

Taphonomy, experimental archaeology, and ethnoarchaeology

© Copyright Bruce Owen 2009

- Again, this material (Chapter 8) is pretty straightforward, so I will not say much about it here
- A few concepts and terms to focus on:
 - Beware of “common sense” interpretations of artifacts and patterns.
 - as Kelly and Thomas note, “common sense” really means “knowledge of one’s own culture”
 - it might not be correct for another culture or setting
 - Archaeology itself cannot determine what behaviors produce what material evidence
 - as archaeologists, we only have the material evidence, with no way to independently check our interpretations of it
 - So we have to rely on “middle-level research” to produce analogies and “middle-level theory”
 - the evidence and arguments that indicate what behavior we should infer from the evidence
- **Analogy, or ethnographic analogy**
 - an interpretation based on the similarity between archaeological evidence and evidence ethnographically observed together with associated behavior
 - Ethnographic artifact or evidence X has characteristics A, B, and C, and has function or interpretation Z
 - Archaeological artifact or evidence Y has the same characteristics A, B, and C
 - so we use the analogy to infer that archaeological evidence Y has the same function or interpretation, as well
 - an analogy is suggestive, but does not prove anything positively
 - an analogy is stronger (more convincing)...
 - the more similarities there are between the archaeological and ethnographic evidence
 - analogies based mostly on similarity (similar forms) are **formal analogies**
 - the more historically related the ancient culture and ethnographically observed culture are
 - that is, if the ethnographic culture developed directly from the archaeological one, then analogies are pretty convincing
 - because the same practices might have simply continued in use
 - if they are similar but on different continents, the analogy is weaker
 - because the practices would have to have evolved independently
 - analogies based on cultural continuity (relations between the cultures) are **relational analogies**
- **Middle-level theory**
 - a kind of analogy that explains *why* the evidence implies the interpretation
 - vs. simple analogy, which just notes that in some observed case, it does
 - so middle-level theory is more convincing than plain analogy
 - we can tell *why* a given interpretation should be so, and in what cases it should not
- Some kinds of middle-level research:
 - **Taphonomy**: study of natural processes that produce aspects of the archaeological record

- essentially the same as the study of site formation processes
- but tends to focus more on natural processes that produce patterns in the evidence, while site formation studies often emphasize processes that disturb the evidence
- often useful to show that certain patterns can be caused by natural processes, not necessarily by people
 - if a thorough taphonomic study *cannot* find a natural explanation for a pattern, then people are more likely responsible
- example: how skeletons of animals decay, and patterns of bone loss and damage that result
- **Experimental archaeology**: doing experiments to determine what kinds of behaviors can produce what kinds of evidence, and why
 - examples:
 - trying different methods to make Folsom fluted points to see
 - which work
 - which produce the same kinds of evidence as is actually found
 - learning to hunt with bow and arrow, or with a spear thrower
 - to learn what these methods are capable of
 - what kind of prey can be hunted
 - what their limitations are
 - how much labor, skill, time, etc. they require
 - what kinds of evidence they produce, etc.
 - **use wear** or **microwear** studies
 - use a stone tool made of a certain material for a certain kind of task on a certain kind of material for a certain amount of time
 - then look carefully at the chipping and polishing on the tool
 - some kinds of wear on some kinds of stone turn out to be typical of some kinds of use
 - so we can then look at artifacts with those kinds of wear and infer their use
 - unless there was some other use or material that we have not thought of that produces similar use wear...
 - like analogies, experiments rarely prove that something did happen
 - but they can show that certain hypotheses do *not* work
 - and can show which hypotheses are reasonable and worth further checking
 - often give us insights into processes that we would not get without having tried them
- **Ethnoarchaeology**: observing living people to see what material evidence is produced by their activities
 - typically, people with a lifestyle similar in some way to those whose archaeological remains we want to interpret
 - example: living with a group of modern llama herders for a few months
 - recording what they discard, and where
 - what they leave behind in their camps,
 - how their dogs affect the garbage they dump, etc.
 - often produces “cautionary tales”: cases that show how complicated life really is, and what you *can't* assume
 - but also may produce middle-level theory, explaining *why* certain patterns are formed in the material remains