monolingual. They seem to assume that everything of any consequence has been published in English. Not only has more than 80% of all archaeological knowledge never been made available in that language, much of what has been published has appeared in exotic, unknown journals or volumes that no-one in Cambridge has ever heard of. So here the problem is one of academic parochialism. By contrast, I have never met a Russian ar-

chaeologist who is not fully fluent in at least two languages, but most manage several. Between them, the scholars at a major Russian archaeology department can probably read most languages archaeological material has appeared in. Much the same applies in many other parts of the world, but there is a certain tendency in the Anglo-American schools to overlook what has not been published in English and in prominent mainstream journals. This tends to yield a bland conformist version of the discipline that is unaware of its limitations. To repeat an example I touched on in the first lecture: the knowledge that *Homo erectus* managed to colonize island Wallacea has been available for forty years, but had not been published in English until recently. Much the same applies to most of the information concerning early art beginnings, and numerous other special fields or methods (examples will crop up later in these lectures). The problem with such a profound lack of archaeological knowledge at many Anglophone university departments is of course that it limits the information available to their students, it encourages more parochialism in the next generation, and it renders the constructs of the human past promoted by these institutions hopelessly skewed.

I apologize to any scholar who feels offended by my bluntness, but this is an important point to make here. These lectures are an attempt to correct the record that has been so skewed by this state of inadequate information, among other things. A somewhat dismal picture of the discipline of archaeology emerges if this lecture's attempt to deconstruct it is combined with the finding of the first, that the discipline is incapable of learning from its mistakes in the way it has historically treated dissident scholars. If the archaeological dogma is derived, as I claim, from agreed consensus opinion and is then zealously defended by the believers, there is rather limited hope that it can be displaced. Nevertheless, it does need to be challenged for the sake of its own development.

Pathological archaeology

Most archaeologists of the world work, directly or indirectly, for the state, and their discipline is an institution of the state. Yet from the perspective of the people of long-gone cultures, these states usurp their histories. There are very few states in the world today whose sovereignty was not acquired through war, conquest, genocide, violent colonialism or atrocious suppression of previous societies. Just as all history is inevitably written by the winners, most pre-History deals with the losers, the societies supplanted or extinguished. The study of these 'loser societies' by the state that represents the usurping 'winners' will always be a political process. If it is conducted by agents of today's state it is a re-writing of history by our contemporary governments. Some archaeologists will scoff at this truism, which already indicates how biased their judgment is, and how inadequately they are qualified to objectively and sensitively interpret the history of previous peoples. Other archaeologists do accept its validity, but argue that some forms of archaeology do make an effort to overcome the fact that their practitioners serve political masters.

While no doubt correct, it is also true that both ar-

chaeological and anthropological research have been used to support the hegemony of imperialist powers, as well as the subjection of indigenous peoples. The discipline was formed during the 19th century in response to nationalistic needs, such as the need to create histories that legitimize the existence of nation states. The inherent ambiguity of all archaeological data lends itself ideally to the hegemonic interpretation of the past in terms of current political concerns. Any careful study of the history of archaeology during the last two centuries will reveal that archaeological 'interpretations' and even priorities merely reflect contingent politics of the time in question. Enlightened archaeologists have suggested that since archaeological interpretation is a form of political discourse it should be subject to the same standards of public accountability as other forms of expression.

The political dimension is not limited to archaeology, it has also been encountered in a variety of contexts in anthropology. Social scientists, especially psychologists and anthropologists, have for many decades been engaged in such areas as interrogation techniques, counter-insurgency policies, methods of torture and intelligence gathering, and other areas of partisan use of the social and behavioral sciences. For instance, there is currently much debate about the recruitment of anthropologists as spies, e.g. by the Central Intelligence Agency of the United States (CIA). The Pat Roberts Intelligence Scholars Program (PRISP) or the Intelligence Community Scholars Program (ICSP) in the United States provide examples, while corresponding programs in Canada or Australia are more secretive or more subtle. In the U.S.A., jobs for anthropologists to work for the CIA have been openly advertised through such bodies as the American Anthropological Association. Such academics are required to provide briefings "directly to senior policy-makers and military commands". Covert researchers are encouraged to attend academic conferences, where they must "show a high tolerance for ambiguity" — whatever that might mean. Such anthropologists will also have a high tolerance for the CIA's long history of torture, terrorism and covert support for anti-democratic movements anywhere in the world. The incursion of the CIA into the discipline of anthropology is well illustrated by the removal, in 1990, of prohibitions against covert research in the AAA's *Principles of Professional Responsibility*, its code of ethics.

The concept of a pathological archaeology, on the other hand, has not been much discussed so far. Since the time Australian indigenes gained a political voice, after their human status was confirmed by referendum in 1966 and their prior settlement of the continent was legally acknowledged in 1992, they have often expressed their opposition to archaeological and anthropological practices. Even in recent years, archaeology professors still fought Aborigines in the courts over custodianship of cultural materials. Skeletal remains arrive in Australia every year from museums abroad, having been supplied by the grave robbers of past years. There are still many archaeologists in Australia today who exist in the delusional state of believing that they represent science and therefore have inalienable academic rights that should have precedence over indigenous rights. But we have already seen that archaeology as currently practiced by the

state is not a science, it is a political pursuit of interpreting the human past from a biased perspective. Moreover, science has no custodial demands and it has no agenda of academic exclusion—as state archaeology certainly does.

The purest expression of a pathological archaeology, however, is the participation of archaeologists in the deliberate, systematic and needless destruction of archaeological monuments, such as rock art sites or stone arrangements in remote regions. For instance, many millions of dollars have been paid to archaeologists at Dampier Archipelago, Western Australia, to facilitate the perverse destruction of the world's largest concentration of rock art. The objections of the owners of the monument were ignored in this. No use was made of the protective legislation of Western Australia concerning the rock art, and when the responsible public authorities were challenged by concerned outsiders to exercise their responsibilities, they failed to do so. The issue is succinctly expressed by the late Vine Deloria, a First Nations leader in the U.S.A.: “Western civilization, unfortunately, does not link knowledge and morality but rather, it connects knowledge and power and makes them equivalent.”

Another summary view of archaeology was bluntly expressed by Australian Frank Campbell:

“Archaeologists dig up their own future. And there's the rub: their careers depend on what they find, how important their finds and how others interpret them. Careers are at stake. There are very few decent jobs. There's a nasty hierarchy to negotiate. ... Archaeologists dig up someone else's past, which means nothing but trouble. ... From Wales to Australia to Jordan, the present molests the past for its own nefarious purposes. ... If careerism and nationalism were all archaeologists had to worry about, they'd be laughing and drinking instead of just drinking. The tragedy is that archaeology has promised a grand narrative but can deliver only conjecture. The archaeologist has no clothes.”

The unsatisfactory state of the discipline

A preliminary epistemological analysis of archaeology, i.e. an examination of how it acquires and interprets its claims of knowledge, thus suggests several areas of concern. First, its interpretations are generally not testable, hence it cannot be regarded as a scientific pursuit. Second, it is historically prone to mistakes, perhaps more so than any other discipline or academic pursuit. Third, its paradigm

is determined by consensus or majority decision, which is guided very much by prestige and academic weight (the ‘silverback phenomenon’: assertive alpha males determine dominant models). Fourth, it does not take kindly to being corrected; in fact it treats dissenters badly. And it is particularly repressive when the dissent comes from scholars who are not recognized as professional members of the discipline.

Other dimensions of the discipline are its various ambiguities. For instance, it both supports and opposes the aspirations of indigenous peoples relating to cultural heritage. It creates taxonomies or systems of material evidence, but there is no evidence that these are valid reflections of reality. It makes extensive use of the sciences and seems to have aspirations of becoming a science, yet it maintains a non-scientific epistemology by rejecting principles of falsifiability. Archaeology values its material evidence and jealously guards it, yet it is also the most effective destroyer of this evidence. In fact it destroys nearly all evidence—not intentionally, but because it lacks the methods and understanding it has yet to gain (e.g. sediments are always destroyed by excavation, and more than 99% of the information available from them is discarded in the process; or by excavating bones and placing them in a collection, the destruction of their DNA is greatly accelerated; and there are countless similar effects, many of which we cannot as yet understand). In the final analysis, archaeology cannot even be described as a discipline. The only discipline it exercises is consensus, and if we removed from it every area of research that effectively belongs to another discipline or field (geomatics, statistics, sedimentology, nuclear physics or rock art science, to name just a few), archaeology turns out to consist of very little autonomous knowledge; in fact excavation technique is its only major disciplinary asset.

The points raised in this lecture are only preliminary, there are more fundamental, epistemologically debilitating factors to consider. They will emerge in Lecture 4 and subsequent lectures of this series. First it will be useful to examine the various philosophical or theoretical models that have dominated archaeology, and that have determined the direction of the discipline historically. That will be the task of the next lecture.