
THE GROUND, THE GROUND, THE GROUND

OR, WHY ARCHEOLOGY IS SO 'HARD'

Paul Kockelman

Let me begin with five observations: 1) the essence of a mirror is not that you can see yourself in it, but that you cannot see behind it; 2) the exemplary medium, the 'queen' of all media, is therefore the thermos, understood as an internally mirrored container; 3) thermoses preserve differences across distances by insuring that their contents stave off thermal equilibrium for short periods of time; 4) but they only do so at the expense of not just binding the contents to the container, but also blinding the contents to whatever surrounds the container; 5) if you want to survive your first night in Minecraft, and not get eaten by some creep, the simplest strategy is to dig down your own height (plus one) in distance, and then put a block above you (see Figure 1 on the following page). In some sense, you trade your ability to sense and move in exchange for about 10 minutes of time. Like the contents of a thermos, you buy yourself a 'night' by allowing yourself to be blinded and bound.

With these observations in mind, I thought I would define archeology in a relatively broad way. And to do that, I need a workable notion of death—let's say, coming to equilibrium with one's environment (precisely what a thermos, or a manhole in Minecraft, allows one to avoid). In this way, not just anyone but also anything can die insofar as it becomes indistinguishable

from its surroundings. Understood as such, archeology is interested in anything that didn't die insofar as it tells a tale about something that did. That is, something must not have come to equilibrium with its environment, such that it can be distinguished as figure to ground (or signal in noise). And this same something, by reference to a ground, figures as evidence of something else (itself otherwise lost in the noise). Phrased another way, archeology is interested in whatever 'stands out' insofar as it 'stands for' that which is no longer 'stand-ing.'

Notice, then, that this definition turns on two kinds of grounds. The first kind of ground is relatively sensorial (figure to ground, signal in noise). And the second kind of ground is relatively semiotic (figurable as the sign of something else in reference to a ground). Phrased another way, one and the same agent, however distributed, needs to both signify and interpret. They must sense something as a sign and, concomitantly, actually create the sign—if only by bringing it into view as such. And they must interpret this sign, by treating it as a sign of something else and, concomitantly, relating to that something else—whatever the degree of remove. I'll take up these and many other senses of ground below. For the moment, though, it is enough to focus on two overarching points. First, archeology, like any other art or science, is a semiotic endeavor: a sign gives rise to an interpretant in reference to the features of an object and the interests of an agent. That hardly needs to be argued. And second, a key thing that differentiates archeology (in a narrow sense) from other semiotic endeavors (such that the discipline itself 'stands out', so to speak, and doesn't die) is that both of these grounds—sensorial

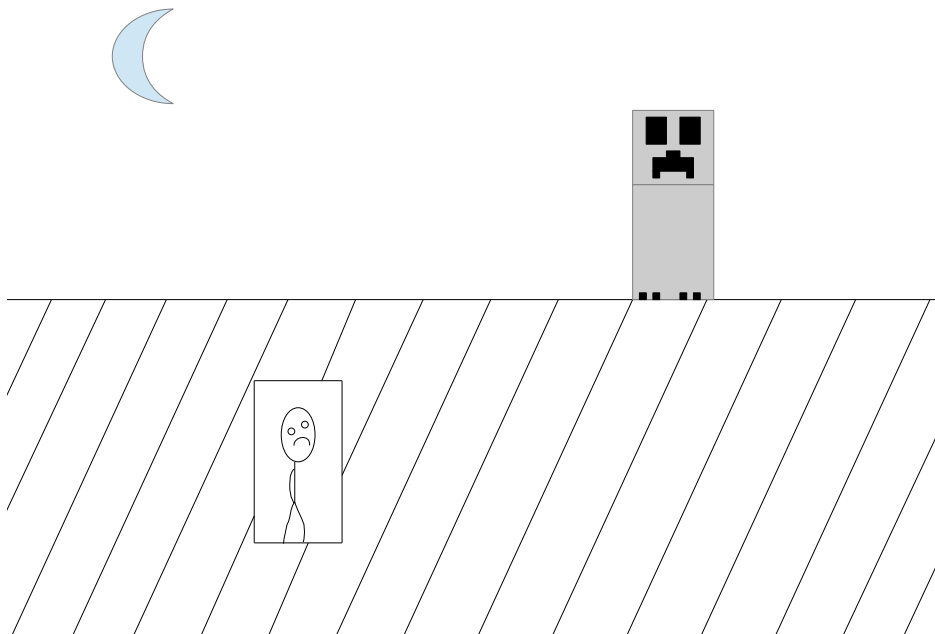


Figure 1: Surviving your first night in Minecraft

and semiotic—are tightly coupled to, if not coterminous with, ‘the ground.’ That is, the sensorial ground is the semiotic ground is the ground you’re standing on (and often buried in).

Let me return to our thermos, our manhole, our mirror. Two entities, call them ‘big L’ and ‘little l’, had to interact, such that each could leave an impression on the other. (And if you don’t like the Hegelian story (there were two entities, who came to interact), you can have the Heideggerian story (there was interaction, until the interactants got distracted).) How they interact (hit, shake, pound, etc.) is not my concern for the moment. At some point, they go their separate ways in a very peculiar way. Little l says, bind me and blind me, for I want to live. And big L says unbind me and unblind me, for I would rather die. You want big L, you want to live it up, you’ve got to give up little l. Conversely, you want little l, you want to live a long time, you’ve got to give up big L. This is as much a thermodynamic parable as it is a moral law—where Boltzmann and Aesop meet. And it is a basic insight that allows archeology to work—we can learn about big L (the hand) from little l (the handle), given that they once danced, got distracted, and opted for different deals. To return to Minecraft, one half of the interaction (little l) remained in the manhole; and the other half (big L) went up to confront the creep (whose real name is ‘entropy’).

With this parable/law in mind, and setting aside that odd overlapping of grounds for the moment, notice that this definition of archeology is otherwise radically portable, in the sense of ‘broad in scope’ or ‘independent of scale.’ To see how, note the following three points. First, it is not that one thing is completely alive, and the other thing is completely dead. All that matters is that one thing resists coming to equilibrium for a little longer than the other thing. And this should make sense—it’s not usually the living that speaks most articulately about the dead, but more often the dying. Second, the duration that the living has to go the distance (in comparison to the dead), doesn’t have to be historical in magnitude. If it lasts a picosecond longer that is enough (think of the trace of collisions in a particle detector, and the tale it tells of whatever just collided). Indeed, the scales can be wider as well: if it lasts 13 billion years that is also enough (think of microwave background radiation, and the tale it tells of the origins of the universe). Third, the ‘duration’ does not even have to be temporal per se (though it’s usually, and perhaps necessarily, if not definitionally, coupled to time). All that is necessary is that something bridges a distance, any distance: here and there, this and that, I and you, us and them, here and the here-after. Indeed, if archaeologists (in the narrow sense) often focus on the *there*-after, linguistic anthropologists often focus on a kind of hear-after. In short, all we need to do archeology (in the wide sense) is a difference in liveliness (big L, little l), however slight, and a distance between the differentiated (above ground,

below ground), however small.

That is all you can ever mean by ‘materiality.’ And so there are as many ‘materialities,’ and thus potential archeologies, as there are modes of differentiation and distance. But archeology, in a narrow sense, has nonetheless focused on materiality in a very conventional sense—that which is both hard and handy. And so one overarching question is, *why?* Well, if all you need is for one medium to live (little l) and another medium to die (big L), the discipline relies on some stereotypic forms of media, both to establish and to extend itself. As for establishment, verbal language and embodied habit (big L) had to die in order that ‘materiality’ (little l) could live. (We needn’t be sad for their sacrifice: for they really got to live it up while they lasted.) As for extension, when archaeologists do take archeology to another scale, they usually depend on the relative liveliness (little l) of some particular medium: into the archive (written language), onto the internet (HTML), back to the genome (DNA). That should be obvious enough: materiality is defined by contrast to other media and, in particular, stereotypes about other media. But conventional definitions of materiality do not just turn on relative durability. Bones and stones, if you can forgive me this one vulgar formulation, are both holdable and beholdable. They are suitably scaled to the size, strength, shape, senses and even sapience of people. They are *whats* that can be sensed and moved by *who*’s. And it is not without reason that similar kinds of objects constitute our stereotype of material culture. As we said above, before big L and little l got distracted and went their separate ways, they had to have danced, precisely so that each could leave its impression on the other, such that little l can subsequently shed light on big L, not only illuminating it as a life-form but also as a form of life. Finally, if archaeologists insist on a certain scale, it’s really a question of their own survival: they necessarily bind themselves to certain scales, while blinding themselves from other scales, in order to both stand out, and stay standing, as a discipline.

So now we may return to our initial question: Why is archeology so ‘hard’? And the answer offered so far is four-fold. First, archaeologists are hardened: theirs is a discipline that deals with death on a daily basis. They don’t just have one foot in the grave, they’ve got one hand and one eyeball as well. (It’s no wonder they run in packs and drink like fish.) Second, their medium is necessarily durable in relation to a variety of other media. Third, archaeologists are obdurate: they insist on a certain scale—not just the hard but also the handy, not just the holdable but also the beholdable—and not without reason. And finally, as we will now see, archeology as a discipline is quite difficult to do.

Figure 2 shows a distinction which is bad (or perhaps just upsetting) for the following reasons. Where we draw the line between causality and semiosis is itself grounded in semiosis (or is it causality?). Causality can be framed

C \longrightarrow E Cause gives rise to Effect

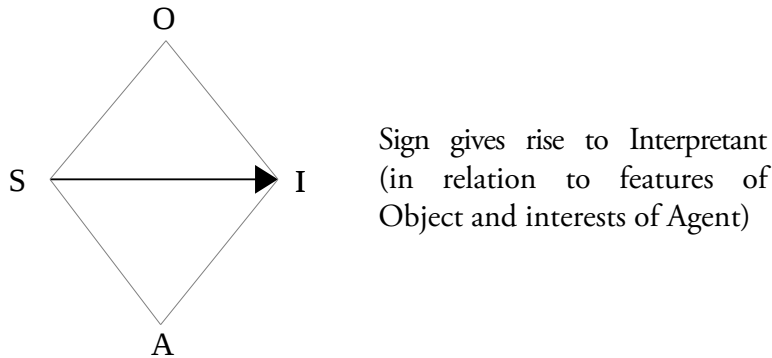


Figure 2: Causality and Semiosis

as semiosis ('fetishization') and semiosis can be framed as causality ('reification'), with more or less tension (*qua* symptoms of improper framings, themselves only available as 'symptoms' in a particular frame). And most actually occurring semiotic processes depend on long chains of causal processes; and many actually occurring causal processes turn on long chains of semiotic processes (where both such facts are functions of 'infrastructure' in an expanded sense). Such caveats aside, this will prove to be a useful distinction in what follows.

Figure 3 foregrounds the key components of semiotic processes, as introduced above. If we take S to mean 'sign' and I to mean 'interpretant,' the upper ellipse is usefully framed as an 'environment.' If we take S to mean 'sensation' and I to mean 'instigation,' the lower ellipse is usefully framed as an 'organism.' Putting both together as inseparably coupled, as per the encompassing circle, we have an *envorganism*. This entity is suitably simplified such that it may usefully scale to describe distributed and collective entities of various temporal, spacial and social sizes.

So much for semiotic processes, and their components [S, O, I, A] as figures. Let us now return to grounds (*qua* otherwise empty boxes behind

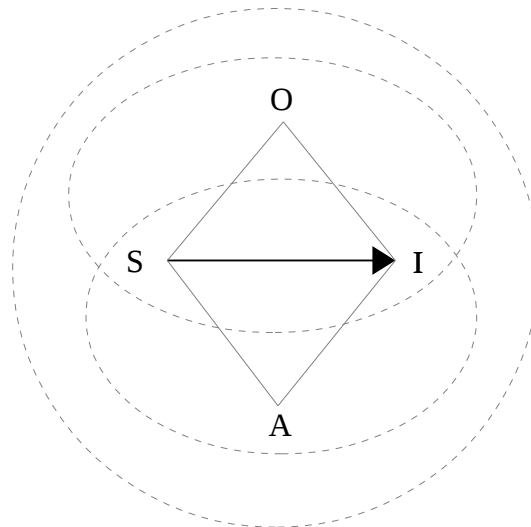


Figure 3: Environment, Organism, Envorganism

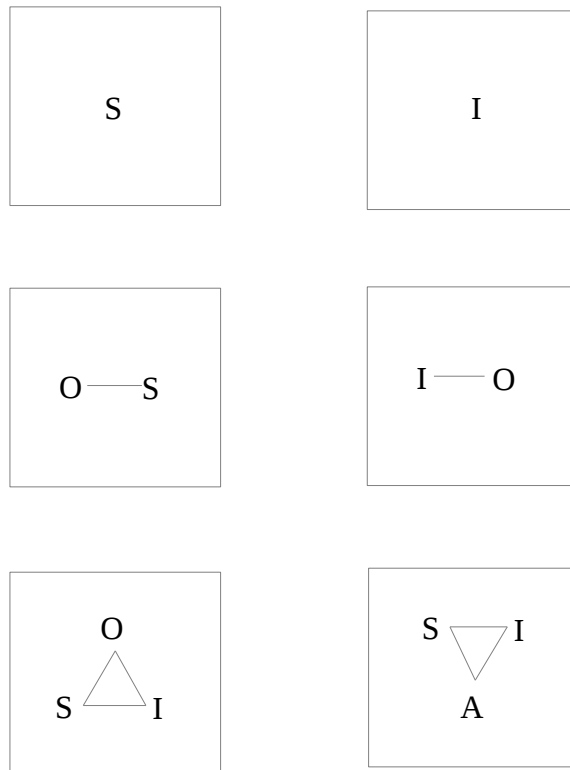


Figure 4: Figures and Grounds

the figures). Going from top to bottom, and left to right, in Figure 4, we have the following kinds of grounds. First, the sign [S] must be able to stand out in an environment (be a difference) and, concomitantly, be sensible to an organism. Reciprocally, the interpretant [I] must be able to stand up in an environment (make a difference) and, concomitantly, be instigatable by an organism. (Note, then, that the Gestalt intuition is true for action as much as perception. And thus to simply figure something as a sign or interpretant requires an enormous set of relatively backgrounded assumptions about the various propensities of organisms and environments.)

Second, following the usual Peircean formulation, the object must have qualities in common with the sign, be causally related to the sign, or be conventionally associated with the sign. Crucially, this O-S relation only holds *in a particular environment (qua ontologized world) and to a particular organism (qua worlded ontology)*. Reciprocally, the exact same issues arise in intervention [I-O] as in representation. Just as an organism cannot infer fire from smoke without reference to such a ground, an organism cannot act to extinguish fire by throwing water on it without reference to such a ground. Crucially, such assumptions (about qualities, causes and conventions) are as

likely to be embodied in an organism and embedded in an environment as they are encoded and enminded.

Third, a key question here is not “what is the object of this sign (given such a Peircean ground),” but rather “what is an appropriate and effective interpretant of this sign-object relation [S-O-I] given the ‘selfhood’ of the interpreting organism, with its distinctly reflexive modes of desire, affect, and accountability?” Reciprocally, a key question here is “why does the agent instigate the way it does in the context of sensing what it does [S-A-I] given the ‘otherhood’ of the sensed environment, with its distinctly complementary qualia, affordances, and properties?”

To understand semiotic processes (*qua* figures) one needs to have access to these grounds. And to know such grounds and, in particular, to know about transformations over time in such grounds is, in no small part, to know much of what there is to be known about a given form of life (and, while we’re at it, life-form). Needless to say, human-specific modes of semiosis are especially fabulous precisely because they can be used to figure their own grounds, not just by implicitly showing them but also by explicitly stating them.

See Figure 5, which simply rotates the envorganism, blows up the O-S ground (thereby showing some of its fine structure), and examines characteristic differences in that ground as a function of whether the agent is an archaeologist or an astrophysicist. As may be seen, part of what makes archeology so difficult is that to get to Big O, they need to go through a long line of not just cause-effect relations, but also sign-interpretant relations. (Recall Figure 2.) And to get through such sign-interpretant relations (themselves interrelated with various other objects and agents), they need to already know quite a lot about the six grounds just described. But here’s the rub: it’s often precisely those grounds that constitute Big O—that is, precisely what they’re trying to find out about. In some sense, they need to have already gotten where they’re going in order to get there. And if you think semiotic processes, such as verbal language and gesture, *qua* big L, are soft in comparison to bones and stones, *qua* little l, these grounds are usually far, far softer than such stereotypic figures.

So what do archaeologists do in the face of such difficulties? Well, one possibility is to find the archaeological equivalent of reflexive language—a modality of material culture in which its own grounds get figured. And the intentional grave, *qua* burial ground, is probably as close as can be. Another possibility is this: if you can’t find something that lives forever (or even ever really shows its face in the first place), find something that is perpetually born again. And what is born again? Common ground or, in this case, common grounds. And, indeed, what is perhaps most interesting about archeology is not their findings *per se*, nor even the history of their findings, but rather

the genealogy of the common grounds that they had to presume in order to find anything in the first place. We might call the discipline that studies this genealogy arch-aeology. And we might say that one reason archeology as a discipline has proven to be particularly enduring—and thus ‘hard’ in a fifth and final sense—is that many of its members are arch-aeologists as much as archaeologists.

Yale University

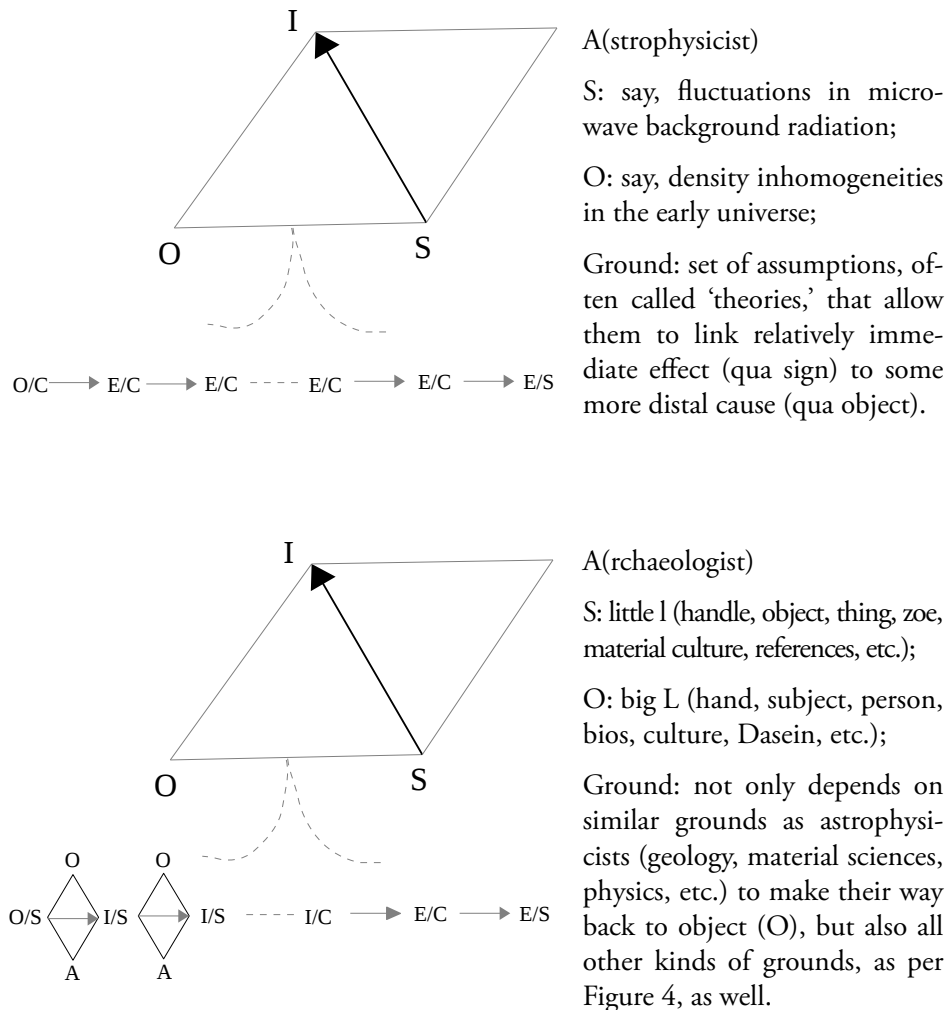


Figure 5: Archaeology and Astrophysics