Examples of artefact biographies and a Chaine Opératoire

Biography - Artefact-1:

On 22-Jun-2005, while undertaking voluntary work for the America Research Center in Egypt, I found a shard of a earthenware Nile Siltware pottery vessel on an excavation spoil-heap's surface in the North-East corner of Medinet Habu (Mortuary Temple of Ramesses III who ruled 1184-1153 BC (Hayter, 2009)). Redmount (2001:249) reports that pottery shards are the most common material culture recovered from Ancient Egyptian sites.

The vessel, like most Egyptian pottery, was utilitarian and locally produced (Redmount, 2001:249). The need for pottery, to be compared with modern use of plastic and metal containers, was extensive and all hamlets, towns, all had local potteries. The shard's exterior (Dollinger, 2000) was covered with Slip (Figure-1), kiln fired and decorated with indented ridges (Figure-2) indicating the potter's fingers were used to produce the pattern. Newton (1996:207) confirms that potters wheels were used during this period which simplified the process of manufacturing of vessels with thin walls and decorative ridges.

The vessel's interior has undecipherable hand-written text (Figure-3) written in Hieratic, which is a cursive version of Middle Egyptian hieroglyphics language used from 2100 BC onwards (Allen, 2002:1) for non-religious

writing.

Literacy was uncommon outside of the exclusively male scribal/priestly classes, who spent one month-in-three serving the gods, and received payments to write requests to the Gods within vessels and to take these into the temple's sacred-enclosure for the Gods to 'hear' – where most people we're not permitted to enter.

Vessel/Priest
Temple
Schematic-1:

based on Douglas (1991)

Ancient Egypt was a cashless society where goods/services were bartered; it is likely that the Priest, to maximize personal profit, bartered with the Potter for the Vessel and again with the person purchasing the Prayer. Many religious complexes contain extensive pottery shards with written text on their inside-face - which Schematic-1 represents.

Biography - Artefact-2:

During March 1998 I visited Kauai, the oldest of the main Hawaiian Islands, with my family. My 4 year old daughter Róisín uncovered a piece of wood lodged in rocks by the shore-line (Figure-4).

The wood had been deeply carved on most of its semi-circular outer-face and the inner-face was inscribed (Figure-5) "Mark Hawai'i 1995" which indicated that was carved, at most, 27 months before it was found. The carving is similar to stylized representations of King Kamehaneha, who conquered the islands and established the Kingdom of Hawai'i in 1810, and the wood is most likely to be from the Acacia Kao tree.

The cross-section shows dense rings and, although part of the piece of wood is missing, over 60 rings are visible indicating that it originated from a tree dating from at least 1935.

Associated Meanings

These biographies can be classified into basic domains (based on Yentsch, 1996:317) and Artefact-1 concurs with Yentsch's identification of social inequality using ceramics (Preucel/Hodder, 1996:303):

Artefact-1: Pottery Shard

Access to the Gods	
Accessible	Restricted
Dirty	Clean
Female	Male
Faith	Faithless
Illiteracy	Literacy
Infrastructure	Superstructure
Physical Labour	Mental Effort
Proletariat	Bourgeoisie
Risk	Riskless
Secular Space	Religious Space
Worker	Scribal/Priestly

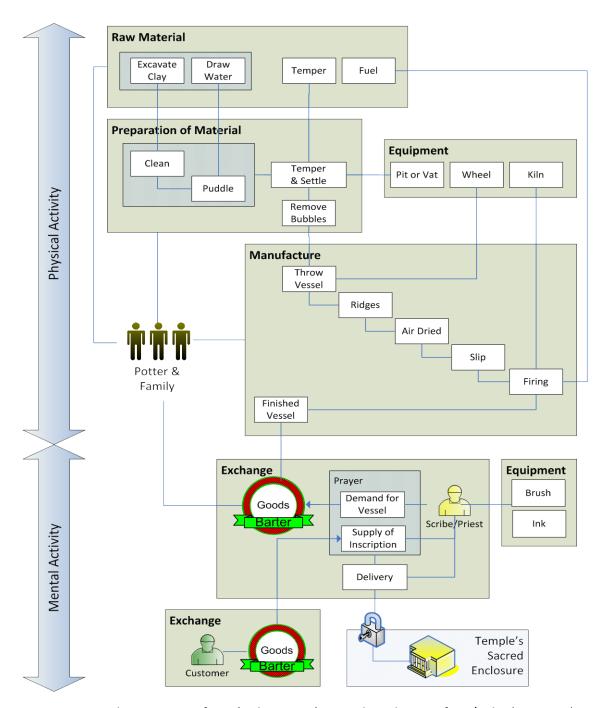
Pottery Vessels	
Utilitarian	Symbolic
No Slip	Slip
Plain	Ridges
Hand thrown	Wheel
Un-inscribed	Prayer

Artefact-2: Carved Wood

Wood		
Another	Acacia Kao	
Species		
Lost	Found	
No Memory	Memory	
Un-Carved	Carved	
Un-Inscribed	Inscribed	

Chaine Opératoire of Artefact-1:

The process of manufacturing a pottery vessel (Redmount, 2001:251-254), using Schematic and Annotated presentations, is:



Schmatic-2: Artefact-1's Chaine Opératoire based on Renfrew/Bahn (2008:394)

Raw Materials

The four basic materials, which were readily available along the Nile valley, are collected:

- a. Nile Alluvial clay from the river's flood plains
- b. water
- c. tempering material to make clay workable and less sticky, e.g. sand, mineral grains, calcium from shells, straw, or animal dung
- d. kiln fuel, typically animal dung

Preparation of Clay

- 1. raw clay is gathered and impurities are removed by crushing, drying and sieving
- 2. clay and water is slaked or puddled by potters treading the mixture within a vat or pit
- 3. tempering materials are added and mixed into the mixture before being allowed to settle
- 4. mixture may have required filtering into another vat or pit to remove impurities
- 5. mixture is exposed so that excess water evaporates leaving a solid mass of prepared clay
- 6. clay is kneaded to remove air bubbles (which causes vessels to crack during firing)

Making the Vessel

- 7. wheel is used to form the vessel, one person turns the wheel and another throws the pot
- 8. decorative ridges or patterns are made on the vessel's exterior

Drying and Finishing

- 9. vessel is air dried
- 10. if required handles, feet, spouts etc. are added
- 11. vessel may be re-turned to produce a smoother surface finish
- 12. Slip, mixture of pigmentation and water, is added to the exterior by dipping the vessel into the mixture

Firing

13. different firing techniques were used but this vessel is likely to have been fired using an conical updraft kiln (Figure-6) which was hearted between 500°C and 800°C and kept the fuel/vessels separate using fire-bricks



Figure-6: Egyptian Kiln, Renfrew and Bahn (2008, 342)

Exchange

- 14. Potter and Scribe/Priest meet and barter for the vessel; stock of vessels is delivered to the scribe/priest
- 15. Customer and Scribe/Priest barter for his religious services

Inscription

- 16. Scribe/Priest inscribes the vessel with a prayer using a reed brush and black-ink
- 17. Scribe/Priest takes the vessel into the Temple's sacred enclosure and throws it on a pile of other vessels

Sacred intervention

18. If the Ancient Egyptians beliefs were correct the gods would judge the prayer and, if justified, satisfy the boon

The Satire on the Trades (Simpson, 1978:321-332) is a Ramesside didactic text on the virtues of becoming a Scribe and it describes the Potter as being "covered in earth ... where he burrows in the field to bake his cooking vessels. His clothes are stiff with mud and his headcloth consists of rags." Conversely the Scribe's role is described (Simpson, 1978:334-336) as being better than all other professions, demanding respect and with position and that there is "no scribe who is lacking in sustenance" - he is "on the path of God".

The Potter, along with other manual trades, ranked low in the social scale (Redmount, 2001:249), it was a trade passed from father-to-son – although, as a domestic or home industry, it was performed by all members of the household. The Scribe had social standing and would play a role within the sacred environment – which also administered the country, dispensed justice, and was the major land-holder (on the King's behalf). The Scribe is Bourgeoisie and the manual trades Proletariat; the scribe controlled valued resources, such as literacy and access to the religious spaces - the potter could only offer his labour and his produce.

Schematic-2 shows the complexity of processes and the physical activity required for the Potter to manufacture the vessel. The Potter bore the risk of this process; for example where one of the processes fail and physical effort was lost or that the Scribe/Priest may not require a vessel or would not agree equitable terms in a market where potter's and vessels were numerous.

Artefact-2:

With a single artefact it is difficult to deeply analyse the circumstance that produced the carving or the social context. The piece is attractive and of good quality carving I deduce that it was either lost or deliberately 'given' to the sea by the carver.

Materials

- 1. Select Acacia Kao log
- 2. cut log and divide split along its axis
- 3. sharpen knife

Carving

- 4. outer-face is carved, possibly as part of a carving class
- 5. inner-Face is inscribed with name and year

Lost and Found

- 6. symbolically thrown into the sea..?
- 7. sea 'throws' it into onto shore-line rocks
- 8. Róisín finds the carving and take it to Ireland

5.3 Commentary

To prepare the artefacts' Biographies and Chaine Opératoire has required numerous personal interpretations and deductions and I have applied my rational to their 'lives' because, as Hodder/Hutson (2009:165) explained, we must assemble our thoughts and interpretations to identify meaning – even if these are inevitably, if only partially, incorrect. Binford (1996:40) merges anthropology and archaeology and is convinced that "only direct exposure to dynamics - the ethnoarchaeological study of living systems ... does the archaeologist stand the best chance ... of giving meaning to the archaeological record" - although I could return to Hawai'i and trace the origins of Artefact-2, we must accept that the society that produced Artefact-1 is permanently lost and we must juxtapose knowledge and the artefact in attempting to explain its biography and Chaine Opératoire.

The period between Artefact-1's 'birth' and 'death' is likely to be only a number of weeks and Artefact-2 only span's of a few days. Although their initial temporal spans were short they were both resurrected and their mnemonic inherited from their original owners and supplemented by their finder's memories; they have become "aids to remembrance" (Jones, 2007:19) and as Saunders (2007:176) says they are an interaction between the animate (the finders) and inanimate (the artefacts) worlds.

These two simple artefacts demonstrate very clearly that I cannot perceive the artefacts as inanimate – they each retain a personality and a memory of their life or something that Jones (2007:20) defines as "traces of the past". The task of developing a biography and a structural analysis using Chaine Opératoire clearly has merit in helping me to think more critically about the stored memory of artefacts. I found a phrase by Wiessner (1990:107) revealing "style is a form of nonverbal communication through doing something in a certain way that communicates information about relative identity."



Figure-1: Cross-Section



Figure-2: Outer-face



Figure-4: Outer-Face



Figure-3: Inner-face



Figure-5: Inner-face

Bibliography

- Allen, James (2002) *Middle Egyptian: An Introduction to the language and Culture of Hieroglyphs*. Cambridge: Cambridge University Press
- Binford, Lewis (1996) Willow Smoke and Dogs' Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation in Preucel, R. and Hodder, I. (eds) *Contemporary archaeology in theory:* [a reader].Oxford: Blackwell Publishing, 39:60
- Dollinger, André (2009) *Pottery*. http://reshafim.org.il/ad/egypt/pottery/index.html (access 01-Dec-2009)
- Douglas, Mary (1991) [1972] Deciphering a Meal in *Implicit Meaning: Essays in Anthropology*. London: Routledge, 249:275
- Hayter, Simon (2009) *Ancient Egypt: Kings List, Chronology & Cartouches*. http://www.ancientegypt.co.uk/ (accessed 27-Nov-2009)
- Hodder, Ian and Hutson, Scott (2009) *Reading the Past: Current Approaches to Interpretation in Archaeology (third edition)*. Cambridge: Cambridge University Press
- Jones, Andrew (2007) Memory and Material Culture. Cambridge: Cambridge University Press
- Newton, G (1996) Analysis of Egyptian Pottery in David, Rosalie (ed.) *The Pyramid Builders of Ancient Egypt: a Modern Investigation of Pharaoh's Workforce.* London: Routledge, 207:214
- Preucel, R. and Hodder, I. (1996) Material Symbols in Preucel, R. and Hodder, I. (eds) *Contemporary archaeology in theory:* [a reader].Oxford: Blackwell Publishing, 299:314
- Redmount, Carol (2001) Ceramic in Redford, Donald (ed.) *The Oxford Encyclopedia of Ancient Egypt, Volume I*. Oxford: Oxford University Press, 248:256
- Renfrew, Colin and Bahn, Paul (2008) *Archaeology: Theories, Methods and Practice (fifth edition).*London: Thames and Hudson
- Saunders, Nicholas (2007) Memory and Conflict in Buchli, Victor (ed.) *The Material Culture Reader.* Oxford: Berg, 181:206
- Simpson, William Kelly (1978) *The Literature of Ancient Egypt: With Anthology of Stories, Instructions and Poetry (new edition)*. London: Yale University Press
- Yentsch, Anne (1996) the Symbolic Divisions of Pottery: Sex-related Attributes of English and Anglo-American Household Pots in Preucel, R. and Hodder, I. (eds) *Contemporary archaeology in theory:* [a reader].Oxford: Blackwell Publishing, 315:349
- Wiessner, Polly (1990) Is there a unity to style? In Conkey, Margaret and Hastorf, Christine (eds) *The Uses of Style in Archaeology*. Cambridge: Cambridge University Press, 105:112