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Soils, Sediments and Landscapes of Dwelling: Geoarchaeology and the Symmetrical Project

Symmetry; landscape; taskscape; assemblages; facies; chaîne opératoire; geoarchaeology.

On the ebb of the postprocessual wave, archaeology finds itself in a state of transformation. Echoing developments in the (other) social sciences and the humanities, archaeology's focus shifts from hermeneutics, the decoding of the content and meaning of things, to material things themselves.¹ In the course of this shift Cartesian dichotomies that underlie the edifice of archaeology are questioned. The world is re-imagined as neither a process-response 'system' (the dominant image of processualist thought), nor as a 'text' (the constant postprocessualist metaphor), but as a symbiotic collective, consisting of, and co-shaped by, several actors: organisms, with humans among them, inanimate things, and processes of change, cyclical and episodic. This exercise in analytical levelling goes by the (provisional) term *symmetry*.²

Geoarchaeology and the Symmetrical Project

Archaeology is internally diverse; its variants are unequally compatible with a symmetrical vision. So far, much of the discussion on symmetry has remained theoretical and programmatic, while geoarchaeological (and other environmental-archaeological) practice continues to pursue its well-trodden path of 'human-environment interactions'. This may be (partly) due to the (self-) identification of environmental archaeology as an assortment of natural-scientific methods,³ whose role in the wider archaeological discourse is only auxiliary. Geoarchaeology is called to employ the methods of the earth sciences in order to arrive at data, facts, and scientifically inferred 'truths' about a 'natural' world. This world is imagined as a distinct, self-standing pole of the 'human-environment relationship', underpinning that sphere of human activity (social/cultural) construed as the ultimate focus of archaeological enquiry.

This article argues that, instead of being the helpmaid of a 'higher', theoretically informed archaeology of the social/cultural, geoarchaeology (and other environmental archaeologies) can become ecological archaeology *tout court*⁴—a crucible of the symmetrical project. This transformation hinges on our willingness to re-imagine our subject matter, sediments, soils and landscapes of dwelling, and our engagement with it.

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1 e.g., Boivin 2008.

2 Gonzales-Ruibal 2006; Witmore 2008.

3 Head 2008; Jusseret 2010.

4 *Sensu* Gonzales-Ruibal 2006, 110.

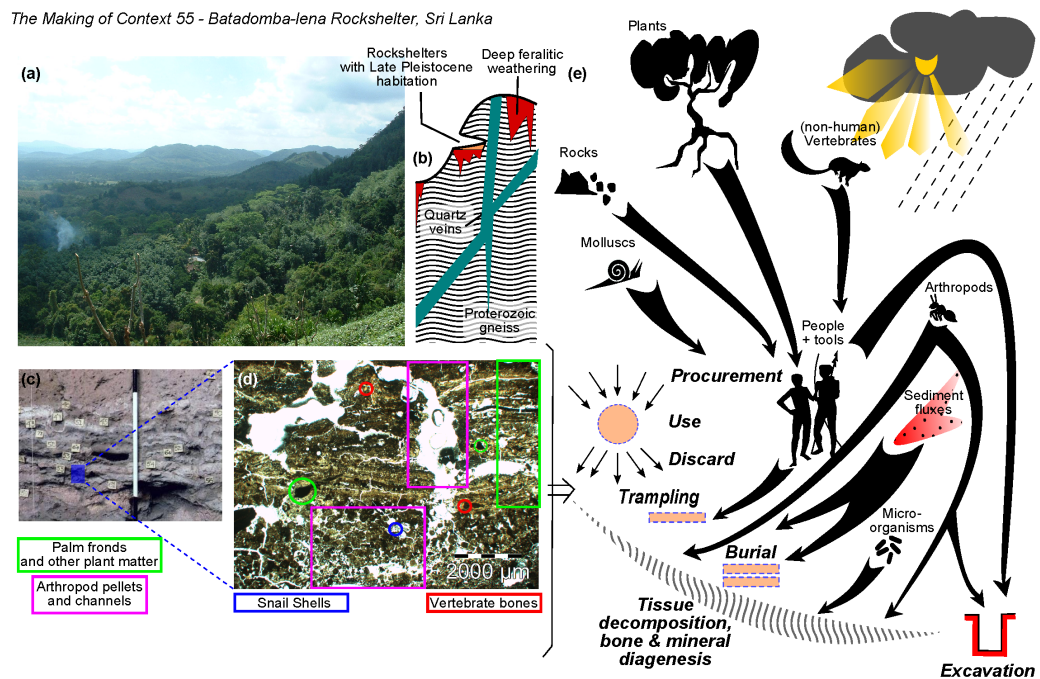


Fig. 1 | The making of archaeological sediment in context 55, a Late Palaeolithic (ca. 15,500 cal. BP) deposit at Batadomba-lena rockshelter, Sri Lanka. (a) View from the rockshelter entrance. At the time of context 55 deposition the surrounding vegetation probably was tropical evergreen forest (Perera et al. 2011). (b) Summary of the regional geomorphic/geological setting. (c) Late Palaeolithic habitation deposits, comprising hearths and other trampled floor debris. (d) Thin section of context 55 (for location see frame in c) and its main constituents. Trampled food remains and partly burned plant fronds (from plant-derived artefacts?) are reminiscent of debris accumulating around structured living spaces (hats, mats, sleeping platforms) of the ethnographic present. (e) Summary of some of the proximate actions embodied within the few square millimetres of sediment shown on (d). Only few of the actions manifest at this scale of observation are shown, and interactions between non-human actors in the rainforest ecosystem are omitted. The phases of *procurement*, *use* (including re-use) and *discard* implicate people with (other) organisms, minerals (quartz, chert, ochre) and the artefacts made from all the above into a Late Palaeolithic collective. At a larger scale, each sedimentary unit, up to the entire rockshelter fill, embodies a multitude of actors, implicated with criss-crossing webs of action. Flows of action do not cease with sediment deposition.

Sediments, Soils and Landscapes as Bodies and as Ghosts

If sediments, soils and landscapes are not texts, records inscribed with human action, what kind of things are they? The following is a (provisional) descriptive statement:

Sediments, soils and landscapes are heterogeneous collectives of living and non-living things and processes (1), assembled through acts of dwelling in the world (2). These collectives are temporal; within them time is immanent (3). Their temporality is what enables things of the 'past' to act on those of the 'present', thus collapsing successive stages of historical time into a state of ever-presence, haunting (4).

Heterogeneous Collectives

Sediments, soils and landscapes comprise a multitude of disparate things, living and non-living. These things act upon, through and by means of each other, while responding to, and mediating, actions of entities and processes whose reach extends well beyond sediments, soils and landscapes (e.g. the weather and climate, changing sea levels, tectonic

movement: Fig. 1). It is in this sense that sediments, soils and landscapes are quintessentially social: not by virtue of possessing some kind of ‘sociality,’ a mysterious property imprinted upon them by the action of past and living humans, but by virtue of being associations of actors interlocked in networks of action.⁵

Assembled through Acts of Dwelling

Living things *dwell* in the world. In Tim Ingold’s meditation on the landscape, dwelling is equated with being-in-the-world, an array of practices that include and ground “*the activities of building—of cultivation and construction,*”⁶ and, one could add, any other action living things undertake to make their allotment of the world and their bodies fit for each other.

The material things that come together in sediments, soils and landscapes are the products, and at the same time the ways and means, of dwelling—of humans as much as of numerous other dwellers of the shared world (Fig. 1). Landscapes, with their constituent sediments and soils can, thus, be understood as *taskscape*s: embodiments of the interlocking *tasks* of dwelling of their inhabitants.⁷

In which Time is Immanent

Taskscape are “*pregnant with the past.*”⁸ Their immanent time is not merely the sequential, steadily-flowing calendar time of history and geochronology, but also time generated from this very ‘*business of dwelling,*’ the ensemble of interwoven tasks, complex cycles of interaction between interdependent actors as they perform their existence. These time-infused taskscape (with their soils and sediments) resonate with the existential rhythms of the non-living as well as of the living, with the totality of rhythmic phenomena, animate and inanimate. Once again, landscapes are social due to their very existence as a result of the “*mutually attentive engagement*”⁹ of people and other living things.

And, by Virtue of this, Haunted

The linkage of things and people, the dead, the inanimate and the living, with networks of action constitutes a state of haunting: ‘former’ (in terms of chronology’s sequential time) states of soils, sediments and landscapes are implicated with, and acting upon, present ones; ‘earlier’ fabrics of association and interaction are present *in-deed*, not as inert scripts but as ghosts.

The ghosts that haunt soils, sediments and landscapes are not mere symbols, but material things, embodying relationships of action, cause and effect and, on occasions, deliberate agency. Geoarchaeology’s ghosts *are* bodies. As such, they are parts of the world of things and processes, subjected to its ‘natural laws’ and, therefore, knowable—to the extent that things of the world are knowable—through scientific investigation.

5 Cf., Latour 2005

6 Ingold 2000, 185–186.

7 Ingold 1996.

8 Ingold 1996, 153.

9 Ingold 1996, 160.

Geoarchaeology among Things

Geoarchaeology is endowed with operational concepts that facilitate the reassembly of past collectives and the narration of their constituent acts of dwelling. The concepts of *assemblage* and *facies* and an extended version of *chaîne opératoire* strike me as particularly relevant.

Assemblages and Facies

The concept of *assemblage*, the totality of significant objects (artefacts, animal remains, etc., depending on analytical focus) found in association, originated in the (linked), early 19th century beginnings of palaeontology and archaeology as object-focused studies of the past. Although lost to modern usage, a notion of playful interaction is implicit in the term's etymological ancestry: in Old French and Middle English, the verb *assembler* stood as a euphemism for sexual coupling.¹⁰ This ancient metaphor for the playfulness of thing-to-thing intercourse, and the unpredictable potentialities this engenders, brings us to the reconfiguration of the assemblage concept in contemporary post-textualist social theory. Extended to include the totality of (sampled) objects at a site, archaeological assemblages are not immutable arrays of inert objects but dynamic associations of interacting things—what Deleuze and Guattari describe as *hodgepodes* of interpenetrating bodies.¹¹

A related concept is that of *facies*, originally defined by Amans Gressly in 1838, as a sediment's 'aspect:' the totality of its observable characteristics, both lithological and biological.¹² *Facies* has since been extended to include the totality of (observable) *attributes* and *components* of a sediment, a soil (*pedofacies*), or even extensive rock masses of variable origins (*tectonic facies*).

Unlike the concept of assemblage, which lifts significant objects out of their matrix, extracting them, as it were, from the (by implication meaningless) dirt that encases them, *facies* is intrinsically symmetrical. It encompasses the sediment/soil collective in its full material variability: not just distinctive objects of special interest, but also the matter within which these objects are encased. By affording a more level, un-structuring gaze at geoarchaeology's peculiar things, *facies* may, thus, serve as an analytical, enumerative expression of sediment/soil/landscape materiality.

Chaîne opératoire

A concept born in material culture studies, *chaîne opératoire* ("operational sequence", "chain of operations") refers to the successive stages in an artefact's use-life, from procurement of raw material to discard.¹³ This concept encourages approaching the making, use and discard of things as a discursive practice: every stage in an artefact's life is understood as the result of choices, made by individual human agents. It is precisely the promise of charting past agency through the minutiae of object making and use,¹⁴ that renders *chaîne opératoire* analyses so useful to those variants of archaeology that strive to reconstruct past personhood from its material residues.

Like handaxes, beads and beakers, hearths, houses and fields are also (co-)produced sequentially, through their use, abandonment and reuse, in sequential entanglements of people with other living and non-living things, embodying the agency of their participants. Extending the concept of operational sequence from its 'traditional' domain of

10 Harper 2012 (accessed 15 March 2012).

11 Philips 2008.

12 Cross and Homewood 1997.

13 Leroi-Gourhan 1964; Shott 2003.

14 Ross and Steadman 2010.

(mainly hand-held) artefact analyses to all material transformations of the world in which people participate¹⁵ may provide a framework for tracing, ordering in time and narrating the acts that made ancient sediments, soils and landscapes.

Nonetheless, geoarchaeology's complex, multi-authored things tend to differ from artefacts that traditionally fall within the remit of material culture studies in, 1) *scale and complexity*; 2) *the number of their makers and users*; 3) *the ad hoc character of their making*. Negotiated between so many different co-workers, the making of soils/sediments/landscapes is a highly ramified process.

Conclusions

Engaging with archaeological sediments, soils and landscapes as things-in-themselves, rather than mere records of human agency and environmental forcing, can make geoarchaeology's stories richer and more congruent with the realities of the inhabited world. The intrinsic symmetry of the peculiar collectives that constitute geoarchaeology's subject matter renders geoarchaeology central to the symmetrical project. The operational concepts of assemblage/facies, part of geoarchaeology's theoretical endowment, and *chaîne opératoire*, imported from material culture studies, may facilitate this engagement. In any case, a symmetrical geoarchaeology will be ecological archaeology *tout court*.

15 Cf. Lemonier 1992.

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