

I will raise another example to clarify this point. During the past fifty years or so, China's many archaeologists and historians have expended great energy to prove that the Erlitou site is the Xia dynasty capital and that Erlitou culture is Xia culture. To the present day, this goal has not been achieved, because no excavated written material can explicitly confirm this interpretation. Nevertheless, from a strictly archaeological viewpoint, the discovery of the Erlitou site and the Erlitou culture have not in the least kept us from comprehending the course of historical progress in the mid Yellow River region during the first half of the 2nd millennium BCE. Regardless as to whether or not this culture represents Xia, or whether or not this site represents one or another capital city of the Xia, we can confirm that a state-level society, characterized by a surface area exceeding 3 million square metres, possessing multitudes of architectural foundations and walls made of tamped earth, and yielding high ranking tombs and vessels of bronze and jade, appeared in the fertile land of the Yiluo plain at that time. Archaeological discoveries have proven that this culture is primarily distributed through western Henan and southern Shanxi, and that its influence already extended towards the Yangzi River valley, the goal of which was probably to control critical natural resources such as copper and turquoise.<sup>31</sup>

What I would like to confirm, and affirm, is that archaeology has its own methods and goals. It is fully capable of making its own contribution to the reconstruction of China's history, through the use of its own science and language.

#### **Acknowledgement:**

I would like to thank Dr Thomas Bartlett for his hard work on translating and editing this article. I am also grateful to the two anonymous reviewers who made many critical and constructive comments.

doi:10.5334/bha.19203

## **The History of Archaeology as Seen Through the Externalism-Internalism Debate: Historical Development and Current Challenges**

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### **Introduction**

“[The history of archaeology] it is a story full of excitement and of exciting personalities, a story based on the determination of individuals such as Schliemann at Troy and Howard Carter in the Valley of the Kings, a story of the purpose in excavation and fieldwork but a story also of the strange way in which discoveries of great importance made by chance” (Daniel 1981: 212).

“The development of archaeology has corresponded temporally with the rise to power of the middle classes in Western society [...] it seems reasonable to examine archaeology as an expression of the ideology of the middle classes and to try to discover to what extent changes in archaeological reflect the altering fortunes of that group” (Trigger 1989: 14-15).

These citations provide us with meaningful examples of the two broad approaches that have characterized the writing of the history of archaeology during the last century: internalism and externalism. The first quotation, from Glyn Daniel's *A Short History of Archaeology* (1981), illustrates

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<sup>31</sup> Liu Li and Xingcan Chen *op cit.* Institute of Archaeology, Chinese Academy of Social Sciences 1999 *Yanshi Erlitou*. Beijing: Zhongguo Shehui Kexue [China Social Sciences] Press. Liu Li and Xu Hong 2007 Rethinking Erlitou: Legend and History in Chinese Archaeology. *Antiquity* 81: 886-901.

the internalist approach (also called ‘intellectual history’) that was prevalent among historians of archaeology until the 1970s. It conceived the history of archaeology as an intellectual enterprise largely independent from the socio-political context in which archaeology is practised. Therefore, internalist historians focus on the story of those personalities, discoveries and scientific advancements that have contributed to the progress of archaeological science.

The second quotation, from Bruce G. Trigger’s *A History of Archaeological Thought* (1989), exemplifies the more recently popular externalist approach. From this perspective, archaeological interpretations are regarded as significantly influenced by the social, political and economical background in which the research is practised. As a result, externalist historians typically focus on the relationship between archaeology and its social milieus.

While internalism and externalism are nothing more than two categories coined by historians of science during the 1960s (for an introduction to the internalism-externalism debate, see: Basalla 1968; Lakatos 1970; Ben-David 1971; Agassi 1981; Morrell 1981 and Shapin 1992), they are terms often used by historians of archaeology to define the two different interpretations of the history of their discipline (e.g. Meltzer 1989: 17–18; Trigger 2001: 635; Schlanger 2004: 165–166; Trigger 2006: 25; Díaz-Andreu 2007: 4; Kaeser 2008: 10). Why have these terms proven to be so popular?

In the first place, they encapsulate two distinct, if not opposed, views about the origin, nature, scope and limitations of science. In this sense, these terms summarize two distinct positions in such a way as to imply that everyone knows what they mean. As a result, they have passed into the common parlance of historians of science and, of course, among historians of archaeology. In the second place, in the case of the history of archaeology, these notions invoke not only two different historiographical approaches but also two distinct stages in the study of the disciplinary past. First, internalism seems to be an appropriate word to define the kind of historiography that dominated the history of archaeology from the end of the nineteenth century until the 1970s. Second, ‘externalism’ reflects most histories of archaeology written after 1980. The ‘internalism-externalism dichotomy’ thus serves as an appropriate touchstone to understand the evolution of disciplinary histories. Therefore, in this paper I will address how these approaches have shaped the history of archaeology and how they are still conditioning current historical research.

To answer these questions, I will undertake an analysis of publications treating the history of prehistoric archaeology that have appeared in France, England and United States since the turn of the nineteenth century. To begin, I will consider why the first histories of archaeology adopted, almost unanimously, an internalist approach. The acceptance of such a view is better explained by examining the context in which prehistoric archaeology emerged as a scientific field in the second half of the nineteenth century. In fact, most of the foundational ideas that supported the new discipline were highly controversial and clashed with long-established notions about the origins of life and humans. In this setting, archaeologists put into place a number of strategies oriented to reinforce their authority, including the constitution of a disciplinary history. These earlier historiographical accounts sought to demonstrate ‘how much has been accomplished during [the last twenty years], as compared with the hundredfold greater period which has elapsed since the days of the old Greek philosophers’ (Evans 1870: 5–6). Chronicling the ‘immense advances’ (Evans 1891: 10) made by archaeological science during the late nineteenth century, these internalist accounts played an important role in legitimating modern science.

Internalism remained the prevalent approach in the writing of histories of archaeology until the 1970s. I suggest its pervasiveness is related to three factors. First, during most of the twentieth century, internalism was the prevailing paradigm in the recording of the history of science. In this context, it is no surprise that historians of archaeology, who have traditionally borrowed their models from more-consolidated historiographical traditions, reproduced the dominant internalist approach. Second, between 1900 and 1970 the history of archaeology was written by mostly professional archaeologists, who asserted the autonomy of science. Consequently, when exploring

the history of archaeology, they considered 'contextual' factors of no interest. Third, until the 1970s most archaeologists rejected and trivialized the history of archaeology as a pastime, without any relationship to archaeological practice. As a result, the few historiographical accounts written during this period repeated the internalist model that had been established by the first historians of archaeology at the end of the nineteenth century.

This situation changed at the beginning of the 1980s, when the impact of postmodernism and the decline of positivism encouraged the appearance of a new wave of externalist studies. First, archaeologists began to recognize that their science was not a universal self-evident activity but a historically embedded discipline. Examples, such as the use of archaeological evidence by totalitarian regimes, made it clear that the historical conditions in which archaeology is practiced, directly relate to the outcomes of that practice. Second, during the last three decades, most archaeologists have admitted the influence of different kinds of contextual factors over archaeological interpretations. The main consequence of this self-consciousness has been the appearance of new critical approaches focusing on how social values, prejudices and norms came to be embedded in archaeological theories. In this setting, the history of archaeology was considered a privileged discipline, able to demonstrate how nationalism, colonialism or gender prejudices have influenced the scientific study of the past. As a result, during the last thirty years, there has been considerable interest in studies seeking to correlate major changes in the history of archaeology with 'external' circumstances.

While the influence of these circumstances over scientific practice is beyond discussion, new challenges have emerged from the sudden increase of externalist studies. In particular, the ways in which the significance of external or non-intellectual factors were articulated are now clichés. In the conclusion, I will try to demonstrate that these assumptions cannot be taken for granted and raise significant epistemological problems.

### **The 'Radical Internalism' of the First Histories of Archaeology**

The study of the history of archaeology has been historically determined by two developments. In the first place, and as several authors have pointed out, the history of archaeology has been written mainly by professional archaeologists (Trigger 1994: 124; Trigger 2001: 630; Díaz-Andreu 2007: 1). As a result, historical studies have inevitably been influenced by those ideas that archaeologists have about their work. It follows that any analysis of the history of archaeology needs to be contextualized in the framework of those paradigms that have oriented archaeological research. In the second place, historians of archaeology, who generally lack training in the history of science, have often reproduced models elaborated by professional historians. Therefore, any historiographic study has to consider this link between the history of archaeology and the history of science.

Taking these correlations into account, the internalist orientation of the first histories of archaeology is better explained by the context in which prehistoric archaeology emerged as a scientific field in the second half of the nineteenth century. The new discipline was framed by a number of knowledge claims that clashed with long-established ideas about the origins of life and humans. The evolutionism and Darwinism that inspired the first anthropologists and archaeologists represented a radical materialistic approach to the 'problem' of the evolution of species. In particular, Darwin's proposition that variation occurred at random questioned the privileged theological status of God in the history of species. Stratigraphic geology, that made the foundation of modern prehistory possible, was based on uniformitarianism and gradualism, two doctrines that contradicted the until-then widespread belief in catastrophism. Statements about the prehistoric antiquity of humanity called into question the short, Biblical, history of the Earth prevalent since the Medieval period. In short, most of the pillars that supported prehistoric archaeology were highly controversial.

Furthermore, it is important to remember that prehistory was one of the last disciplines to enter the 'great confederation of sciences' (Evans 1870: 3). While other branches of knowledge such as biology, geology and paleontology had been recognized since the eighteenth century, prehistoric archaeology

did not acquire its scientific status until the end of the nineteenth century. For instance, in 1870 John Evans pointed out that '[the] two other provinces that at the present seem almost excluded from the federation of the sciences [are] those of History and Archaeology' (Evans 1870: 4). This lack of recognition explains why the early, and major, discoveries of human prehistory were validated by geologists and paleontologists like Lyell, Prestwich and Falconer.

In this intellectual setting, archaeologists sought to legitimize their new science through a number of strategies oriented towards reinforcing its scientific authority. These tactics included usage of a new terminology, setting up specialized journals, organizing international congresses and, of course, the constitution of a disciplinary history. Archaeologists understood that, to believe in itself, their science needed a its own history. Similar to when any new scientific discipline emerges, history was regarded as a means to elucidate the concepts of the speciality, to justify particular research programs and to establish disciplinary traditions (Schlanger 2002: 128; Schlanger & Nordblach 2008: 1).

In this context, it is no surprise that the historical section with which archaeologists introduced their treatises and textbooks was, for many years, the primary form of disciplinary history (e.g. Hamy 1870; Dupont 1872; De Quatrefages 1884; Mortillet 1883; Cartailhac 1889; Verneau 1890). The history of archaeology was also the object of numerous addresses delivered in museums and archaeological societies (see, for instance, John Evans' lectures: 1867, 1870, 1876, 1879, 1882, 1891, 1899) as well as of papers, essays and books devoted to chronicle the triumph of modern science (e.g. Falconer 1864; Haven 1865; Mortillet 1876; Reinach 1897).

Predictably, the first historical works dealing with archaeology adopted an internalist view adequate for the justificatory and celebratory needs of science. The history of archaeology was mainly conceived as the story of those precursors, discoveries and milestones that had contributed to scientific progress. Professional scientists sought to trace 'the steps by which the now generally accepted belief in the remote antiquity of the human race has been led up to its present advanced condition' (Falconer 1864: 570), 'the main stages of progress up to the present day' (Boule 1923: 21) and 'the progress that had been made in archaeological science during the previous thirty years' (Evans 1891: 4). History was considered a useful tool to demonstrate the inexorable triumph of the empirical method over non-scientific, metaphysical and religious modes of thought. In fact, the internalism of the first histories of archaeology was related to the empiricism and the positivism dominant at the end of the nineteenth century. At that time, archaeologists believed that 'the immense advances that have within the last quarter of a century been made in our knowledge' (Evans 1891: 10) were the result of the introduction of the scientific method to archaeology. According to them, the 'principal, is not the only safe method, is that by which all true advanced in science have been effected and which, since the days of Bacon, has so largely extended the confines of human knowledge. I mean the diligent observation and collection of facts, from which in due time, some general laws may be induced' (Evans 1870: 9). The accurate application of the scientific principles validated archaeologists' conclusions, as Evans wrote:

I can point out the methods by which our knowledge of the manners and customs of remote antiquity is obtained; if I show you the way in which the successive links in the chain of circumstantial evidence relating to human progress are forged, you will be able to appreciate the value of the application of scientific methods to the study of the past, and to feel that our present knowledge of antiquity rests upon something more secure than vague conjecture. (Evans 1882: 4)

The new science was 'founded on facts' (Boule 1923: 19), 'minute observations' (Boule 1923: 19) and 'direct evidence accessible to all' (Evans 1870: 7). In the light of this positivism, external factors were rarely mentioned. In fact, historians of archaeology assumed what Lakatos called 'radical internalism':

There is a radical brand of inductivism which condemns all external influences, whether intellectual, psychological or sociological, as creating impermissible bias: radical inductivists allow only a [random] selection by the empty mind. Radical inductivism is, in turn, a special kind of

radical internalism. According to the latter once one establishes the existence of some external influence on the acceptance of a scientific theory (or factual proposition) one must withdraw one's acceptance: proof of external influence means invalidation. (Lakatos 1970: 94)

In this theoretical framework, the context of science was only invoked to explain 'mistakes' in the history of archaeology: the theological framework that had limited the impact of Mercati's revolutionary ideas about prehistoric tools (Hamy 1870: 19), the religious resistance to accept humans' prehistoric antiquity (Cartailhac 1889: 12; Boule 1923: 12) and fakes like the jawbone of Moulin-Quignon (Boule 1923: 22).

### **The Persistence of Internalism During the Twentieth Century**

As Bruce G. Trigger has pointed out: 'the way of writing the history of archaeology did not change until [the 1980s, when] a positivist or empiricist approach to doing archaeology was replaced by a culturally-based and more relativistic one' (Trigger 2007: 13–14). The persistence of internalism could seem paradoxical, especially if we take into account the variety of paradigms that oriented archaeological practice from 1900 until 1980 (e.g. evolutionary, culture-historical, functional, structuralist, processual). In fact, the supremacy of the internalist approach during the twentieth century is related to three different factors: the evolution of the history of science, the marginal position of the history of archaeology, and the fact that most of the aforementioned archaeological paradigms shared a positivistic view of knowledge in which the analysis of contextual factors was considered of no interest.

It is important to remember that, at least until the 1960s, internalism was the dominant approach in the chronicling of the history of science. During the first half of the century, with some notable exceptions (e.g. Shryock 1936; Merton 1938; Bukharin 1971), historians were primarily concerned with the intellectual development of science. It was only in the 1950s when authors like Joseph Needham (1949), John D. Bernal (1939; 1954) and Bernard Barber (1952) expressed the thesis that social ideologies influence scientific practice. Several historians replied that 'science cannot be determined in its content by the social relation of the scientists' (Gillespie 1959: 89), starting a debate that lasted until the end of the 1960s. Whereas externalism was finally recognized as a legitimate historiographical perspective, internalism remained the dominant approach for several years (see, for instance, Kuhn 1968: 110; Basalla 1968: xiv; Hall 1963: 13). This broader setting sheds light on why, between 1900 and 1970, historians of archaeology were oriented by an internalist point of view prevalent in other studies of the history of science.

Another reason for the persistence of internalism was the marginality of the history of archaeology for most of the twentieth century. As in many other disciplines, for most archaeologists 'excursions into the history of science [were] rather like eating Easter eggs: a harmless amusement enjoyed by the very young the very old, but strictly for holidays' (Russell 1984: 777). The small number of historical works dealing with archaeology published between 1920 and 1975 makes evident the paucity of interest in historical studies. In France, for example, the only significant contributions to the field were by Annette Laming-Emperaire (1952, 1964, 1970). In the United States, only a small number of articles and books (e.g. Wissler 1942; Taylor 1948; Duncan Strong 1952; Schwartz 1967; Willey 1968; Silverberg 1968; Fitting 1973) preceded the appearance of Willey and Sabloff's *A History of American Archaeology* in 1974. The same could be said of England, where only work by Stuart Piggott (1950, 1976) and Glyn Daniel (1950, 1968, 1978, 1981) kept alive the flame of historical studies during this period. Daniel was the first to analyze the disciplinary past from professional standards and, furthermore, he encouraged the study of the history of archaeology around the world. In spite of Daniel's efforts, 'for the majority of archaeologists, the history of archaeology [was] what one does in those brief sections of dissertations, reports, or monographs labelled, as Flannery put it, Previous (Bad) Work in the Region' (in Meltzer 1989: 10). The primary consequence of this lack of interest was that those few involved in historical studies limited themselves to reproduce the models and ideas that had been established at the end of the nineteenth century. Given this unreflectiveness, it is not

surprising that internalism remained unquestioned until the 1980s.

The privileged position of internalism between 1900 and 1975 also related to the fact that, written by archaeologists and for archaeologists, the history of archaeology reproduced the belief in the autonomy of science prevalent among archaeologists until the 1980s. This view assumed that science was an intellectual enterprise insulated from the social, political and economic context in which research is undertaken. This philosophy encouraged an 'intellectual history of archaeology' (Trigger 2007: 552) best exemplified by Glyn Daniel's world histories. According to Daniel, the history of archaeology was analogous to the history of ideas or intellectual history. He endorsed Koyre's famous claim that:

Athens does not explain Plato anymore than Syracuse explains Archimede or Florence Galileo. To look for explanations along these lines is an entirely futile enterprise, as futile as trying to predict the future evolution of science as a function of the structure of the social context (Koyré 1963: 398).

Of course, Daniel accepted that archaeologists operate in a historical context that may exert influence over their ideas (as in the case of German Nazism), but he considered that this setting did not determine the historical development of archaeology. From this perspective, the history of archeology was better explained by the interplay of ideas, new discoveries and new innovative scientific methods that had irreversibly altered the understanding of human origins. Not surprisingly, Daniel accorded great importance to the factual discoveries and scientific advancements that had contributed to the expansion of archaeological knowledge. He considered that:

... the ground in which that sapling [of scientific archaeology] was securely bedded was the advance of natural science at the end of the eighteenth century and the beginning of the nineteenth century. There could be no real archaeology before geology (Daniel 1978: 24).

If the geological revolutions of the early nineteenth century brought archaeology into existence, 'the radiocarbon dating revolutions of the fifties and sixties of the twentieth century brought archaeological dating into a new phase of certainly' (Daniel 1981: 181).

Internalist historians consecrated an asymmetry summarized by David Van Reybrouck (2002: 160) in the following terms: 'Good science is explained by rationality, bad science by sociology'. Glyn Daniel, for instance, argued that the history of archaeology needed to be studied not only as an interesting story in itself, but also 'because without an historical perspective we can at the present day forget, at our peril, or even repeat, past errors' (Daniel 1981b: 10). In other words, the history of archaeology teaches archaeologists what not to do:

One of the great values of studying the history of archaeology is to realize that it is not a simple straightforward record of discovery; it is a record of discovery mixed with false assumptions and forgery and the refusal of established archaeologist to regard their work historically (Daniel 1981b: 11 and 13).

Daniel (1981b: 11) distinguished three kinds of 'false archaeology': the creation of fakes and forgeries, the creation of false archaeological theory for political ends (like in the Nazi Germany and Fascist Italy) and the creation of false archaeologies for financial and personal promotional gains (like Von Daniken's theories). In short, while 'true archaeology' was explained by progress in the scientific study of human origins, 'false archaeology' was related to the impact of 'outside' circumstances over research.

### **The Sudden Emergence of Externalism**

As several authors have pointed out, since the 1980s there has been an explosion of studies dealing with the history of archaeology and, in particular, with the ways in which political, economic and sociological circumstances have oriented archaeological theories. Indeed, I think it is no exaggeration

to assert that during the last thirty years we have witnessed a genuine 'historization' of archaeology, that is a process by which most archaeologists have become aware that their science is not a self-evident approach to the past, but a historically constituted activity. While intellectual histories are still considered as valid historiographical approaches, the current revalorization of the history of archaeology has been characterized by the popularity of externalism during the last thirty years.

The emergence of a new wave of externalist studies has been related to the more general impact of postmodernism over the social sciences. Even if 'nothing about this term is unproblematic' (McHale 1987: 3), postmodernism is generally employed to define a cluster of thinkers who, during the 1970s and the 1980s, shared a skeptical position about the major foundations of Western thought and about the attainment of scientific truths. Many different authors and theories have been classified under this umbrella: Lyotard's philosophy, Foucault's genealogy, Rorty's linguistic turn, Derrida's deconstruction, Gadamer's hermeneutics. In the case of archaeology, the term 'postmodernism' does not refer to a systematic theory but to a number of theoretical frameworks sharing antipathy toward the previously prevalent positivism. The different schools of postprocessual thought include neo-marxism, post-structuralism, contextual archaeology, critical theory, and gender archaeology.

Despite their differences, these theoretical paradigms agree that there is no single, objective truth about the human past. Rather, there are multiple versions depending on different standpoints. Postmodernists also maintain that any interpretation of the past is conditioned by a number of social, political and economic factors. Therefore, they focus on the varied ways in which different groups of people understand the past, emphasizing the subjective nature of knowledge.

Given that the different beliefs about the past can only be understood and evaluated in terms of their historical and cultural contexts, postmodernists are especially interested in the history of archaeology. They consider historical studies as an adequate means to demonstrate that archaeology is a socially-embedded activity. In fact, history provides numerous instances about how the social context has influenced different archaeological interpretations. The history of archaeology is also an adequate way to demonstrate the relativity of scientific knowledge. History shows that the meaning of scientific theories changes over time and that our ideas are constantly being revised on the basis of new foundations. Given that our scientific beliefs are continually reconsidered, there is no reason to judge modern knowledge as having more credence than any other.

As Bruce Trigger stressed:

... the principal influence of postmodernism on the history of archaeology has been to encourage more radical externalism that seeks to correlate specific changes in archaeological interpretation with particular social movements of varying durations and degrees of specificity (Trigger 2001: 637).

In fact, the current emphasis in the social influences of science started in the 1970s, when a number of authors began to consider that 'truth is determined by the cultural context in which it exists' (Fitting 1973: 289–290). In this context, archaeologists as Bruce Trigger, Alain Schnapp, Timothy Murray and Ian Hodder became interested in determining the personal and social biases that have influenced archaeological research. Given the traditional tendency to explain 'mistakes' in the history of archaeology by appealing to social factors, it is not surprising that these authors began by analyzing the abuses often committed in the name of archaeology. They showed how archaeological remains had been used to legitimate totalitarian regimes, how the archaeological record had served to promote the political interests of dominant classes, and how archaeological theories had justified Western imperialism and colonialism. In so doing, they established the agenda and tone of the future development in the field.

Some years later, the publication of Bruce G. Trigger's *A History of Archaeological Thought* (1989) marked a landmark in the history of the field. For the first time, an archaeologist offered a worldwide history of the discipline from an externalist perspective. Trigger suggests that the emergence of

archaeology chronologically corresponded with the rise to power of the Western European upper-middle classes and, consequently, it should be interpreted as an expression of the ideology of this group (Trigger 1989: 14 and 15). Unanimously acclaimed as 'the best intellectual history of the discipline to date' (Willey 1991: 106), Trigger's book marked the beginning of a considerable increase of publications in the history of archaeology. As a result, today 'it is no longer possible to provide readers with a detailed guide to this literature' (Trigger 2006: 549). Therefore, I will only describe some of the general trends that have oriented historical studies of the last twenty years.

Most of the recent work dealing with the history of archaeology has been oriented by a growing interest in (a) ethnicity and nationalism and (b) colonialism and imperialism. Since the 1970s there was increasing interest in determining the ways in which archaeological evidence was used to legitimate the origins of modern nations. This interest was first directed towards those cases in which nationalist ideologies had a clear impact on archaeological practices, such as: the brutalizing use of archaeology in German Nazism and Italian Fascism (Bollmus 1970; Losemann 1977; Schnapp 1977, 1980, 1981; Guidi 1988), the patriotic sentiments that inspired the first archaeologists in Scandinavian countries (Klindt-Jensen 1975; Moberg 1981; Kristiansen 1981; Olsen 1986), the use of archaeology to legitimate colonialism (Murray and White 1981), and the strategic employ of archaeological evidence in contemporary conflicts (Bar-Yosef & Mazar 1982; Broshi 1987; Shavit 1987; Shay 1989).

In the 1990s interest in archaeology and nationalism predominated and resulted in the publication of numerous books and papers, including several collections or readers (Kohl and Fawcett 1995; Díaz-Andreu and Champion 1996; Graves-Brown *et al.* 1996). The popularity of this subject has not decreased over the last decade (Harke 2000; Sommer 2000; Eickhoff 2005; Halle 2005; Brück 2007; Atakuman 2008; O'Neill 2009).

The study of the role of colonialism in the development of Western archaeology was encouraged by previous studies in the field of anthropology, where distinguished scholars demonstrated that 'colonial powers, especially the British, encouraged anthropological research, which gave them useful insights into the people they administered [...] Anthropology developed and flourished as a result of colonialism' (Fagan 1989: 48). Under the influence of this kind of criticism, colonialism became a popular subject among historians of archaeology during the 1990s (Prochaska 1990; Shaw 1990; Sheppard 1990; Coye 1993; Bernal 1994; Barringer 1997; Rowlands 1998).

More recently, studies on colonialism have been fuelled by the impact of 'postcolonial studies' in most social sciences, including archaeology (Chadha 2002; Shepherd 2002, 2003; Schlanger 2003; Seirlis 2004; Horning 2006; Díaz-Andreu 2008; Maffi 2009). Besides nationalism and colonialism, historians of archaeology have also considered archaeology as an expression of the ideology of the politically dominant classes (Trigger 1989; Kehoe 1989; Patterson 1986, 1995), as a social activity embedded in gender prejudices (Gero 1985; Kehoe 1990; Hager 1997; Díaz-Andreu and Sørensen 1998) and, to a lesser extent, as a scientific practice constituted by sociological networks (Van Reybrouck 2002; Díaz-Andreu 2007; Kaeser 2008).

### **Current Challenges: Beyond the Internalist/Externalist Framework**

Paraphrasing the title of the 1992 classic article by Steven Shapin, in this paper I have reviewed the ways in which the history of prehistoric archaeology has been shaped during the last one hundred and fifty years. From the radical internalism dominant at the end of the nineteenth century, to the current emphasis on the social influences of science, the history of archaeology has been influenced both, by the ideas that archaeologists had about their discipline, and by the development of the history of science during the last century. I will conclude by pointing out some of the problems related to the current popularity of externalist studies. In particular, I will discuss certain ideas about the social determination of science that have become commonplace among historians of archaeology, that is, something from which they argue but about which they do not argue.

To achieve this I will compare the evolution of the internalism/externalism debate in the history of science since the 1970s, with the current situation in the history of archaeology. In the case of the history of science, '... if in the 1960s the central problematic [...] was pointed by the reference to the internal and the external, by the 1980s such usages increasingly betrayed the amateur, the neophyte, the outsider, or the out of touch' (Shapin 1992: 333). There are two reasons to explain historians' current reluctance to use the terms 'internalism' and externalism'.

In the first place, after the passionate debates of the 1950s and 1960s, most historians embraced an eclectic position combining 'externalist' with 'internalist' factors with the aim of explaining scientific change. For example, in 1968 Thomas Kuhn suggested that there seemed to be two distinct sorts of history of science: the internal approach concerned with the substance of science as knowledge and the external approach focused on the activities of scientists as a social group. He immediately added that '... putting the two [approaches] together is perhaps the greatest challenge now faced by the profession, and there are increasing signs of a response' (Kuhn 1968: 109–110). In 1970, Laurens Laudan considered the internalist/externalist controversy as an 'insoluble general debate'. He stressed that:

... unless one is prepared to defend the highly dubious thesis that all scientific developments depend on the same sort of influences and pressures, then it is clearly foolish to argue that all (or even most) historical problems can be analyzed in the same way or in terms of the same categories of narration (Laudan 1970: 128).

As these quotes encapsulate, by the end of the 1970s most historians considered that the discipline had overcome the internal/external debate. The decreasing popularity of the externalist approach in the history of science clearly contrasts with the current situation in the history of archaeology, where renowned historians explicitly adopt a 'contextual' or 'external' approach (e.g. Tomaskova 2006: 93; Díaz-Andreu 2007: 4; Schlanger and Nordbladh 2008: 1) and the discourse of 'the social influences of science' remains unquestionable.

In the second place, science historians' reticence toward externalism has related to an increasing awareness of the limitations associated with the discourse of social influence. In particular, the idea, so widespread among historians of archaeology, that 'every [scientific] interpretation [...] is influenced to some degree by personal or social biases' (Trigger 2001: 637) implies a number of problematic epistemological assumptions. The first of these comprises the presupposition of this discourse that 'science' can be identified as an independent entity from the social, economic and political circumstances in which research is practiced. This idea probably had its origins in the modern Western perception of science, in which 'clear boundaries have emerged between scientific culture and that of society as a whole, and between different groups of practitioners within science' (Barnes 1974: 121). Nevertheless, as several historians have pointed out, this distinction becomes increasingly blurry as one passes back into the history of science, where modern categories are usually not pertinent from the actors' point of view.

The second epistemological assumption comprises the externalists' presupposition that there is a space 'outside' of scientific research that can be equated with the 'social'. However, as several historians have pointed out, it is difficult to identify the 'inside' and the 'outside' of science because this distinction depends, foremost, on one's idea of what is 'internal' and 'external'. For instance, one historian can consider philosophical influences as operating within science itself (see, for instance, Koyre's interpretation of the scientific revolution), whereas another can describe philosophy as an external directive. Moreover, the pervasive equation between the 'external' and the 'social' is also difficult to justify. In fact, as many sociological studies have documented, scientific communities are as 'social' as any other groups, so there is no reason to consider the 'external' and the 'social' as synonymous.

The third epistemological assumption comprises the presupposition that radical externalism entails the dangers of social determinism and reductionism, that is, to reduce the history of science to a limited number of 'social' frameworks. For instance, in the case of archaeology, we have often heard

that ‘there is an almost unavoidable or natural relationship between archaeology and nationalism’ (Kohl and Fawcett 1995: 3). While the influences of nationalism or colonialism over archaeological practice have been accurately documented, Kohl and Fawcett’s statements entail the problematic assumption that archaeology is *essentially* a nationalistic or colonialist activity.

As these examples demonstrate, some of the propositions associated with the current wave of externalist studies are problematic and deserve treatment as problems, and not as assumptions. For this reason I suggest that the internalist/externalist framework that has oriented most disciplinary histories requires careful scrutiny in order to move towards a more critically oriented and multi-faceted discipline. While the assumptions mentioned above have not yet deserved any systematic treatment, the good news is that in the early 2000s the number of archaeologists aware of these epistemological issues has greatly increased, in comparison with the small number of the 1980s.

Foresample, in the last decade some historians of archaeology have questioned the internalist/externalist framework (Schlanger 2002: 129; Van Reybrouk 2002: 159), the distinction between science and society (Van Reybrouk 2002: 159–160, Kaeser 2008: 16–17) and the presentist and anachronistic use of modern categories in the history of science (Kaeser 2008: 9–11; Schlanger and Nordbladh 2008: 1). At the same time, they have stimulated contact with sociologists and historians of science, the analysis of archival and unpublished sources, and the improvement in the technical quality of scholarly studies. In this setting, there is no doubt that we can enjoy many benefits we as the result of a more critical analysis of our conventions and assumptions, and that includes some of the dichotomies that support the new wave of externalist studies. For this reason, I suggest it is time to abandon the systematic and uncritical use of the internal/external framework and to focus on a more detailed historical scholarship.

### Acknowledgments:

Research for this paper was supported by Memorial University of Newfoundland and the AREA project (Archives of European Archaeology). I thank Alain Schnapp, Nathan Schlanger, Silvia Tomaskova, Peter Whitridge, Marc-Antoine Kaeser, Noël Coye, Claude Blanckaert, Sonia Levin, Yves Gingras and Wiktor Stoczkowski for their support during the last years. I am especially grateful to Manuel R. González Morales, Richard Bradley as well as two anonymous referees for their critical reading of the manuscript.

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