

Fossilisation

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In natural history, fossils provide important evidence of past life forms and their activity (Pellant 1990). Things like ammonites, trilobites and graptolites are the tangible remains of what were once living beings. Although their original chemical composition has changed, the physical structure is often perfectly preserved through a process of petrification. Accordingly, there is a sense in which these creatures have a continuing material existence despite being well and truly dead.

In this essay we make the case for appropriating and applying metaphors of fossilisation to the study of social life. We do so in order to correct an astonishing imbalance in analyses of social change. While innovation studies is a recognised area of research and scholarship and while much has been written about the emergence of new social and technical arrangements there is as yet no equivalent field of socio-palaeontology.

Although we are surrounded by the enduring traces of defunct social practices we know comparatively little about the detailed dynamics of dissolution, obsolescence, partial preservation and occasional resurrection: for the most part, the new is simply assumed to take the place of the old. As with natural history, the systematic study of social fossils promises to shed new light on the missing cultural processes of petrification.

Making and breaking links

Where to begin? Ironically, innovation studies is as good a place to start as any. Schumpeter claims that entrepreneurs innovate by combining, relating, integrating and organising pre-existing but previously separate elements in novel ways. We might take issue with aspects of this argument, for example by noticing that consumers and users are innovators too. Yet the notion that innovation is in essence about making new combinations of existing elements can be turned around to generate the parallel suggestion that social-fossilisation is in essence a process of *breaking* existing combinations of existing elements. This leads to the further proposition that social fossils are materials, ideas or skills that once formed part of an integrated social practice but that have become separated and stranded.

Authors like Giddens (1984), Schatzki (1996; 2002); de Certeau (1998) and Warde (2005) represent practices as relatively enduring entities held together by sets of norms, conventions, ways of doing, know-how and requisite material arrays. In keeping with this approach, Reckwitz defines a practice as “a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood.”(Reckwitz 2002 :250). By implication, artifacts, ideas and forms of competence only have meaning and effect (they only live) when integrated into practice. In other words it is through the integrative work of “doing” that elements are animated, sustained and reproduced. When that stops, fossilisation sets in.

These ideas imply that fossils need not only be material: ideas and types of know-how can also be dislocated and left behind as practices evolve. At this point it is useful to introduce an illustrative example.

This object [include picture of biscuit press] had been abandoned at the back of a cupboard for so long that its function was not immediately obvious. It turns out that it

was (is) a press used for extruding biscuit dough to make fancy cookies. Exactly like a trilobite in perfect condition, it clearly existed and yet it was effectively dead. It was so because critical links had broken: one with necessary forms of competence, the other with the very idea of investing time and energy in making fancy biscuits at home. It is easy to begin this story with the object. However, one might also say that it is the tacit and embodied competence of dough extrusion (not only the object) that has been petrified through lack of regular reproduction. Few now have the skills and those few who do are unlikely to pass them on. Alternatively, and equally convincingly, we might start with reference to the mass production of food and the consequent transformation, and in many cases redundancy, of home baking. The point is that the practice is held in place not by the object, the know-how or the idea but by the active integration of all three. When one link fails, the entire system begins to crumble.

As with fossils in natural history, the soft parts of practice (specifically forms of competence and symbolic meaning) fade from view leaving the material remains behind. In a few years, the press might end up in a museum. If this was a museum of living history, someone might figure out how to make biscuit dough of just the right consistency and on special occasions the requisite know-how would be momentarily resurrected and reproduced. But not the routinised expectation of home baking, and not the equally routinised meaning of what that involves and signifies. Now that the ties have been broken it is difficult to imagine a situation in which the necessary elements might be reintegrated such that the press could really live again.

Aspects of the (social) fossil record

The social-ecological landscape is changing all the time and it is important to recognise that seemingly stable practices require constant reproduction if they are to persist. It is surely not the only source of destabilisation, but technological substitution is one of the more visible forces of systemic redundancy. Biro's replace the fountain pens that replaced the quill. Three allen keys replace the set of spanners previously required to take a bicycle apart. With the ubiquity of camping gaz and of electric cookers the craft knowledge of how to light a primus stove evaporates. And so one could go on. There is more to be said about material transformation and extinction but rather than following that route we turn our attention to the fossilisation of redundant images, symbols and embodied knowledges.

Imprints of practice

The conventional fossil record includes footprints, tracks and burrows along with shells and wings and bones. Can we spot imprints of practice equivalent to the marks of prehistoric activity that have been stamped in rock? As in nature, the conditions are quite demanding for the challenge is to identify preserved traces of elements that exist fleetingly through enactment and embodied performance. Such evidence is often in the highly mediated form of instruction and inscription. We can, for instance, glimpse - but not really reproduce - extinct forms of dance, the skeletal outlines of which are set in the amber of outdated styles of choreographic notation. As Guest (1989) explains, notation systems which served the 18th century well fell into disuse as the types of dance for which they were designed went out of fashion. With this as with so many other forms of codification, writers inevitably "took for granted a certain amount of knowledge on the part of the reader; thus much important information was left out" (1989: 21). The outlines of the steps are there but it is as impossible for the social-ichnologist² to do the dance as it is for natural scientists to reproduce the slouch or swagger of a dinosaur from prints left in the mud.

Living fossils

Another possibility is that the past lives on in the practices of today. If this is so, we might be able to identify what Charles Darwin described as "living fossils" (1859: 486), these being creatures or plants that have remained pretty much unchanged for millions of years. What, then, are the horseshoe crabs³ of everyday life and what are their trilobite ancestors? Other examples would do as well, but a few comments on Morris dancing allow us to explore this idea. Morris dancing is a type of English folk dancing that was especially popular in the 16th century and that is widely believed to have its roots in Druidic fertility rituals. Although the ancestry of Morris dancing is subject to much debate we might nonetheless conclude that it is indeed a kind of "living" fossil. Viewed in this way, contemporary Morris dancing is a lifeless business: a ghostly, zombie like reproduction of an activity no longer embedded in a sustaining network of meaning and purpose.

On the other hand, John Forrest (2000) makes the persuasive argument that Morris dancing has been subject to endless local variation and to a process of evolutionary development that arguably continues today. Since folk dancing only ever exists through enactment, the Morris dancers of the present are engaged in a perfectly lively, perfectly ordinary practice through which concepts of history and tradition (rather than fertility and luck) are maintained and reproduced. In other words, the practice has been transformed but it has not died.

This little excursion into dancing reminds us that practices only exist as long as they are carried on by real people. On reflection we were perhaps too quick to report the (absolute) death of the biscuit press. It might not be as common as it once was but some people still do make biscuits at home and companies making new biscuit presses are still in business.⁴ In order to understand the dynamics of social fossilisation we need to take note of the niches in which practices persist and consider the detailed dynamics of recruitment and defection.

Fossilisation in action

We invited participants to a recent workshop⁵ to bring with them items that were once indispensable but that had fallen out of use. The resulting catalogue included a bottle of ink, a spanner, a scalpel, a photocopy card, a child's bicycle seat, an address book, the battery from an electronic device used in training a dog, a diary, a blow lamp, a zip disc, correction fluid and some clothes pegs. Some of the accompanying stories had to do with generic forms of technological obsolescence but others reflected changing personal circumstances and projects.

The bicycle seat is a good example of an item that was momentarily moribund.⁶ The seat in question had been outgrown by the child for whom it was acquired but it could still be useful, vital even, to another smaller person. There are two points to notice here. First, what is a fossil for one person can be indispensable part of another's way of life. Redundancy is situated as well as systemic. Second, and in a way more important, bicycle seats continue to be firmly integrated into contemporary culture even though that integration is sustained by changing cohorts of young children and their parents. It is when this 'normal' turnover of carriers fails and the flow of new recruits dries up that the bicycle seat - as a class of objects and as an experience of riding and being carried - becomes endangered.

The details of case-by-case defection or recruitment are fundamental to and are in a sense inseparable from seemingly larger scale processes that result in the mass

extinction of skills, objects and accompanying ideologies. The personal address book provides a fine illustration of this duality and of fossilisation in progress. As described, this particular address book [include picture] had fallen from use for a number of interconnected reasons. One was that friends (more than family) were moving so often that it was difficult to keep revised entries in proper alphabetic order. Another was that having a permanent record of someone's address was of decreasing significance. Contacts were made and renewed by mobile phone, face-to-face or by email, not by post. Knowing an address matters when paying a visit, but this had become an ephemeral detail: something one would ring up to check when required but that was not worth noting for the future. With phone numbers stored in the phone and emails kept in the computer, who needs an address book?

This case is instructive in that it shows how network-based systems (email, mobile phone) transform and are transformed by personal routines, the net effect of which is to break down the web of social and material arrangements of which the address book was a part.

An agenda for socio-palaeontology

In thinking about processes of fossilisation socio-palaeontologists of the future need to specify how routines and habits (life forms) disappear. How and in what situations do the outlines of practice harden and how are moments of living social interaction turned to metaphorical stone?

As already indicated, there may be scope to borrow conceptual resources from innovation studies and invert them to good effect. If they are to succeed, innovations in practice have to secure resources and capture suitably committed followers. This is often a process of re-alignment and displacement and there is a sense in which the process of making new links is inevitably one of breaking existing ties. Even so, it may be necessary to think again about the types of agency involved in dismantling rather than engendering new products, ideas and forms of competence.

Although they are likely to deal with the more visible results of fossilisation socio-palaeontologists must not artificially separate the material (or material culture) from the social practices of which it is (or was) a part. To do otherwise would be to confuse the outcome of fossilisation with the processes involved.

In addition, students of social fossilisation should be on the look out for dormant but not necessarily extinct images, ideas and skills. What are the possibilities of resurrection and in what circumstances might the biscuit press, the address book or the primus stove spring back to life? What if elements return but in new combinations: in what sense can Morris dancing of the 16th century be compared with the Morris dancing of the 18th century or of today? Where are the points of no return?

Finally, it will be important to make the most of natural history and the ideas, experience and metaphors it has to offer. There is, for instance more to learn about sequence and temporality and about incremental and catastrophic change. Does greater interdependence of practices increase the chances of fossilisation? Are more items, ideas and skills subject to social petrification now than in the past? What is the rate of fossilisation in contemporary society? These are just some of the questions that have yet to be addressed.

References

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Notes

- 1 This contribution draws upon "Designing and Consuming: objects practices and processes", a project supported by the ESRC/AHRC Culture of Consumption Programme award number. RES 154 25 0011.
- 2 Ichnologists are those who study fossilised tracks:
http://news.nationalgeographic.com/news/2003/03/0307_030310_dinotracks.html
- 3 By all accounts, horseshoe crabs have not evolved much in 250 million years.
- 4 For example, the Italian company Marcato: <http://www.marcato.net/mod-ContentExpress-display-ceid-1.phtml> (accessed 1.8.05)
- 5 This was part of the ' Designing and Consuming' project funded by the ESRC Cultures of Consumption programme: see <http://www.dur.ac.uk/designing.consuming/> for further details.
- 6 The clothes pegs and the blow-torch were also temporarily redundant as a result of changing personal circumstances.