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Underwater Cultural Heritage

UNIT 15

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Material Culture Analysis



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Cover photo: By studying the wooden elements of shipwrecks in detail, the characteristics of the original ship and the shipbuilding traditions used to construct it can be identified. © Martijn R. Manders

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UNIT 15

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UNIT 15

Author Andrew J. Viduka

Material Culture Analysis

Core Knowledge of the Unit

This unit aims to introduce students to the theories, methods and issues related to material culture analysis.

- On completion of the Material Culture Analysis unit students will:
- Be introduced to the topic of material culture analysis
- Gain knowledge of design and culture analysis theories, concepts, methods and issues
- Gain insight into how theories, concepts, methods and issues relate to materiality, education and learning
- Gain insight into how a material culture analysis can be used

Introduction to the Unit

Archaeology is about the systematic study of materials left behind by people in the past. Material culture analysis is, therefore, an important part of an archaeologist's everyday work. This types of analysis can and will be influenced by the theoretical models of archaeological interpretation, such as antiquarianism, processual and post-processual archaeology. The systematic study of artefacts, features, eco-facts and manuports can tell us much about past life. Further insight can also be gained by taking into consideration the context these objects are in. This unit will examine how theory and context not only influences the way we look at objects, but also how we interpret them.

1 Definitions

Archaeology can be considered as the study of the physical remains and traces of human activity, ranging from pottery and bottle fragments, to plough traces and cargo. It can be found on land and underwater, in structures (including, monuments, buildings and wrecks) or in the open field; they can be isolated finds, but also related to a context. To reconstruct past human life and culture a proper methodology must be used, so that as much information as possible can be retrieved from the source. To undertake analysis, excavated material culture has to be identified, interpreted. The data and information obtained has to then be 'translated' into something others can also comprehend.

Material culture encompasses the study of the creation, uses, meanings and interpretations of the tangible products of human endeavour. As any object can have many different values to a wide range of people, the study of material culture needs to be interdisciplinary in nature to take into account historical, iconographical, aesthetic, cultural, scientific and behavioural perspectives (See Unit 5: *Desk-based Assessment* and Unit 6: *Significance Assessment*).

The translation (archaeological theory analysis) of the material culture of a past people is done through subjective and/or objective interpretation, largely dependant upon the theoretical approach of the individual interpreting the material.

Suggested Reading

- Prown, J. D. 1982. *Mind in Matter: An Introduction to Material Culture Theory and Method*. Winterthur
- Portfolio, Vol. 17, No. 1. The University of Chicago Press, pp. 1-19.

2 Archaeological Theories

2.1 Antiquarianism

Possibly the most well-known archaeological theory is antiquarianism, which was the dominant paradigm for the 'interpretation' of material right up until the end of the nineteenth century. Antiquarianism is characterized by the detailed recording and description of a collection of artefacts, buildings or sites. This is strongly linked with the early periods of classical archaeology and museology (see Unit 16: *Museology*).

Antiquarianism is associated with the cabinets of curiosities that were so popular in the sixteenth and seventeenth centuries, and which subsequently formed the basis for several major institutions. The British Museum, for example, was founded in 1753 using Sir Hans Sloane's extensive collection of curios that ranged from manuscripts and drawings, to natural history specimens and antiquities from around the world.

Today, Antiquarianism is viewed as limited in its attempts at interpretation of the past societies which manufactured these materials.

2.2 Cultural-historical Archaeology

Cultural-historical archaeology developed in the mid to late nineteenth century (post-Darwin and the Industrial Revolution). The theory is based on the idea of different, yet distinct cultural groups which can be identified through their material culture.

Changes in the culture of a historical society were ascribed to the diffusion of ideas or migration and mixing of peoples. Elizabeth Wayland Barber (1994) in her book *Women's Work the First 20,000 years* utilized aspects of this theory. In her study of women's work in textiles, Barber explored the existence of the cultural characteristics of weaving and how they could be used to illustrate the spread of people and ideas.

Changes in a society's material culture can be viewed as being the result of either diffusion or migration. A diffusion of ideas could be assisted by trade, inter-marriage and other small scale movements of people. Migration can be categorized as large scale movements of people which could be also stimulated by war or through the act of war.

The concept of the independent development of ideas by other cultures was not integrated into this model. This became an issue of contention with evolutionary archaeologists who considered that the same idea could be independently concluded in different locations. John Giacobbe supplies a concise but detailed analysis of the current role of evolutionary theory in archaeological thought. See: www.nakedscience.org/evol1.htm (Accessed March 2012.)

2.3 Processual Archaeology

Processual archaeology was a rebellion against cultural-historical archaeology paradigms and its 'limited' interpretation of artefacts. The aim of processual archaeology was to move away from the simple description of material culture (to catalogue, describe and create timelines based on the artefacts), towards interpreting the material with the aid of quantitative methods of analysis.

Processual archaeology focused on more scientific and anthropological approaches to answer questions about past humans and their societies. This archaeological theory originated in America and England in the 1960s with Lewis Binford and David Clarke both publishing aspects of the theoretical approach. This alignment of anthropological ideas with archaeology is characterized by the oft quoted 'archaeology is anthropology or it is nothing' (Willey and Phillips, 1958, pp. 2).

Processual archaeological drew on the biology systems theory, which argued that knowledge about one portion of a system, enables knowledge of other components of a system to be inferred. The method enables study within a system and looks at a system's relationship and interactions with other systems, and the environment that these interactions are occurring in. See: <http://www.statpac.org/walonick/systems-theory.htm> (Accessed February 2012.)

Proponents of processual archaeology claimed that with the rigorous use of the scientific method it was possible to get past the limits of the archaeological record and learn something about how the people who used the artefacts lived. Thus the archaeological record evolved from data to interpreted information about the past.

2.4 Post-processual Archaeology

Post-processual archaeology originated in England in the 1970's with work by Ian Hodder (Trigger, 2007, pp. 450). Through his spatial analysis research of Iron Age and Roman Britain archaeological sites, Hodder concluded that even when using the processual approach, very different conclusions could be put forward from the analysis of the same data. In his view, this countered the assertion from processual archaeology theory, that only by using scientific method could objective fact be derived from the archaeological record (Johnson, 1999, pp. 98-99).

Post-processual archaeology took an opposing view to processual archaeology, in that it viewed data as not being objectively derived through the scientific method, but alternatively suggested that archaeological interpretation was inherently subjective and a product of the archaeologist's viewpoint. Mat-

thew Johnson stated that, 'post-processualists suggest that we can never confront theory and data; instead, we see data through a cloud of theory' (Johnson, 1999, pp. 102).

Essentially, post-processualism assumes that material culture will always be influenced by subjective views and as a result, conflicts with those that believe conclusions should be based on scientific objectivity.

2.5 Scientific Method

The scientific method refers to the process by which phenomena is investigated, resulting in 'reliable, consistent and non-arbitrary data'. The scientific method attempts to minimize the influence of the scientist's bias on the outcome of an experiment.

The scientific method has four defined steps:

- 1 *Observation and description of a phenomenon or group of phenomena.*
- 2 *Formulation of a hypothesis to explain the phenomena.*
- 3 *Use of the hypothesis to predict the existence of other phenomena, or to predict quantitatively the results of new observations.*
- 4 *Performance of experimental tests by several independent experimenters*

It is important that each of these steps must be repeatable, in order to dependably predict any future results.

See: http://teacher.pas.rochester.edu/phy_labs/appendix/appendix.html (Accessed February 2012.)

Within the scientific method there is the principle of full disclosure which aims to fully document and archive data. This data and methodology must then be shared, to enable other researchers and scientists to validate the original findings and check the reliability of statistics.

2.6 Hypotheses, Models, Theories and Laws

In the scientific method, the terms hypotheses, model, theory and laws have explicit meaning:

- *An hypothesis is a limited statement regarding cause and effect in specific situations*
- *The term model is reserved for situations when it is known that the hypothesis has at least limited validity*
- *A scientific theory or law represents an hypothesis, or a group of related hypotheses, which has been confirmed through repeated experimental tests*

Source: http://teacher.pas.rochester.edu/phy_labs/appendix/appendix.html (Accessed February 2012.)

Broad theories can often bring a number of independently derived hypotheses together in a coherent framework. This in turn may help form new hypotheses or place groups of hypotheses into context.

Suggested Reading

- Clarke, D. L. 1981. *Analytical Archaeology*, Second Edition. Colombia University Press.
- Johnson, M. 1999. *Postprocessual and Interpretative Archaeologies*. *Archaeological Theory: An Introduction*, Blackwell Publishers Ltd.
- Schnapp, A. 1996. *The Discovery of the Past: The Origins of Archaeology*. London, British Museum Press.
- Trigger, B. G. 2007. *A History of Archaeological Thought*, Second Edition. New York, Cambridge University Press, pp. 450.
- Willey, G. R. and Phillips, P. 1958. *Method and Theory in American Archaeology*. Chicago, University of Chicago Press.

Useful Websites

- Sir Hans Sloane: hanssloane.com/history.php (Accessed March 2012.)
- General systems theory: www.statpac.org/walnick/systems-theory.htm (Accessed March 2012.)
- Scientific Method: teacher.pas.rochester.edu/phy_labs/appendix/appendix.html (Accessed March 2012.)
- International Council of Museums: icom.museum/who-we-are/the-vision/museum-definition.html

3 Material Culture

Material culture is the manifestation of culture through material products, e.g. the production of objects, artefacts, relics, etc. It includes buildings, ships, tools and other objects that constitute the material evidence of (usually past) societies. It also considers natural materials that are unmodified (such as stone and ecofacts), human created materials (such as pottery and glass), as well as human remains (skeletal material).

Not importantly material culture not only exists in a context, but also helps form that context. It is not just a backdrop; it is instead the stage and props for human action (Randall McGuire, 1992, pp. 104)

3.1 What does Cultural or Anthropogenic Material Consist of?

3.1.1 Artefacts

An artefact is any object that was produced by a human. This can include everything from tools and toys, through to artwork, clothing, buildings and altered landscapes. Each artefact, regardless of its form, is inherently an expression of our human culture.

This tangible evidence of human culture is collected by museums (see Unit 16: Museology), though the vast majority of material culture exists outside of museums, in people's homes and workplaces and the surrounding landscape.

Stonehenge, one of the world's most famous artefacts. © Andrew Viduka



3.1.2 Features

Champion (1980, pp. 48) describes a feature as, 'any constituent of an archaeological site which is not classed as a find or a small find', i.e. any dug or built evidence of human activity.

3.1.3 Ecofacts (Biofacts)

Ecofacts are flora and faunal materials (natural materials) that have been used by humans (Champion, 1980, pp. 40). These materials, when recovered from archaeological sites or other sealed deposits, are relevant to the study of ancient environments and ecology. Examples of ecofacts include animal bones, seeds, shells, waterlogged wood and pollen.

3.1.4 Manuports

Manuports are unmodified natural objects transported and deposited by hominids; a primate from the family Hominidae, which includes modern man (*Homo sapiens*) and the extinct precursors of man. (Source: Collins English Dictionary.)

The word 'Manuport' is derived from the Latin words *manus*, meaning 'hand' and *portare*, meaning 'to carry'. Manuports are distinguishable by being of a material clearly foreign to the sediment deposit they occur in.

Suggested Reading

- Barber, W. E. 1995. *Women's Work: The First 20,000 Years: Women, Cloth, and Society in Early Times*. W. W. Norton & Company.
- Bryant, V. M. 1974. Pollen Analysis of Prehistoric Human Faeces from Mammoth Cave. *Mammoth Trumpet*, Vol. 18. No. 3. June 2003.
- Bryant, V. M. 1998. Microscopic Evidence for the Domestication and Spread of Maize. *Proceedings of the National Academy of Sciences*. 104.
- Bryant, V. M. 1998. Pollen Analysis of Ceramic Containers from a Late Iron Age II or Persian Period Shipwreck Site Near Haifa, Israel. *New Developments in Palynomorph Sampling, Extraction and Analysis*. American Association of Stratigraphic Palynologists Foundation. Contributions Series Number 33, pp. 61-74.
- Bryant, V. M. 2007. The Search for Starch Grains at Archaeological Sites. *Mammoth Trumpet*, Vol. 22. No. 4

- Champion, S. 1980. *Dictionary of Terms and Techniques in Archaeology*. Phaidon Press Limited, Everest House Publishers, pp. 48.
- Hodges, H. 1995. *Artifacts: An Introduction to Early Materials and Technology*. Gerald Duckworth & Co. Ltd.
- McNiven, I. J. 1998. *Aboriginal Archaeology of the Corroboree Beach Dune Field, Fraser Island: Re-survey and Re-assessment*. *Memoirs of the Queensland Museum, Cultural Heritage Series*, pp. 1-22.
- Randall-McGuire 1992. *A Marxist Archaeology*. Orlando, Academic Press, pp. 104.

Useful Websites

- *Hominid Definition*: www.collinsdictionary.com/dictionary/english/hominid (Accessed March 2012.)
- *Objects: Artefacts, Ecofacts and Manuports*: escrapbooking.com/escraps/objects/index.htm (Accessed March 2012.)

4 Material Culture Analysis

Material culture has a life history which can provide insight on:

- *Production (creation or making; the capacity of the society that enables this production)*
- *Function and style (continuity and change)*
- *Meaning*
- *Context*
- *Exchange (trade)*
- *Consumption*
- *Transformation (changing use)*

4.1 Production

Production refers to the creation or the making of artefacts. The investigation concerning the production evolves around the method that a certain object was made. In the aspect of material culture analysis, the study focuses upon what this object was made from. The analysis can be deepened by the concept of archaeometry, that is, by adapting techniques and knowledge in chemistry, physics, engineering, physical and biological sciences to find out the materials used to produce the studied objects. The analysis of production tells us about technological capability at the time of the producers; what these people could make and how they made it.

ADDITIONAL INFORMATION

1 *Artifacts. An Introduction to Early Materials and Technology (1989) is one of the most thorough and comprehensive examinations of production process, classifying the analysis by types of historical materials used to produce artefacts.*

Suggested Reading

- Hodges, H. 1989. *Artifacts. An Introduction to Early Materials and Technology*. London, Duckworth.
- (See Additional Information 1)



4.2 Function

Function refers to the use or purpose of an artefact, structure or site; what it was for or what it did for user. There are numerous points to consider when studying functions: The interrelationship between shape and function: i.e. shape indicates function and function dictates shape. For instance, a container has to be able to contain.

Assumption-based investigation: function is not always obvious or straightforward. What has been assumed as the function of a certain object might not be its direct or only function. In fact the analysis of function is based on presentism; that is, we believe that a certain object was used for a certain purpose in the past, considering the present day perspectives of our own culture, rather than considering the socio-cultural context of the society in which the object was created.

Changeability and fluidity of functions: functions can change over time or can be different in different cultures.

A conserved and assembled Viking Ship, Skuldelev 1, Viking Ship Museum, Roskilde, Denmark.
© Andrew Viduka



Ethnographical objects collected in the Pacific by the crew of HMS Pandora 1791. © Queensland Museum



In brief, when a function analysis is performed, it needs to answer the following points:

- Material (type)
- Morphology (shape or form)
- Production (or manufacture)
- Date (and provenance)
- Context (or relationship)
- Use life (use wear and residue)
- Analogy (or comparison)
- Experiment

The result of the analysis can provide insight on four primary aspects:

Function in everyday life: e.g. eating, drinking, human behaviour.

Function in diet: e.g. edible plants (almonds and carbonised grain), animal bones, items related to food processing and preparation.

Function in warfare: e.g. type(s) of ships and armaments.

Function in technology: e.g. technology utilised by ship itself or its cargo (See Additional Information 2).

ADDITIONAL INFORMATION

2 Cooperage is a term that describes the production of barrels or casks. On a sixteenth century Basque vessel wrecked in Red Bay, Canada, there was evidence of whale oil casks made entirely of organic components (Ringer, 2007, pp. 180-196). This particular type of barrel is liquid tight and known as dry cooperage. The recovered casks were made up of three main components: staves, heads and hoops.

Life on board the Warrior. © Andrew Viduka



Timber barrel from the Rapid (1811) being assembled post-conservation. © Western Australia Museum



When analysing the functions of a ship, we need to divide it by its main components based on different functions (Reinders, 1988):

- The ship itself, e.g. anchors and rigging
- Equipments in the ship, e.g. cargo handling gear (davits and winches) and armament (gun and ammunition)
- Inventory, e.g. navigational instruments, galley, victuals
- Objects associated with the crew and passengers, e.g. personal possessions
- Cargo, e.g. trade

4.3 Style

Style refers to the distinctive pattern or decoration on an artefact, structure or site.

- Style can change depending on time, culture or specialist
- Style plays a significant role as the basis for typology, classification or categorization
- Chronology and temporal change
- Seriation (change in style over time)
- Continuity (tradition and persistent technology)
- Change (innovation and variation)
- Style as social communication (recognition, making sense of the world)
- Common understanding (cultural norms)
- Style as construction, i.e. style is constructed by people and can be created via social action, interactions, isolation and exchange



Leather shoe from the Nydam Mose bog site, Denmark. © Andrew Viduka

4.3.1 How Does Style Change?

Style can evolve over time as a result of a diffusion of ideas, innovation, the movement of people (via migration, exogamy or war), the movement of goods (trade or distribution networks) or by changes in the means of production (mass production, industrial technology and globalisation).

It is important to note that a similar style in two geographically separate locations is not necessarily evidence of a link; it may be an example of parallel development.

4.4 Meaning

Function and style contribute to our understandings of meaning. Objects have life histories and meanings that are attached to them. Many aspects of these cultural meanings are attached by different people, at different times and from different places. They can be examined from two anthropological perspectives:

Emic meaning: is a term for an insider perspective, i.e. for people at the time.

Etic meaning: is a term for an outsider perspective, i.e. for observers, such as archaeologists.

4.5 Context

Context is the place where an object is found and the relationship or association of the object to everything around it (usually other artefacts). Its chronological position is inferred by its location within the stratigraphy. The careful documentation of context enables an artefact to be interpreted through various archaeological theories. Without context, an object loses much of its interpretive value and can be considered a loose find. A loose find is any artefact that cannot be accurately placed in context.



This Ovoid earthenware jar was broken and repaired in antiquity. It was later re-used as a burial urn and found containing the bones of a dog. © Andrew Viduka

4.5.1 Macro-scale Context

As artefacts exist within multiple frameworks of interpretation at any one time, it is possible to consider them on both micro and macro scales. A shipwreck is, for example, a discrete and contained (closed) deposit. Artefacts recovered from this type of site can be interpreted in such a way that they provide us with a broader understanding of the site and its association with the societies and cultures that the artefacts belonged to.

Studies such as this enable a larger scale analysis that can encompass other sites from other periods. Mike McCarthy's excavation and analysis of the *SS Xantho* (1872) enabled, for example, a detailed study of the Broadhurst family, examining the life and ingenuity of early Western Australian settlers using a detailed study of a trunk engine recovered from the site.

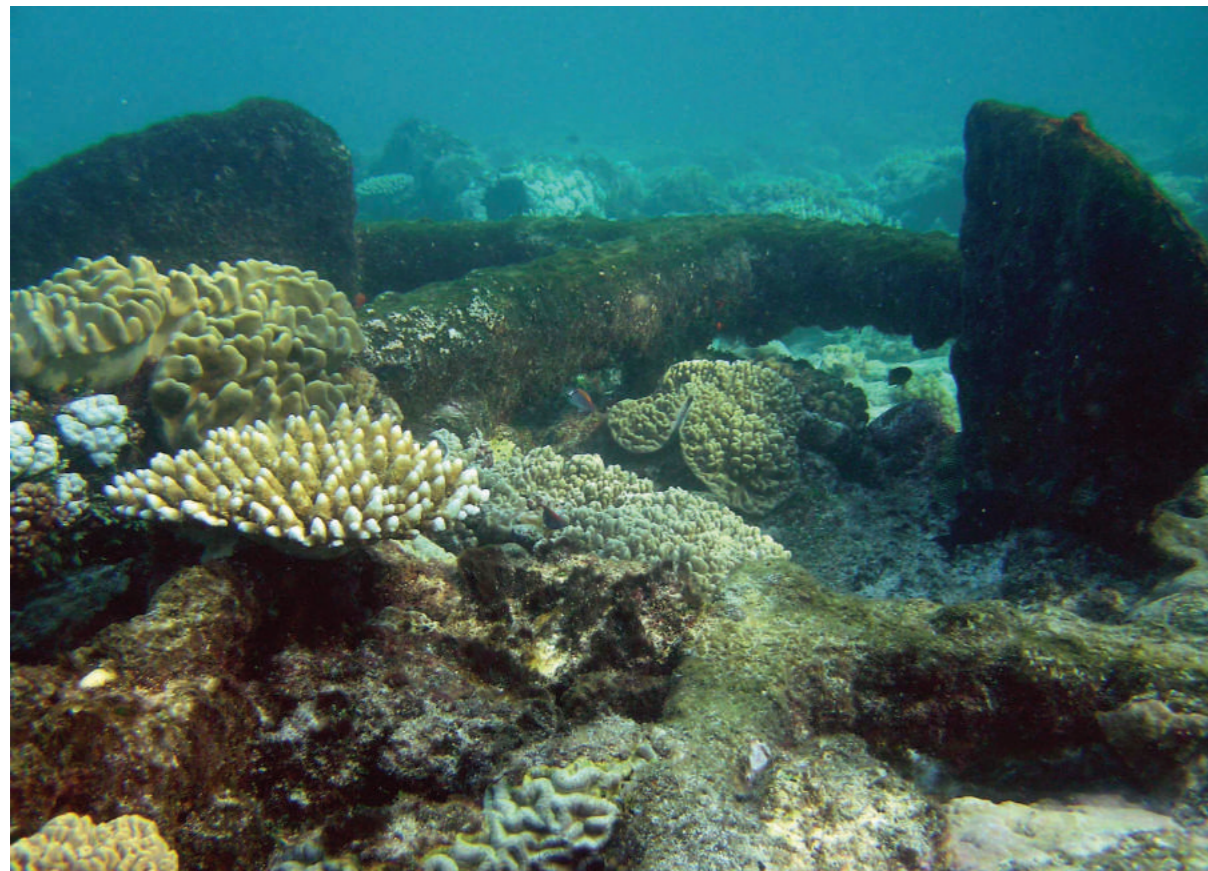
For more information see: <http://museum.wa.gov.au/broadhurst/> (Accessed February 2012.)

4.5.2 Micro-scale Context

As a shipwreck can be considered a time capsule, it enables micro-scale context analysis. Archaeologists have to consider:

- What is the artefact's relationship to other objects?
- Out of context what does it mean?
- A single isolated artefact can lose its associations (context)
- What other objects were with this object when it was found?
- How was this object packaged for transport? (Souter, 2009 and Staniforth, 1996)

Anchors are commonly found as isolated objects which cannot be linked to a site. This anchor is a part of the Aerd Van Ness (1854), situated on the Great Barrier Reef. © Andrew Viduka



Suggested Reading

- Buranasiri, B. 1992. Ceramic Wares Found in Koh Talu Wreck Site: Their Usage and Life. *Bulletin of the Australian Institute for Maritime Archaeological Institute*, Vol.16:1, pp. 7-12.
- Campbell, J. 1997. Eighteenth Century Wooden Clubs from HMS Pandora: A Preliminary Analysis. *Bulletin of the Australian Institute for Maritime Archaeological Institute*, Vol. 21:1.
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- Staniforth, M. 1996. Tracing Artefact Trajectories – Following Chinese Export Porcelain. *Bulletin of the Australian Institute for Maritime Archaeological Institute*. 20.1, pp. 13-18.

Useful Websites

- Western Australian Museum SS Xantho: museum.wa.gov.au/broadhurst (Accessed March 2012.)
- Western Australian Museum Archaeology Collection: www.museum.wa.gov.au/research/collections/anthropology-and-archaeology/archaeology-collection (Accessed March 2012.)

5 Exchange Trade

For centuries, colonization, as well as international and long-distance commerce in goods, was dependent upon a trade network of ships and boats that allowed the flow of goods from the place of production, to the place of consumption.

Trade patterns and the goods that circulated as a result, can provide valuable insights into the cultural attitudes of people by revealing what was considered to be 'suitable' goods, e.g. food, drinks and textiles.

Sometimes only the containers survive, rather than their contents. As a result, we may know more about barrels and amphora, than their liquid contents, such as wine or we may know more about the construction of the ship, than what it was carrying and to where it was carrying it.



*Replica of the Dutch East India Company vessel Batavia (1629) in Lelystad, the Netherlands.
© Andrew Viduka*



Dutch East India Company emblem on the wall of Galle Fort, Sri Lanka. © Andrew Viduka

Case Study 3

Amsterdam (1949)

While all shipwrecks can be analysed on both micro and macro-scales, the *Amsterdam* is a particularly good example of a shipwreck that offers a broad context for artefacts (see: <http://shipwreck-heritage.org.uk/maritime-shore/amsterdam-wreck/>).

The wreck itself is significant (see Unit 6: *Significance Assessment*) due to the high preservation value of the site, which have resulted in numerous organic and inorganic objects being preserved, as well as a significant portion of the ship's structure. The site can be studied and interpreted as a discrete site, yet its value increases once it is placed in context with the broader historical setting, offering a unique insight into the period and the development of the Dutch East India Company (VOC) (Marsden, 1974).

The VOC was established in 1602 when the Estates-General of the Netherlands granted the company a twenty-one year monopoly to carry out colonial activities in Asia. Issuing stocks, the VOC became the world's first multinational corporation and remained an important trading concern for almost two centuries, until it became bankrupt and was dissolved in 1798.

The *Amsterdam* was a VOC ship that ran ashore at Bulverhythe, near Hastings in southern England in January 1749. Located in the surf zone, the ship appears to have rapidly sunk approximately 6 to 8 metres into the mud. As a result of this burial, the *Amsterdam* is the best preserved VOC shipwreck that has been found (to date) anywhere in the world.

The shipwreck is complete up to the upper gun deck on the port side and the lower gun deck on the starboard side. Excavation work was concentrated on a 15 metres long section of the vessel, located at the stern (seaward end) of the site. About 3 metres of largely undisturbed archaeological deposit was excavated which consisted of a dense layer of artefacts and organic materials. These materials included ecological components and ecofacts, such as insects, botanical and faunal remains.



The wreck of the *Amsterdam* in Hastings, UK. © English Heritage



The replica of the VOC ship Amsterdam, September 2011. © Het Scheepvaartmuseum/Eddo Hartmann

 **Suggested Reading**

- Staniforth, M. 2006. Artifact Studies. *Maritime Archaeology: Australian Approaches*. New York, Springer, pp. 27-40.
- Beck, S. 1999. Ceramic Links: An Interim Report of the Archaeological Investigation of the Ceramic Armbands Recovered from the Wreck of the Queensland Labour Trader *Foam*. *Bulletin of the Australian Institute for Maritime Archaeological Institute*. No. 23, pp. 11-17.
- Buranasiri, B. 1992. Ceramic Wares found in Koh Talu Wreck Site: Their Usage and Life. *Bulletin of the Australian Institute for Maritime Archaeological Institute*, Vol. 16:1, pp. 7-12.
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- Lenihan, D. J. 1983. Rethinking shipwreck Archaeology: A History of Ideas and Considerations for New Directions. *Shipwreck Anthropology*. Gould, R. (ed.). University of New Mexico Press.
- Marsden, P. 1974. *The Wreck of the Amsterdam*. Hutchinson of London.
- Staniforth, M. 1996. Tracing Artefact Trajectories – Following Chinese Export Porcelain. *Bulletin of the Australian Institute for Maritime Archaeological Institute*. 20.1, pp. 13-18.



A selection of finds from the 1984-1986 archaeological research from the Amsterdam (1749). © VOC-Ship Amsterdam Foundation, the Netherlands.

Unit Summary

Archaeology is the study of the material culture left behind by people. Ships are time capsules and can often be compared to unique terrestrial heritage sites, such as Pompeii, that contain a rich diversity of objects that can be studied. Shipwrecks can be preserved in remarkably good condition, offering an enormous amount of information about a short period of history, which can be examined in detail. Some of the artefacts contained within shipwrecks, such as their cargoes, armament or items related to life on board, can not be found in sites elsewhere.

The material culture recovered from sites can reveal much about the lives, living conditions, behaviour and technology of people who lived in past eras. However, this requires detailed analysis and an interpretation (explanation) of artefacts, which is what, essentially, material culture analysis is.

Material culture analysis encompasses the study of the creation, uses, meanings and interpretations of the tangible products of human endeavour. As the study of material culture is interdisciplinary by nature, artefacts have to be studied from multiple perspectives: historical, iconographical, aesthetic, cultural, scientific and behavioural. Added to this there are also numerous frameworks and theories which individual researchers can utilize to interpret their data.

In this unit, students have been briefly introduced to the theoretical and practical approaches to material culture analysis. To gain a deeper understanding of this topic, it is recommended that students further explore traditional formal analyses of artefacts and recent studies that focus on consumption, perception and social self-definition (see *Suggested Reading*).

Suggested Timetable

15 mins	Introduction
60 mins	Material Culture Analysis - Archaeological Theory - Scientific Method - Hypotheses - Models - Theories and laws - Material culture analysis - Exchange trade - Case study
	Break
60 mins	Workshop Activity
	Break
45 mins	Group Presentations and Discussion
15 mins	Concluding Remarks and Closure

Teaching Suggestions

It is recommended that trainers introduce material culture analysis to students in the form of a lecture, followed by a group exercise where students can utilize the ideas and concepts presented to them. The objective of the practical session is for students to draw, measure, analyse and discuss an artefact. For further teaching aids and suggestions see *Additional Information 1*.

How to Organise the Practical Session

To facilitate the practical session, trainers should first select a range of objects that are, or could be described as, an artefact, manuport or an ecofact. If the location allows for it, features can also be included in the selection. Trainers should prepare a short biography for each object that provides the students with contextual information that offers insight into the object's significance.

It is recommended that trainers divide students into equal sized groups of no more than four. Each group must select one object to study.

1. Trainers should instruct the students to:
2. Examine their selected object, measure and draw it on the scale paper provided.
3. Identify whether the object is an artefact, feature, ecofact or manuport.

Consider what information can be interpreted from the object, such as:

- Production (creation or making)
- Technology (e.g. shipbuilding)
- Function and style (continuity and change)
- Meaning
- Context
- Exchange (trade)
- Consumption
- Transformation (changing use)

ADDITIONAL INFORMATION

3 Additional teaching materials that can be used to facilitate a practical session on material culture analysis can be found at: <http://www.cyberbee.com/culturalanalysis.pdf> (Accessed February 2012.) Provided by the library of Congress American Memory Summer Institute, this guide can be easily adapted and modified by trainers to suit requirements.

Trainers should allow students approximately one hour to complete the exercise and should spend time with each group, actively directing their efforts.

After a short break, a representative from each group should present the results of their analysis to the rest of the class. Trainers should encourage questions from the other groups and re-enforce important topics and ideas covered in the unit.

Equipment Required for Each Group of Students

- Scale paper
- Plain paper
- Ruler
- Drawing Compass
- Pencils
- Eraser
- Magnifying glass

If available and relevant include: a thread counter, stereo-microscope, Munsell colour charts, small torches or desk lamps. (See *Additional Information 3*)



Suggested Reading: Full List

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