Semiotix Course 2008, The epistemology of Pleistocene archaeology

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Lecture No. 3. **Versions of archaeology**

In the second lecture we have briefly reflected on the notion that the concept of what archaeology is can differ significantly, for instance in different parts of the world. Here we will examine this proposition in greater detail, and explore the reasons for having so many different archaeologies. After all, the same does not apply to other disciplines: the concepts of chemistry, biology or geography are broadly the same, anywhere on the planet. Regionalization of disciplines is more apparent in what are called the 'social sciences', and this becomes particularly noticeable in those dealing with history. Archaeology is perhaps the most fragmented field in this sense.

In principle the archaeologies of the world can be divided by three fundamental criteria: geographical/political differences, theoretical/ideological varieties, and by specific subject preferences. The first criterion refers to the significant differences existing between regional or national schools of thought, the socio-political contexts in which these operate, and the expectations of the respective political masters as well as the public. The second criterion addresses the significant differences between the underlying theories guiding these efforts, as well as the deliberate or subconscious applications of ideological or perhaps subtle political notions. Finally, there is a third criterion, referring to the specializations that have emerged, such as industrial archaeology or numismatics, to name just two of many. Obviously these criteria can lead to an endless combination, such as, for instance, a feminist-inspired interpretation of post-processual archaeology focusing on the 'Neolithic Revolution', which may lead to a comprehensive interpretation of a body of (supposedly neutral) 'data' that would be very differently interpreted by, say, a Marxist bias in a postmodern framework. Therefore the possibilities of combining different interpretational criteria seem almost unlimited, and each such combination is likely to result in different models of what a specific set of data mean. This is particularly evident when we consider that the data themselves are not neutral or objective; they were collected according to the predispositions of the researchers concerned, which would be of the same great range. Therefore it is reasonable to expect that there should be as many archaeologies as there are commenting archaeologists.

The most ink has been spilt about the different theoretical or ideological branches of archaeology, so we shall examine them first.

Theories of archaeology

Traditional notions

Historically, archaeology as a discipline emerged especially in the first half of the 19th century, partly as a development of antiquarianism, partly in response to the demand of the emerging nation states after Napoleon to create origins myths justifying their existence. Antiquarianism first appeared in the early 15th century as a concern of the developing humanism of the Renaissance. The first 'archaeological' work is attributed to the 18th century, particularly to William Stukely who used formal surveying techniques to record monuments. By the early 19th century, interest in the past led to systematic quests in various parts of the world, but it also introduced the first fundamental controversies, which has remained the pattern to the present time. We have visited some of these controversies in the first Lecture.

Prior to the 1960s, archaeological theory was dominated by the idea that culture was normative, i.e. that artifacts are expressions of cultural norms, including what Richard Dawkins has later called 'memes'. Therefore one excavated 'cultural layers', created a taxonomy of their material finds and compared it with the contents of other layers to determine what was regarded as the geographical extent of a culture. Similarly, if such cultural traits were seen to move geographically through time, this was often regarded as evidence for the movement of the carriers of the culture in question, an ethnic group perhaps (e.g. Childe 1929). So for instance in Europe we invented a *Glockenbecher*-culture on the basis of the frequent occurrence of small ceramic beakers 'identifiable' by their bell shape (Figure 1). It dates from about 4500 to 3800 BP, spanning thus the final Neolithic to the early Bronze Age, and an itinerant 'beaker folk' was invented as its carrier, an ethnic group that 'invaded' a variety of regions at various times (e.g. Abercrombie 1902; Harrison 1980). More recent interpretations of the same data favor a social explanation

Figure 1. Bell beakers of the mid-Holocene, Sweden.

of the phenomenon, involving no mass-movement of people (Lanting and Van Der Waals 1972; Sherratt 1994), but a movement of ideas ('memes'), perhaps about status. The same kind of colonization logic is widely found in archaeology, for instance in the concept of a Celtic nation-like people. Today we find it entrenched in the idea that the apparent diffusion of genes over enormous time spans, e.g. from Africa to Europe, proves the mass-movement of an ethnic group in the Late Pleistocene. This shows that archaeology can correct an error, by more careful interpretation, but in time goes on to use the same erroneous logic in a different context.

This traditional approach to interpreting the human past perceived culture as polythetic: its identification requires the co-occurrence of a number of traits, and it was the archaeologist's task to identify and systematize these traits. This leads to particularization, or an emphasis on differences rather than similarities. Cultures need to be perceived as relatively unchanging chunks of shared ideas and ways of doing things. These can expand or move through the landscape, indicating migrations of people that either supplanted others or colonized areas not occupied by other tribes. This notion of pre-History essentially perceived a timetable filled with 'cultures' indicating both their occurrence and their movements. Accordingly, archaeology consisted of creating the taxonomies that make the identification of cultures and their movements possible.

The 'New Archaeology'

The 1960s witnessed the first sustained challenge to this traditional view of the task of archaeology. Its principal founder, Lewis Binford (1964), described it as "an aquatic view of culture": in this traditional view, the pre-Historic world was like a pool of water, in which ripples were caused by stones (innovations) dropped in it, leading to interaction of these ripples (Figure 2). The New Archaeology demanded that the discipline must be more scientific and more anthropological. The second demand is related to the fact that in the United States, archaeology is regarded as a sub-discipline of anthropology, while the first refers to the dissatisfaction with tangible progress. Science was seen as progressing with time, whereas traditional 'culture history' seemed to be static, simply accumulating more 'data' about fetishes, i.e. objects that had come to represent something else, namely people. The reason of science's progress is its practice of testing hypotheses, of seeking falsification. But therein already lay the seeds of the demise of the New Archaeology: that field can import scientific propositions from other disciplines, but it is itself inherently unscientific (not susceptible to falsification). Similarly, the view of culture as "man's extrasomatic means of adaptation" (Binford 1964) is doomed to failure: it presupposes that humans adapt through culture, whereas other animals do so through their bodies. This notion is a fundamental but widespread error in archaeology. Other animals, too, have culture, because the scientific definition of culture is the passing on of practice by non-genetic means, i.e. learning (Handwerker 1989). And a large range of learning occurs in the animal kingdom.

Figure 2. Professor Lewis R. Binford.

Nevertheless, the more positive aspects of the New Archaeology need to be made explicit. There was the demand to consider one's biases and to avoid simple intuition and implicit assumption. The concept of research design was given much more attention: what were the specific questions to be addressed, how would one test specific hypotheses? Perhaps more importantly, traditional archaeology had tended to focus on the more spectacular aspects of the past, the elites of civilizations, whereas the New Archaeology sought to secure more representative sampling to lead to more systematic description of past societies.

However, there is only limited consistency in the new approaches of the 1960s, which were soon lumped together with what came to be known as processual archaeology. This began formally with Flannery's (1967) argument that 'culture process' was the true aim of archaeological research. The archaeologist ought to search for the systems or mechanisms, be they geological, ecological or social, which brought into existence the patterns in which the archaeological record presents itself. This led to a new emphasis on experimental or replicative archaeology, and to a new field called ethnoarchaeology. 'Analytical archaeology' (Clarke 1968) and 'functionalist' approaches (Binford 1972) became new buzzwords, as did Binford's (1981) 'middle-range theory'. The latter's most outstanding contribution to archaeology has perhaps been the revision of the interpretation of various forms of evidence that had previously been interpreted as cultural, but which were now seen as the result of site formation processes. This was the first introduction into archaeology of taphonomy, a science that had been in use in paleontology for about forty years at that time (Efremov 1940). Not only is this an indication that underlying principles of other disciplines were adopted very slowly, to this day most archaeologists have an inadequate understanding of taphonomy. Most still think today it is something to do with bones, when in fact it applies to all aspects of archaeology (Bednarik 1994). Moreover, archaeologists tend to view taphonomy as actuo-paleontology, which ironically is precisely what Efremov sought to replace (Solomon 1994). It is a common feature of archaeology to reluctantly import ideas from other disciplines, and to then misapply them.

With middle-range theory New Archaeologists had hoped to build a platform of secure statements about the human past from which to infer and test theories. It has not

been the success it promised to be, and by the late 1980s it was considered to have introduced a narrow scientism into the discipline (Shanks and Tilley 1987a, 1987b). As Clarke (1978: 465) had observed perceptively, the use of scientific techniques "no more make archaeology into a science than a wooden leg turns a man into a tree". Archaeology seemed to lack the most basic requirements of a science: there is no obvious way of satisfying the need for predictability and testability, and the independence from value judgments is hard to envisage in a discipline that is invariably humanistic and political. The experiment of creating a scientific archaeology had failed, and processual archaeology was largely replaced after it had reigned for merely two decades.

More specifically, these models failed because a uniformitarian analogy, the basis of middle-range theory, cannot validly test a proposition. There is no plausible reason to assume that all groups of people go through the same phases of cultural evolution, or that similar rules of their development should apply. In fact we can safely assume that this is not the case. Similarly, an offshoot called 'behavioral archaeology' seeks to investigate how artifacts become deposited in archaeological sites, i.e. the patterns of use, discard and recovery. Again, taphonomy is the key to interpretation, but the philosophy is similar to that of middle-range theory, presenting the same severe limitations.

Yet another offshoot of processual archaeology is called cognitive processualism. Often confused with cognitive archaeology (a broad and non-prescriptive endeavor of enquiring into the cognitive development of Pleistocene hominins), it seeks to identify behavior related to past belief systems, to cosmology, religion and ideology. 'Structuralist archaeology' is one more facet of the 'New' Archaeology, now a rather 'old' and tired model. Structuralism sees culture as a kind of language, i.e. based on a set of implicit 'grammatical' rules. To understand the system of a culture, one needs to explore the hidden rules that have generated the ways in which culture was externalized. Artifacts, in this system, express structured worldviews, so to examine a binary ideology one would look for consistent oppositions in the presentation of artifacts. For instance the attempts by André Leroi-Gourhan to explain the syntax of Pleistocene cave art in France and Spain by proposing male-female structures are a practical application of these principles. However, because of the extensive contradictions they are hardly accepted today, and it is in any event obvious that such structures cannot be effectively tested.

One more distinctive branch of essentially processualist archaeology is the one informed by Marxism. Its greatest strength is that it links archaeological interpretation to politics, an undeniably valid connection to make. Here, as in structuralism, the question is not so much about the cogency of the theory, but about how to translate its message into testable archaeological propositions. There can be little doubt that modern Western constructs of the world are ideological systems legitimizing capitalism, and thus unsuitable as the basis of scientific enquiry. Similarly, there can be no reasonable doubt that archaeology is primarily a political discourse, as we have seen in Lecture 2.

Postprocessual archaeology

This archaeological movement grew out of dissatisfaction with processual archaeology in the early 1980s, and also as a vehicle for a new generation of practitioners to create their own academic niches. It represents a distinctive retreat from the demand that archaeology become more like a science, in fact it explicitly acknowledges that the discipline cannot be a science. Instead the many different factions of postprocessual archaeology claim that all data are inevitably theory-laden. Perhaps that is true of archaeology as it is being conducted, it is not correct of proper sciences: the proposition of the periodic table of elements, for instance, is not theory-laden; attempts to falsify its principles are unlikely to succeed. Another admission inherent in postprocessual archaeology is that archaeologists interpret what they find, and they assume that their hermeneutic interpretations are like those of the people of the past. Therefore one trait shared with Marxist archaeology is the acceptance that the meanings produced by archaeologists are the results of political acts—the imposition of present-day values on the evidence. Postprocessual approaches are often called 'contextual archaeology', or they are referred to as 'interpretative archaeologies' (note the use of the plural). There is also an emphasis on the need to consider the values of the past, or the thoughts of the people being studied, and in that sense a similarity with the aims of cognitive processualism might be evident.

Judging from the results the experiment of postprocessualism seems to be a questionable improvement on the preceding theory. One of the examples sometimes cited refers to the interpretation of rock art. Chris Tilley, a main protagonist of this school, has conducted a much-mentioned 'analysis' of petroglyphs at Nämforsen in Sweden (Tilley 1991). He calls them 'rock carvings' (made with a carving knife, perhaps? Swedish petroglyphs are usually the result of percussion) and begins by telling the reader that they are of the third millennium B.C.E.—which is amazing because no rock art in Scandinavia has been satisfactorily dated. He constructs an interpretation of an art of which he only has mediocre interpretations (much of the rock art had been destroyed since it was recorded almost a century earlier), only to then deconstruct it himself, and telling the reader that it is impossible to determine the meaning of the art. So the question arises, why write a book that merely interprets someone else's interpretations, and then simply tells us what we have already known since Macintosh's (1977) landmark study: that emic meaning is not recoverable in rock art, except with the help of experts (indigenous people possessing emic access to the corpus in question).

A side branch of postprocessual archaeology is the archaeology of gender. This is an openly political form of archaeology, concerned essentially with two principal issues: an opposition to androcentric terminology, ideology and interpretation; and an opposition to sexism in recruitment, funding and promotion within the academic establishment (i.e. self-promotion of archaeologists). The far more interesting aspect of feminist archaeology concerns the proposition that 'rationality' is an androcentric confla-

tion that biases science in favor of male ways of seeing the world.

Postmodernism in archaeology

Essentially, postmodernism as applied in referring to archaeological theory seems to be a return to relativism. There is a link with the neo-pragmatism of American philosopher Richard Rorty, and an interest in the rhetorical regress or self-reflexivity of allowing language to become the object of its own scrutiny. In the applications of this vague theory to archaeology we seem to have come full circle. Indeed, the idea of relativism has been around at least since Protagoras ('Man is the measure of all things', which is both valid and absurd—as already shown by Socrates). Nietzsche and Wittgenstein argued against reason, as did Feyerabend (Figure 3) more recently, and postmodernism is really a well-established epistemological stance made once again fashionable in the 1990s.

Figure 3. Professor Paul Feyerabend.

In contemporary archaeological theory, postmodernism has produced conflicting messages. On the one hand, disciplinary boundaries need to be broken down, on the other there is a fragmentation of method and multitude of new approaches that lead to more niche archaeologies. By the same token, postmodernism decrees there can be no neutral method, which means that alternative views also have validity, reflecting Feyerabend's 'Anything goes!' dictum. But if that were the case, New Age archaeologies and 'folk archaeologies' would have as much justification as any other version of the past. If we accept this position we also accept that university-run archaeology has no privileged academic position, it is simply one of competing stories of human history, and there is no objective way of assessing any of them.

It would appear that postmodernism arrived at an inopportune time for archaeology. Weakened by its lack of underlying universal theory, by its endless internal divisions and epistemological contradictions, by its inability to secure scientific standing, by its wrangling with the owners of cultural heritage and by the many other factors we have visited in Lecture 2, it now faces an intellectual climate that is skeptical, even hostile, to finite claims of knowledge. It is truly a discipline in crisis, unprepared for such an assault on its authority. Archaeology has little or no comprehension of its own theoretical underpinnings, debate of archaeological theory is "of a very low intellectual standard" (Johnson 1999: 182); endeavors to be scientific are defined as "vacuous" and the attempts of their presenters at learning as "pathetic" (Binford 2000-2001: 334). The new relativism of postmodernism haunts all of the 'social sciences', but if it were allowed further inroads into archaeological thinking it would logically lead to the dissolution of the discipline. In the final analysis, archaeology has a choice between science and postmodernism. The next decades will show how it responds. In all probability it will turn back towards science, and the cycle will begin anew: archaeology is like a dog chasing its own tail.

Regionalism in archaeology

One of the many fallacies of archaeology is the implicit assumption that there is some kind of a 'world archaeology': a universal body of knowledge, data and methods that is shared by all archaeologists of the world. In reality, the underlying notions of the purposes and extent of the discipline, its methodology, the available knowledge base, the relevant political imperatives and many other factors differ substantially between different regions. Although the term 'archaeology' is shared worldwide, some practitioners see themselves as prehistorians, whereas a great deal of archaeology is not concerned with 'prehistory'. Indeed, as noted in Lecture 2 that term is itself inappropriate, because it refers to a time before what one privileged academic enclave of humanity considers being 'history'. The term would be offensive to most humans who have ever lived on this planet, and who were not able to read or write. That applies to some people right up to the present, and all of them experienced their times as history, not as prehistory. To separate 'history' from 'prehistory' on the basis of such a variable as writing is absurd, there is no scientific evidence that written history is more reliable than oral, nor is that proposition testable. In fact it is easy to construct an argument that the opposite is true, that oral transmission is more reliable than written. To qualify the use of 'history' to refer to a specific period of time marked by the advent of a specific feature, it is best to capitalize the word as 'History', a named entity, and derive from this the term 'pre-History'. It is obvious that there cannot be a history before history, hence there can be no prehistory.

The confusion is best illuminated by remembering that in German, the word *Geschichte* has two entirely different meanings (cf. *storia* in Italian). In the first, it translates as 'history', in the second as 'story', which is most appropriate: history is in reality a story, a narrative about the past, an interpretation punctuated by factual snippets, and always heavily edited by many processes (including the fact that for most of written history, most of the people living then were illiterate, so history was inevitably written by the winners and by elites; some Andean rulers took this principle so far that they executed all historians after they acquired power). Therefore we have no credible evidence that 'prehistory' is less reliable than history, because we are comparing two sets of stories that have both unknown levels of veracity.

To consider the regional differences of archaeologies we could begin by reviewing those between the United States and Europe. There are very few archaeology departments in American universities, most archaeology there is attached to anthropology departments. In a general sense, archaeology refers primarily to the past of 'other' cultures, whereas in Europe pre-History is seen as the extension of History, the recent historical period we tend to iden-

tify so because it has left us written records. More than half the archaeologists specialize in the periods of History, and more than half the excavations take place at Classical or post-Roman sites. Yet in Europe, famous pre-Historic sites such as Lascaux or Stonehenge are seen as quintessentially French or English monuments, when in fact they are clearly not the work of identifiable French or English people. Americans, by contrast, view their archaeological monuments as someone else's cultural property. The same applies in Australia, but in China or India, for instance, the European attitude pertains. As a general rule, the nations politically dominated by recent colonizing groups tend to subscribe to the American view. In the case of Australia this has led to the contradictory situation that archaeologists copy English archaeology to the letter, but then eschew the English attitude to archaeological heritage by regarding most Australian archaeological heritage as 'someone else's'.

To some extent, these differences are historically determined, but political ideologies and priorities often influence the structure and direction of regional archaeologies. For instance in China, early human history is regarded as paleontological rather than archaeological, while the rock art of the 'historical' periods tend to fall under the aegis of art history rather than archaeology. The former Soviet Union, another socialist system, also applied the principles of Marxism in preference to capitalism, the ideology of the West. These political frameworks had significant effects on the way archaeology was done, and despite the recent weakening of the socialist world, there remain profound differences between regional archaeologies that are the outcome of political ideologies. As we have seen in Lecture 2, these range from regions dominated by distinctly nationalistic regimes to those exercising apartheid or caste systems or those subjected to dictatorships. To suggest that their respective systems of archaeology are compatible, or closely relate to some fictitious notion of a universal world archaeology would be naive.

Similarly, archaeology in most parts of the world—socialist countries being the obvious exception—is strongly influenced by religions. To illustrate with an example, until quite recently rock art was severely neglected in most Islamic countries, simply because the practice of depiction was frowned upon as being blasphemous. This position has been abandoned only in recent years, for instance by the new practices introduced in Saudi Arabia, which are right now influencing those of countries such as Iran. In Saudi Arabia we had the absurd situation that the only four major works about the country's very extensive rock art were all written by one researcher, Emmanuel Anati, an Italian who had never in his life been to that country. This has recently been corrected through the work of Majeed Khan and others, and I have had the opportunity of being involved in these reforms (Bednarik and Khan 2005). Today Saudi Arabia has one of the world's best practices of rock art site management and protection, and the rest of the Islamic world is expected to follow this example.

To appreciate the degree of influence religions exercise on archaeological practice, one could consider many other

Figure 4. Fake inscription on limestone sarcophagus purporting it to be of Jesus's brother.

examples, some being subtler, others perfectly straightforward. It is obvious that a great deal of archaeological work is directly funded and conducted by religions, directly or indirectly; for instance in the United States or in Israel. Its purpose is clearly not an idealistic and innocent search for what really happened in the past, but the systematic reinforcement of pre-existent belief systems through securing 'evidence' that confirms these. Again I can cite an example from my own experience. Some years ago I was asked to consider coming to Israel to attempt scientific dating of an inscription on a stone coffin purported to be the sarcophagus of Joseph, brother of Jesus (Figure 4). I found a convenient excuse to keep out of what I regarded as a ploy by Christian fundamentalist archaeologists. Soon later I learnt that Israeli archaeologist Yuval Goren had conducted excellent detective work on this case, and had traced the fake coffin to a major operation—a whole factory producing archaeological forgeries on an industrial scale. There are thriving industries in many parts of the world churning out millions of fake archaeological objects, and the Middle East is perhaps the foremost supplier for this world market. Whereas in the rest of the world, profit is the only motive of these industries, in the Middle East there are distinctive religious overtones, nourished by religious fundamentalism. All major religions have a distinctive interest in archaeology, extending back to the very beginnings of the discipline, but the same can be said about New Age movements of all kinds of persuasion. In recent years there has also been a renewed interest in archaeology by fundamentalists trying to disprove the idea of human evolution, which is reflected in countless debates on the Internet.

Mainstream archaeologists oppose all of these manifestations of 'folk archaeology', but not with quite as much enthusiasm as one might expect. While these fringe interests do run counter to preferred paradigms, they also serve to pique the interest of the public in the products of archaeology, and they also help to reinforce and justify the role of archaeologists as 'experts'.

All of these factors so far listed contribute to the breakup of archaeology and its heterogeneity, and to the development of distinctive traditions. But even more influential in the creation of regional differences may be the inherent preoccupations of archaeologists. These are not only determined by the many factors already mentioned, but most especially by local aspects of special archaeological interest. For instance in Egypt there is such focus on the Pharaonic periods that all other subjects are neglected, and similar preoccupations can be found in many parts of the world, including Mexico, India and the Middle East. The

effects of this can be so great that such local schools of archaeology bear hardly any resemblance to the concept of a world archaeology. For instance in the Andean countries, specialization in the relatively recent Andean civilizations can be at the expense of any other archaeological knowledge. I recall working with a senior professor of archaeology in Peru who noticed my interest in specific stones in the field. His knowledge of the ceramic periods of Peru was encyclopedic, but he had never encountered the idea of stone tools, and was amazed why I had such an interest in the countless handaxes I saw on Pleistocene river terraces. It had never occurred to him that these were tools. To me such artifacts were totally out of place in this region, and I realized that the reason why they had remained unreported was that local archaeology had not developed a sustained interest in the pre-ceramic periods.

On another occasion I was shown the famous rock painting sites of Raisen in central India, accompanied by a group of local archaeologists, all of who had been to the sites before. As we entered the first shelter, everyone looked up at the brilliant paintings, and camera shutters began to click. Then I drew attention to a group of petroglyphs on the floor of the shelter and my friends were amazed: they had either never noticed them, or had not realized what they were. They had seen the word 'petroglyph' in print, they had no doubt seen many petroglyphs—but without making the connection between the name and the phenomenon. This occurred in 1990 and it was the moment of the discovery of petroglyphs in central India. Today there are hundreds of petroglyph sites known in Madhya Pradesh and Rajasthan, and they include the two oldest known rock art sites in the world.

These anecdotes show that to assume the existence of a universal body of knowledge, data and methods that is shared by all archaeologists of the world is entirely unwarranted. One powerful separating factor is language. Most Anglo-American archaeologists seem to believe that all that is important in the discipline has been published in English, and in the leading mainstream journals. In reality, most of the world's existing archaeological knowledge has never been published in English. Every time key knowledge long available in other languages penetrates into Anglophone mainstream archaeology, there is excitement as if a new discovery had been made. For instance the Schöningen Lower Paleolithic spears from Germany had been long known, but had only been published in German. When they were first reported, the announcement was treated as a breakthrough, yet it was so only for those on the English-language side of the language barrier. There are numerous examples of this phenomenon, which adds to isolation and fragmentation in the discipline.

Archaeology is, as an eminent South African professor of archaeology stated, what [local] senior archaeology professors say it is (Lewis-Williams 1993). And the differences between many of these regional archaeologies could not be greater. The notion of a uniform global concept of archaeology is a myth, and effective communication between many of these schools is almost impossible. They may ritually meet at international conferences and they do communicate, but still mostly within specific enclaves. There is very little constructive dialogue with other dioceses of archaeology, or between their respective chief shamans. This is not only about significant differences in knowledge, data and method, it is also very much about territory and what goes with it: prestige, influence and funding. What all these hundreds of specializations have in common is a vague commitment to the study of past cultures or peoples, and a notion that this is achieved primarily, but certainly not exclusively, through the method of excavation. Clearly the common denominators are not adequate to treat this as a uniform discipline. Rather it comprises a large number of constructs based on a loosely shared curiosity about the human past—a collection of vocational archaeologies of greatly varying knowledge bases, ideologies and methods.

Subject specialization in archaeology

At this stage it has already become apparent that a universal world archaeology remains an elusive ideal, a fantasy, and yet there is one more major factor dividing the discipline into numerous factions. Throughout the course of the 20th century, archaeology and 'prehistory' became progressively fragmented into ever-increasing numbers of sub-disciplines and specialities. The process began in the late 19th century, especially once the notions of both a Paleolithic period and a Paleolithic rock art had become established in Europe, as well as the division into basic periods (the Stone, Bronze and Iron Ages, introduced by Christian Thomsen, first publicized in 1819) had been generally accepted. By the end of the 20th century, the number of metier archaeologies had mushroomed. The 'octopus of archaeology' (Lorblanchet 1992) included a vast range of 'specializations', ranging from Pliocene hominin evolution to 'historical archaeology', from numismatics to 'garbology'. The separation of these subject-derived boutique archaeologies from the above-listed divisions according to their underlying theories had become increasingly blurred. Many of these specializations made no use of excavation as a method, and many, perhaps even most of them, no longer dealt with pre-History, but focused purely on recent periods, including the present. As these niches expanded their spheres of influence, their priorities often developed away from the initial scope of archaeology. For instance nautical or maritime archaeology is now almost exclusively concerned with sunken shipwrecks, so its activities revolve around diving more than around the understanding of the distant human past. The initial exploration of the oceans in the Pleistocene, one of the most exciting chapters of human history, has attracted no interest whatsoever from maritime archaeologists, and all publications addressing this subject, in any language, have been written by just one researcher, myself. Maritime 'archaeology' is now entirely focused on the mapping and recovery of wreckage, most of it of recent centuries. Its results can tell us very little about the development of ancient people, or influence our ideas of human evolution. In a scientific sense, these efforts can only yield trivial results: details about some ship of which we have in any case historical records, perhaps

about why or where it sank. The underlying impetus for this rather expensive pursuit comes from the motives of treasure hunting (and many of these wrecks do contain treasure), so the sub-discipline derives its appeal primarily from an image of adventure and news-making. Since it focuses mostly on the very recent past, as do numerous other specialty archaeologies, it can no longer be said to be concerned with ancient cultures, and its inclusion with archaeology rather than history is perhaps based on its occasional use of a modified form of excavation. But this is an inconsistent use of the term archaeology: excavation is not a method used by all branches, nor is it exclusive to archaeology; therefore it does not define an archaeological sub-discipline. It is not used, for instance, involved in rock art research or aerial archaeology. Nor is there any reason why excavation is not an admissible method of history. Some would argue that those branches that deal with recent or historical periods would be better accommodated in the discipline of History, but then the question arises, where does one set the chronological separation. Most practitioners see Greek or Roman history as legitimate concerns of traditional archaeology.

Another example of these contradictions is provided by the Tucson Garbage Project Bill Rathje has initiated. It can be seen as a form of 'behavioral archaeology', in the sense that it investigates how and in what forms present people in Arizona discard rubbish. It is contended that the patterns of contemporary garbage disposal might inform us about what happened in the patterns of discard of past peoples. This project would employ the method of excavation and sampling as typically used in archaeology, and its distinctively middle-range purpose is to illuminate human behavior in the distant past. Industrial archaeology, modern settlement archaeology or any other form of historical archaeology, on the other hand, are clearly not concerned with the interpretation of the distant past by analogy, and their inclusion in the discipline seems inappropriate: they should be sub-disciplines of History.

If we combine the effects of the fragmentation by theoretical underpinnings, countless regionalisms and different subject specializations we arrive at an almost endless range of possibilities to divide archaeology into. We might consider what a structuralist feminist mode of Upper Paleolithic archaeology in western Europe might decide the figurines of that period were used for (Dobres 1992). We might find that alternative interpretations arrive at significantly different deductions (e.g. Duhard 1989; Bednarik 1996; Russell 2006). We might explore the ideology or method of what a processualist Stalinist archaeologist of the former Soviet Union might have revealed about shipwrecks of the American Civil War; or consider the findings of a Brazilian ethnoarchaeologist commenting on the meanings of South African San paintings and their relevance to Hawaiian petroglyphs. If this cacophony of archaeologies is not sufficient to convince us that there is little rhyme or reason in the discipline, we could even introduce the very valid concepts of Trigger (e.g. 1984, 1985, 1989), Silberman (e.g. 1982, 1989, 1995) and others that archaeology is primarily a political pursuit, that it consists essentially of

Figure 5. Early drawing by Sergei Eisenstein, showing the community at Riga as individual and anthropomorphised animals.

three forms of discourse (nationalist, colonialist and imperialist, see Lecture 2), supplemented by such approaches as those of 'touristic archaeology' and an 'archaeology of protest'. That would really liven up the party, and expose the farcical claims that archaeology is a uniform discipline. Clearly it exercises no discipline, it follows a scientific philosophy only in the sense of Feyerabend's "anything goes". In archaeology, almost any narrative goes, and in that sense it is no different from 'folk archaeology' or the models of the past held by the ethnosciences of traditional indigenous peoples, or by religious fanatics. Archaeology, in the final analysis, is, in the way it is being conducted, an academic free-for-all (Figure 5).

There is adequate space debris already on some planets and on the Moon, and floating around in space generally, to begin an 'archaeology of hominins in space'. It is only a matter of time before the 'discipline' will avail itself of this 'cultural resource' to create yet another 'sub-discipline' demanding research funding for what is essentially a fairly straightforward but pointless hobby.

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