

*Towards a Linguistic Model for Archaeology*¹

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Archaeological theory has developed through a series of stages that, especially in Great Britain and the United States, has relied heavily on current philosophical trends. Recent concerns have focused especially on matters of interpretation, and two special areas of interest have been cognitive sciences (C. Renfrew) and what was originally termed contextual archaeology (I. Hodder). I have been addressing the same concerns, but from a different point of view.

On the level of theory, I have come to emphasize what neither the archaeologists nor the philosophers have sufficiently recognized, namely the fundamental importance of the concept of a broken tradition. We deal with cultures for which there are no living carriers, hence no competence with regard to self-understanding. Since hermeneutic canons presuppose continuity of experience and of expression, we must focus more directly on matters of method, in an effort to establish objective criteria that may allow us to overcome the “brokenness” of the tradition.

I do so by aiming to identify distributional patterns that may testify to the coherence of the initial perception, and may accordingly train our own perception to respond to the same objective stimuli. Using the metaphor of the “secret kinship” adopted by Roman Jakobson, I want to establish formal regularities and through them identify the underlying, living inspiration. It is on this that I feel we can base a proper semiotic analysis.

The complexity of the archaeological record is compounded by the enormous quantity of data excavated. Both aspects are ideally dealt with through digital applications that emphasize the method more than the technique. The method we propose is a grammatical one, in the sense of a closed syntactical and syntagmatic categorization system that allows statements of predictability and of non-occurrence.

Archaeology and Linguistics

Two Itineraries

Before the 1960s, archaeology was blissfully insulated from larger questions of theory. It was tied to specific cultural domains, and it drew on basic interpretive tenets that suited the respective data sets.

In this regard, the situation was similar to that pertaining to the study of languages in the early part of the last century, when attention was focused on the cultural dimension of each language. If there was a trend towards broader generalities, it was limited to the comparative dimension, and this remained largely focused on ad hoc situations.

It was the advent of general linguistics that directed attention to the universality of patterns, and demonstrated how theory, far from being a sterile abstraction, could nurture a better understanding of the particular phenomena. As for archaeology, it was only in the 1960s that there developed a similar

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trend. But it took a different direction, in two major ways.

First. The thrust towards theory in archaeology was fueled by an interest in philosophy that was stronger than had been the case in linguistics. It is useful to reflect on the reasons behind this.

The starting motivation for the interest in theory in archeology was the same: a desire to identify generalized systems of principles. But for archaeology, this was couched in terms of achieving a greater degree of explicitness, one that would ransom the discipline from a perceived lack of rigor in defining goals and procedures. Philosophy was seen therefore as a template, a prestigious template that would provide a cachet of approval at the same time that it offered a specific method.

In linguistics, philosophy was not in the foreground. In point of fact, the reverse turned out to be true. The early linguistic schools of thought, especially with de Saussure, gave rise to an intellectual movement that affected philosophy (without at the beginning even forging the term by which it became known, structuralism), whereas archaeology remained all the time at the receiving end, borrowing terms and concepts but without really contributing to the larger intellectual scene.

And here is the second difference. In the 20es and 30es of the last century, the notion emerged very quickly that linguistics, as a new method to look at language, had an autonomous intellectual status: it was, in effect, a new discipline.

The same cannot really be said of archaeology. From the beginning, the effort was to describe archaeology “as X,” where “X” is something else, in the first place: anthropology. One exception was David Clarke, who argued in a seminal book published 1968 for an “archaeological central theory,” against the “adaptive repatterning of archaeology” and against the pervasive “archaeological amorphism.” But no real “general archaeology” emerged as it had for linguistics, to the point that one might ask (some forty-five years after Clarke’s early death), whether the “amorphism” about which he spoke is actually congenital to archaeology or not. In other words: is there, or is there not, something specific to archaeology that is not found in any other discipline?

As you can imagine, my answer is strongly in the positive, but in ways that are at variance with what is the norm in the field. So my question is: is there, or is there not, for archaeology, an equivalent of “general linguistics”?

To place the situation more clearly in perspective, I would like to elaborate slightly on what I perceive to be a basic “extrinsicism” in archaeology, with regard to both documentation and interpretation.

Extrinsicism

The impact of new techniques has been extraordinary, the earliest episode in this history being the discovery of radiocarbon dating in 1949 by Willard Libby. As it happened, the relationship with archaeology was, in this case, less asymmetrical than with other techniques: the initial testing was done using conventionally dated archaeological material, and the calibration process that eventually provided essential correction curves to the system was also based on archaeological material. This was inevitable since the process could only be applied to material that was datable through other means, i. e., archaeological material. In this case, then, the positive correlation is more in the nature of the data than in the conceptual dimension of the field.

The relationship is much more asymmetrical for the other major technical developments that followed, particularly in the area of computer applications, from data bases to GIS systems, from digital photography to 3-D reconstructions of ancient buildings. In these cases, “state of the art” always means technical, not archaeological, state of the art. It goes without saying that we could not possibly do without such tools. My point is that their use is essentially extrinsic to the proper conceptual

dimension of archaeology, however much they aid archaeologists in reaching their research goals.

This is just as much the case, more subtly, but just as fundamentally, with data interpretation. The discipline that has most prominently left its mark on archaeology in this regard is anthropology. Other that have played an important role are sociology, geology, ethnography, aesthetics, cognitive sciences, and to a lesser extent than one might think, history. While the progress as been incalculable, here too, as with technology, the state of the art is measured by standards extrinsic to archaeology per se, even while they apply to materials uncovered archaeologically.

Interpreting Interpretation

Both the documentary and interpretive effort I just described were based on specific techniques and methods that were being applied to archaeological materials. Concomitantly, as I mentioned already, there developed since the beginning an unusually strong interest in defining the relative intellectual context, the philosophical framework. This secondary reflection has helped in developing a greater sophistication in the assessment of the interpretive effort in archaeology and sharpening the sensitivity for the basic issues on the very nature of knowledge, derived from broader philosophical systems.

In the process, epistemology has taken central stage in archaeological discourse. Still, it, too, remained effectively extrinsic to archaeology, at the very moment that it should, instead, have raised the most interesting question, one that could only come, wholly intrinsically, from within archaeology itself – to which we must now turn.

In point of fact, the theoretical question about the nature of knowledge is uniquely significant in the case of archaeology because of the singular epistemological barrier posed by archaeology, which we may consider under the rubric of hermeneutics.

Hermeneutics

I should say, at this point, that several archaeological colleagues would regard my concerns as too abstract and academic. Following up on the linguistic metaphor, they would argue that we need only learn to speak the language, as it were, i. e., to recover a culture and make sense of it, with no need for elaborate general theories.

It is in this respect that I draw comfort from the history of general linguistics. Theory does, indeed, contribute to understanding! And so there is room for a general theory archaeology.

The Two-pronged Dilemma

Let us consider what I have called the singular epistemological barrier, which is in fact a double barrier.

First. The process of data acquisition is very distinctive in archaeology because of the wholly fluid nature of the data: these are not, in the first instance, the items in themselves (as one might think at first: a statue here, a cuneiform tablet there). What there is, instead, is the way in which everything is placed in the ground, in an amorphous matrix that has been created, and defined, by the process of deposition.

Now, at the very moment we extract these “things” from their matrix, their relative

emplacement is no longer verifiable. Verifiability pertains therefore to what is lost at the very moment it is observed: this is the challenge for an intrinsic approach to data acquisition. Thus, an intrinsic approach to interpretation builds on the way in which each “staccato” element has to be reinserted in its closer articulation with all the others that are eventually seen to form a coherent assemblage.

Second. Emerging from the ground, archaeological data have the singular opacity of being outside the living stream of tradition. The primary link we have is simply that they belong to a human tradition. Otherwise, we are pretty much like “anthropologists on Mars,” to quote the way an autistic person described herself, with reference to the fact that she could not internalize normal human emotions and had instead to develop a “library” of symptoms that would trigger given preset responses.

Let us review further these two dimensions of archaeological hermeneutics – the gathering of data and the gathered data.

The Hermeneutics of Stratigraphy

Data gathering in archaeology is wholly unique. There is a very special sense in which we can speak of an “invention of the data,” in the double sense of the term *invenire*: to find what is there and to “invent” it afresh. Stratigraphy is the technical term. The remains of the human past are embedded in a matrix that is wholly opaque as to its consistency and as to the way in which the single elements are interrelated with each other.

“Discovery” means, literally, to remove the cover, but a cover that is deeply interlaced with every piece within it. The process of excavation entails identifying not just the pieces as typologically discrete elements, but their emplacement, i. e., the way in which they are in the ground the moment we wield our tools. And the identification of their “coming to rest” in this “place,” i. e., of their deposition, is the concomitant task. Stratigraphy is the correlation of the two.

A profound implication of this derives from the fact that this intricate physical construct is not only hidden, but is hidden with a finality. How so? Because what is hidden is not just the piece with its typological identity, which its ancient users knew full well. What is hidden, what no one has ever seen before the archaeological moment of excavation, is the way in which the pieces lay in the ground. The depositional process that has scattered and covered them is the final moment of the “breakage” process, the process by which a once living tradition has come to be “broken,” separated from the living stream in which we are situated.

There is a fundamental dimension to this that, in my view, has not been adequately appreciated by archaeologists. You see: the only thing we can properly document is emplacement. How things are in contact in the ground. But the excavator’s interest lies downstream. How did things get there? And even more importantly: what was their function? Their meaning?

It is all more than legitimate, of course. It is what we ultimately want. But the accent should be, precisely, on “ultimately.” When we are shown a neat building, with a clear morphological identity, we must remember that it has been “invented” – yes, “found,” but also interpreted in its morphology by removing what we have “understood” to be not germane to that morphology.

Now, typically, archaeological publications present this “invention”: what has been interpretively found. It would be a bit as if a text publication contained only those sentences that the editor can understand, and that fit into a neat overall interpretive scheme.

So, in a very basic sense, the hermeneutics of stratigraphy means that we must repeat the experiment of excavation by retracing the steps of the excavators (we’ll never be able to repeat the excavation as such). We must define, more systematically than is the case at present, the canons of emplacement interpretation, showing then how from it we can expand our analysis to deposition,

function, and all the higher levels of meaning.

The Hermeneutics of Broken Traditions

Stratigraphy is, then, the icon of the broken past. If emplacement is the pristine moment that documents the “breakage” of a lost human tradition, stratigraphy is the pristine moment when the breakage calls for healing. The pieces are reinserted in the human experience of the excavators, and through them they are reintegrated into the modern library of memory. And this is where archaeology can rise to speak about “Hermeneutics” with a capital H. And can contribute, thereby, to philosophical discourse as an active player.

Let us consider briefly the difference between this notion and that of temporal distance, a theme that is very much present in Gadamer and Ricoeur (to quote the latter: “The purpose of all interpretation is to conquer a remoteness, a distance between the past cultural epoch to which the text belongs and the interpreter himself”).

Clearly, a simple chronological lag only entails depth, not interruption. It is true that, after the pristine moment of the archaeological “invention,” elements are once again reinserted in the current stream of experience, in our unbroken tradition (which is why the hermeneutics of stratigraphy is the proper iconic moment). But – the moment of reintegration still defines the starting point when awareness of the brokenness first emerged.

With this emphasis on the notion of brokenness, archaeology causes hermeneutics to come face to face with a counterpart, as it were, of itself. The notion of brokenness implies an anterior unbroken tradition.

The simple basic question then is: can we reach for it, as we must if we aim for its interpretation? Can we reach behind and beyond the breakage, and inspect, meta-hermeneutically as it were, not just the elements as reinserted in our tradition, but also as they were in their anterior existence?

I claim that this approach is possible, with a singularity that belongs exclusively to archaeology, but to which I would like to adapt a linguistic model.

The Secret Kinship

“...true poetry – the more original and alive its world, the more contradictory the contrasts in which the secret kinship occurs,” using Roman Jakobson’s preferred quote from the Czech poet Karel Hinek Macha.

In line with this approach, my goal is to discover the “secret kinship” of formal patterns that do not imprison the data as a sterile overlay, but rather flow freely with the inevitability of perfection inside the act of artistic creation. Gadamer's discussion about taste and genius relates to this, but by way of contrast rather than of possible positive correlation. Unabashedly, I feel that this match is possible between patterns that are demonstrable, on the one hand; and, on the other, that an acquired sensitivity develops that allows us to bridge the brokenness not through fantasy, but through the verifiability of argument.

“Secret kinship” speaks to the essential dimension of correlative patterning, hence to the formal quality that makes it intelligible and arguable. But it speaks at the same time to the spontaneous nature of the bonds that hold together the whole. It speaks, in other words, to the co-existence of creativity and regularity. The constructive tensionality between the two is beautifully expressed in the titles of two of Vivaldi's concerto collections: *L'estro armonico* (The Harmonic Fancy) and *Il cimento dell'armonia e*

dell'inventione (The Contest between Harmony and Invention). The point is that patterning regularity is by no means equivalent with sterile formalism, and that, if there was a live inner trigger that gave rise to the patterning in the first place, the rediscovery of that trigger will evoke now a similarly live response. There is, after all, life and truth in method.

Grammar

It is in this sense that I conceive of an “archaeological central theory,” in terms of itself (rather than of “anthropology” or whatever else), defining its constitutive elements and showing how they are structurally integrated into a closed “grammatical” system.

As you can well understand, I take “grammaticality” to refer to the paradigmatic predictability of correlations. It is not used in a vague analogical sense. It refers instead to the definition of rigorous paradigmatic and syntagmatic coherence of the defining categories, that are nested within each other according to well articulated hierarchical modes.

The fact of a broken tradition implies that we have no living carriers of that tradition, no “living informants.” The way around this is to establish a record that is truly “global” in its dimension, i. e., one that includes every single bit of information we are recovering from the ground, even the most seemingly insignificant. Even for small excavations, the resulting universe is immense, easily reaching in the millions of bits of information. And this is where the grammatical approach comes in.

The tags attached to each element are not conceived in an ad hoc manner, but are rather integrated within a coherent system where every element is linked conceptually to all others. This allows for programs to generate automatically the narrative that is interlaced with the data base, organizing, in an intelligible and transparent way, the seemingly infinite number of records that are generated. It allows for the kind of distributional analysis that is essential for the identification of such factors as minimal constituents, mutual exclusivity, recurrent clustering, and (fundamental in a heuristic sense) statements of non-occurrence.

This is in line with an approach that I have described as digital thought (in an article dedicated to Prof. Ivanov. It stresses the importance of looking at the computer not so much as a tool to be utilized through mechanical techniques, but as an entity that must be approached through conceptual methods. Herein lies the distinction between a merely electronic use that is ultimately tied to the sequential nature of unilinear arguments, and a proper digital use that is instead based on multilinear dynamic arguments.

The system has been fully implemented for our excavations at ancient Urkesh, and are presented in detail (both practically and theoretically) on our website (which will open in a beta phase in the Spring 2013).

The Perceptual Trigger

The work with cuneiform texts is more than an analogy, since the tablets on which the texts are written all come to us exclusively through the process of archaeological excavations. The opacity of these texts is very real because they have emerged from the ground without the benefit of any key to the underlying code, of any statement of self-understanding. They belong squarely in the realm of brokenness. And yet in both cases, material culture as well as texts, one can achieve a level of education that rivals that of the once living informants and can come close to recreating their competence: we can safely say that we no longer decipher, but that we read cuneiform texts. The ancients were fine tuned to the reality of their unbroken tradition by means of their cultural upbringing,

which fed on repetitive patterns. It is this education that we can emulate.

With regard more specifically to material culture, a trigger of such an educational process may be seen in the perception as it applies for example to the built environment. It was a perception that was sought, and that found its fulfillment in the actuality of a physical world. Our excavations can aim to recreate the same perceptual context. In this sense, the perception of the built environment is like the vanishing point in perspective: it is the trigger that unifies coherently the convergence of all lines, and does so for us as it did for the once living viewers.

It is one of the most stable points of reference in an excavation. The buildings relate to each other in space in very concrete ways. This corresponds to a visual perception that guided those who moved in and around these spaces in antiquity, and those who built those structures in an accretional mode. Yet most excavations tend to focus on single buildings. We must go, instead, beyond the single, isolated element. And in so doing, we may identify the ancient perceptual point of view – which is declared by the organization of space. This emerges in a special way when looking at the relationship between architecture and landscape.

The Hermeneutics of Archaeology

We can then speak of a "Hermeneutics of Archaeology," as both a subjective and an objective genitive.

On the one hand, I am asking (and this is the subjective genitive) how does archaeology affect hermeneutics? What is the epistemological basis for archaeological knowledge? Does it truly affect the starting point of lines of thought like those of Gadamer or Ricoeur?

On the other hand, we interpret archaeology as an object of study (the objective genitive). Here we want to assess, the validity and the usefulness of the effort made in analyzing the material culture of a broken tradition.

How does archaeological knowledge, as it emerges very concretely from the confrontation with a specific data set, impact on the general theory of knowledge? Can we take it for granted – as being similar to all other types of knowledge? Or is it in a category that is so sui generis as to ask for a revision of accepted standards and canons? Can we work around the handicap of total remoteness?

I draw comfort, as I said at the beginning, from the linguist's experience, comfort in the belief that it is indeed possible, given the proper method, to speak again a language once spoken, to live again a life once lived.