

Archaeology and education, an exercise in constructing the past

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My aim today is to show how archaeology is a perfect tool for education, and how an archaeological education brings many benefits to pupils and students. We will see how archaeology is perfectly suited to offering a rich and useful educational experience. Much of what I say will be culturally specific to the United Kingdom - but even so, it is also of much wider, universal application.

What is Archaeology?

Archaeology is the study of past human behaviour through the physical evidence it leaves behind. The objects of study of archaeology are artefacts, structures, the landscape and human remains. Archaeologists study how the ways in which people lived and the ways they behaved varied from place to place and changed over time. Archaeology is the study of people and places in the past. They also study how people depended on and altered the

landscape, and the plants and animals that lived in that landscape. To do this, archaeologists must discover, record and often recover the physical remains and effects left behind by people in the past. They also play a key role in conserving the evidence of the past for present and future generations.

Archaeological evidence

The remains of the past are all around us. We often fail to recognise them because they are still in use and part of the present, e.g. the houses we live, the streets we walk along. Sometimes they are obvious, our great cathedrals, country houses or timber-framed buildings. Often they may be ruined and waiting for redevelopment, e.g. disused factories, or survive as consciously marketed heritage, such as castles or abbeys in the care of national organisations. Much more of the past is there

to be seen if we had the knowledge to realise what we are looking at, e.g. ancient fields or prehistoric henges preserved as earthworks. Some of the remains have long since disappeared to leave only foundations or traces below ground. The artefacts that belonged to people in the past may also survive and await the 'archaeologists' trowel or be preserved in museum store-rooms, or even the family attic.

Although much of the archaeological evidence is all around us, many people fail to associate it with archaeology. One reason for this is that people's image of archaeology is partial, stereotyped and sometimes inaccurate. Archaeology has an image problem. If you ask most people what is archaeology, they will respond by telling you what archaeologists do -they dig. Excavation is the one aspect of archaeology recognised by everyone. They may also say that archaeology is all about the search for artefacts -as though collecting objects is the only objective worth pursuing in archaeology. If asked for an image of an archaeologist, they are likely to think of Indiana Jones, Lara Croft or an eccentric individual, part scientist, part adventurer and partly not quite of this world.

What is worse, most people have an image of the past that is totally at odds with reality. People tend to project their own desires onto the past, or find it easy to deal in stereotypes views which focus on only a few aspects of the past. People see the past they want to see.

We need to realise that we archaeologists are in competition with other media for people's attention and much of what people think they know about the past comes these other media, rather than from us. This creates problems for us.

Visible remains

The past is obviously old, the past as romantic ruin, sites are conserved and static (dead), focus on special places, eg religious and military life, bias towards the wealthy in the past.

Film and TV entertainment

Archaeology as adventure, preference for exotic locations, emphasis on the spectacular, provides action and excitement, archaeology as a male pursuit, the search for treasure, dinosaurs!

News and documentary

Must be special to be newsworthy, some subjects are sexier than others!, archaeology as a serious subject, emphasis

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on the product not the process.

The recreated past

Battles are entertaining, the past is attractive, the past can be bought, we can accurately recreate.

We need to negotiate acceptance of our ideas by an audience that may not be willing to accept our authority if it challenges their own preconceived ideas about the past. Above all we need to persuade people that we have a methodology for investigating that past that should command respect, and should enable them to accept we have authority. If we do this we empower people to decide for themselves the archaeological worth of what they may see or read. If we do not reach out to the public then there are others who will, and who will provide for the public a vision of the past that is appealing and yet utterly wrong.

The archaeological approach

An archaeologist adopts a particular approach to studying archaeological remains. There must be careful observation and recording to glean every detail of the site or artefact. The site/artefact must be placed in its proper context: what was it found with, how was the site

connected to other features surrounding it, how does it compare with other sites or artefacts in the area or from the same period? Archaeology is all about processes. Where people fail to understand archaeology (and not just the public but also some archaeologists), they assume that archaeology is all about the products of what we do -the site, the presentation, the artefacts, the narrative of the past.

What such study reveals is the pattern of change over time; both changes in technology, in fashion or style and in the way the remains were used or what they symbolised. It also reveals the variety of human material culture from place to place and some of the influences that cause this variety: different environments, religions, social systems, economies etc. Archaeology reveals the relationships of people to place over periods of time.

Archaeologists may study inanimate remains but the real object that their study reveals is the behaviour of people. Sir Mortimer Wheeler in 1954 noted that "too often we dig up mere things, unrepentantly forgetful that our proper aim is to dig up people".

Archaeology also provides through the remains we uncover or conserve a powerful sense of how places differ and came to be. The remains of then past form a historic environment, in which people live and act out their everyday lives. A report published by English Heritage in 2000, called *Power of place* put the case for the historic environment as an important contributor to people's sense of well-being, their quality of life, and the economic benefits of heritage.

The past we study is an exotic and strange world. It is very different to the world we live in today. It has wonderful cultures we can admire, many features we puzzle over, and aspects we would now condemn like human sacrifice or slavery. This strangeness is often what attracts us to archaeology, and is a powerful force for people's fascination with the past. Yet, there is a paradox. The people of the past were just like us. The same species (at least since the extinction of the last Neanderthals), with the same desires, fears and thoughts. To study the past is to study ourselves and our behaviour. This is what gives archaeology its power, and its relevance.

Other disciplines study people

(e.g. sociology) or place (e.g. geography) or even time (e.g. history) but archaeologists have a unique perspective to offer in integrating all three. Only archaeology can offer a time depth of tens, or even hundreds, of thousands of years and insight into the origins of our species. Only archaeology can offer insight into the variety of human cultural expression in all parts of the globe. Only archaeology can study the whole behaviour of all sections of society.

Archaeological remains in themselves are silent. They do not speak to us in the same way as documents or oral testimony. The use of archaeological evidence in teaching demands that the student should learn to ask questions of the evidence and judge between different interpretations. The meaning of the evidence has to be constructed by the student. This is empowering students to be active learners and confront their own attitudes and feelings towards the past and its remains. Archaeology is thus well suited to active and empowering modes of learning.

Current approaches in archaeological theory tell us that we create our own images of the past. Interpretive or post-processual archaeology as it has

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developed in Britain is a very post-modern discipline. We now accept that interpretation is contextualised and therefore constructed by the interpreter, interpretations are therefore relative rather than absolute and involve a dialogue between evidence and archaeologist. Modern British archaeology is aware of its own relationship to the evidence and its own practice. It largely rejects the notion of universal narratives and allows for multiple interpretations. Archaeology is a construction of a past in the present, without a single truth but with a respect for the evidence.

We need therefore to train people to be self aware in their interrogation of the past and aware of why we do archaeology. We need to think widely and accept the possibilities or multiple interpretations of the evidence - but never going against what the evidence is.

The educational approach

Much of modern teaching follows what is often termed a constructivist approach to learning. John Dewey (1867-1949) in the USA began the constructivist revolution through his ideas about hands-on learning

and matching learning to the experiences of the student. Child-centred learning is the key to good education.

The three people most commonly referred to as the fathers of modern educational theory are Jean Piaget (1896-1980), Lev Vygotsky (1896-1934) and Jerome Bruner (b. 1915).

Piaget was concerned to elucidate the stages through which a child progressed during its mental development. He identified certain key points at which a child's thinking moved upwards into more complex intellectual reasoning about his or her environment. Before c.18 months, a child is dominated by a purely sensori-motor relationship to the external world. Until the age of c.7, children are pre-operational, that is learn by doing rather than by applying logic to work things out. From 7 to 11, children are concrete operational where they can begin to think about things before they do them and can apply logic to what they observe. At the age of c. 11, pupils develop formal operational skills where they can think logically about abstract propositions and can form hypotheses about future actions. For Piaget, there was no

point in trying to teach a child something it was not intellectually equipped to understand and so teaching had to differ according the stage reached, i.e. the age of the child.

Vygotsky emphasised the social interaction of children with each other and teachers as an important part of learning. While accepting that children of different ages had different learning capabilities, he held that social interaction could help raise a child's capability above what it could achieve on its own. Interaction involves language and the language used must be appropriate for the interaction to take place. Intelligence is therefore not so much innate as a product of social and cultural interaction.

Bruner on the other hand resembles Dewey in his emphasis on learning as an active process in which students or children build upon their own experience and current knowledge to construct new ideas or knowledge for themselves. Teaching is thus an active dialogue between teacher and learner and learners needed to be keen and willing to learn for effective teaching to take place. Forms of teaching should thus be structured carefully to fit in with what children can

understand and should encourage their thinking to go beyond what they are being presented with. Pupils need to be enabled to construct their own learning.

The overall nature of constructivist learning is that learners should be involved and empowered through appropriate communication. Pupils, and adults, need to be enthused about what they are asked to learn, and to feel that they are engaged in something active. Teachers need to learn to speak and structure what they say so that the learner can follow and understand what they are learning.

The most recent adaptation of constructivist education is by Howard Gardner, who has developed the idea that there are multiple intelligences. What he means by this is that we cannot measure intelligence in only one way. Different people will have different ways of understanding the world around them and turning that understanding into something we can measure as intelligence. It might be better to think of his multiple intelligences and multiple skills or ways of reasoning.

Gardners intelligences are:

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Linguistic

Good at understanding and using words, highly developed in writers and poets.

Logical

Good with number and problem solving, found in scientists, engineers, computer programmers.

Spatial

Good at visualising abstract notions or designs, found in architects, designers, chess players.

Musical

Identifying sound, pitch and rhythm, developed in musicians, sound engineers, mechanics.

Kinaesthetic

Good balance, coordination and body skills, useful for sports, dancers, etc.

Naturalist

Good at observing, recognising patterns and classifying the world around them, found in farmers, astronomers etc.

Interpersonal

People who are good with other people, good social skills, e.g teachers, counsellors.

Intrapersonal

Self-awareness, spiritual and expressive people.

This idea of multiple intelligences is being used now in the UK to devise appropriate learning styles for different pupils, and is the basis of the new *Inspiring learning for all* website produced by the Museums, Libraries and Archives Council (inspiringlearningforall.gov.uk).

Archaeology is perfectly placed to provide educational opportunities aimed at most of these kinds of learning ability:

Linguistic

Site reports; logical-field strategy; spatial-excavation method.

Kinaesthetic

Fieldwork and artefact analysis; naturalist - recording and surveying.

Interpersonal

Teamwork.

Intrapersonal

Understanding ourselves.

Why study the past?

One question we must however, if we are to provide good archaeological input into education is "why do we study past?". History is more than simply telling the narrative of the past. It was the Roman writer Cicero who referred to history as "the instructor of

human life". More recently, Joseph Priestley -a British scientist, philosopher and educationalist- pointed out in 1803 that "history enables students to understand change and cause and effect, to improve their judgment and understanding, to lose their prejudices, and to learn from the past how to improve affairs in the future and appreciate the wide variety of human nature" (*Lectures on History and General Policy*: 25ff). Archaeologists often accept much of this, but often only implicitly rather than explicitly.

I think we need to be much more explicit about why we do archaeology. If we do this then we can be much clearer about the educational benefits we provide and what we should be providing.

Benefits of teaching archaeology

Archaeologists learn a great deal about the past (what happened and when). But, we also seek to learn from the past (finding lessons for today from past experience), and to ensure the heritage of the past still has a place in the present (what heritage means to local communities and nations).

Learning about the past can tell

us a great deal about many aspects of the human experience. It can teach us to admire the achievements of our ancestors and gain inspiration from what they have left behind.

We can find out about:

- technology: technology, manufacturing and everyday life;
- economy: livelihood, economics and settlement;
- society: social organisation, language and ritual;
- arts: painting, sculpture, crafts, expression of ideas and feelings;
- religion: religious beliefs and practices.

Learning from the past can help us to understand more about ourselves, and has direct relevance for our lives today.

We can learn:

- to appreciate what it means to be human, to have respect for our common humanity;
- to appreciate the cultural variety of human expression and empathise with other societies and circumstances;
- to understand processes of change, whether sudden or gradual and the complex causes of changes;
- to understand long term human effects on the environment, and the impact of environmental/climatic change of human societies;

-to understand the present in the context of the past, e.g. the nature of migration and ethnic diversity, the debate of modification of food crops, problems caused by deforestation.

Caring for the heritage of the past is more than simply preserving picturesque ruins. It can help people to:

- engage with and explore their own cultural identities;
- strengthen their sense of place, of feeling at home;
- gain from the contribution of heritage to the economy;
- develop their own aesthetic or spiritual feelings.

Archaeology in schools

Using archaeology to learn from the past can help to support a variety of subjects in the school curriculum. An example is given below of how different strands of archaeological understanding can be mapped across to curriculum subjects. The examples are taken of course from the school curriculum in the United Kingdom, particularly that of England.

An other way of looking at the educational benefits of archaeology is that taken by the UNESCO World Heritage

Education Project. Although an alternative, it is fully in accord with the approach I have already outlined. It does though provide a different perspective and set of priorities that have more world-wide application.

Identity is all about being self-aware -aware of your own culture and its importance- and about respecting other people's culture. What makes every culture unique and important?

Tourism is concerned with understanding that heritage tourism has benefits but that it also presents dangers to heritage itself. Tourism need to be managed and sympathetic to local people and the heritage.

Environment is not just about the natural world. The cultural diversity of humanity is analogous to bio-diversity, and needs to be protected and cherished just as much. The historic environment is a non-renewable resource that needs to be conserved and sustained for future generations.

A culture of peace is perhaps the most urgent of all. Heritage can itself symbolise peace, and it can also symbolise the need for human rights. But of course, heritage is in danger from war. Many wars involve the deliberate

| ARCHAEOLOGICAL UNDERSTANDING | | |
|-------------------------------------|--|---|
| Strands | Details | Curriculum links |
| Learning from the past | | |
| Humanity | Humans as a group of primates notions of race and species the nature of humansocial behaviour | As an ethos underlying citizenship, people in society and humanities subjects. |
| Cultural variety | Characteritics of different societies reasons for differences overlapping cultural differences | Underlies geography and citizenchip (e.g. diversity of identities) and as sitmulus for expressive subjects like art & design, music, dance. |
| Environmental interacion | settlement location travel subsistence climate | Supports socience, geography and sustainable development. |
| Change through time | sudden & gradual change characteristics of different periods reasons of change | The basis of history but also useful for geography but design & technology. |
| Understanding the present | the origins of the present analogies in the past for current issues | Helps to understand issues in citizenship, sustainable development and geography. |
| Caring for heritage | | |
| Cultural identity | ownership of heritage and symbols of nationality | Can be a stimulus for discussion in citizenship, and be a basis for art & design. |
| Sense of place | distinctiveness of local building traditions | Part of geography but could also support science and design & technology. |
| Economic value | heritage tourism, role in regeneration | Should be part of citizenship and environmental studies. |
| Aesthetics and spirituality | aesthetic responses to the past the nature of religious sites and spaces | Helps to explore values and attitudes in geography, religious studies, humanities and acts a stimulus for art & design, and music. |

destruction of the enemies heri- tage. It is sad that it is only this year that the United Kingdom

government has at last agreed to sign the Hague Convention protecting heritage in wartime.

Case studies

The educational potential for archaeology is great. Now we have to ask: is there the capacity within archaeology to support this potential? Who in archaeology in Britain does educational work? The answer is a wide variety of organisations - examples of which we can see from England and Scotland. There are national agencies, local authority bodies, independent field units and local amateur societies, as well as individuals on a freelance basis.

The role of the CBA is to support and nurture these efforts. We advise many organisations about education, and we campaign nationally to have more archaeology included within the education system. A lot of my time is spent sitting on various national committees, editing books and organising conferences.

Here are just a few examples of current work in the United Kingdom. These will only give you a flavour of what is being done by many people.

The Museum of Antiquities at Newcastle University runs a project on Roman Britain with local primary schools, called Reticulum. They have worked

with schools in some of the most economically deprived parts of England. Government schools inspectors have praised the project for doing a lot to raise educational standards, especially in literacy. Some schools with very poor results have become much better because the children have been enthused and engaged with learning through Reticulum. The idea is to work with the children in active learning about the Romans and involve the children in creating the Reticulum website. This is their website, a site they have built for themselves.

The Young Archaeologists' Club is run by the CBA. It was founded in 1973 and now has 3,000 members -aged 8 to 16- and 70 local branches all over the United Kingdom. Branches put on activities once a month, and the club nationally has a magazine, *The Young Archaeologist*, runs competitions and residential holidays. Many members of club are actively doing archaeology through their local branch. This includes excavation, experimental archaeology (e.g. bronze smelting) and survey (e.g. local graveyards).

Archaeologists are making much greater use of the Internet as an interactive learning resource. One of the earliest, and still one

of the best, examples is from the website of the BBC. Linked to the television series, *Meet the Ancestor*, is a game called *Hunt the ancestor* (<http://bbc.co.uk/history/games/ancestors/index.shtml>). This allows young people to make decisions about an archaeological investigation.

The National Trust for Scotland have a research archaeology project looking at the deserted upland agricultural landscape of Ben Lawers. This is a project involving professional archaeologists, adult volunteers and local schools. The children take a full part in the project, including excavation, survey and artefact work.

The University of York, has a long term research project at Castell Henllys, an Iron Age farmstead in Wales. Part of the project has involved the building of a reconstruction of the farmstead, as a base for experimental archaeology. The fieldwork involves not just university students but also teenagers still at school who can get an experience of archaeology before they apply to university. Work is also done with local schools since the Iron

Age is part of the school curriculum in Wales.

Conclusion

I hope I have managed to show how good archaeology education is also good archaeology and good education. That is, it fits well with current theories in both fields. I hope also, that I have been able to explain a little of my vision of why we do archaeology education and why I think it is so important. I do not claim that we in Britain have all the answers, nor that we have found the best or only ways of doing archaeology education. I am very happy to be here today - not only so that I can tell you something of what is going on in the United Kingdom, but also so I can hear and see something of what is going on in the rest of Europe. I think we in the UK can learn a lot from approaches elsewhere and I am looking forward to the rest of the conference, and I know that I will be thrilled by the papers to come.

Thank you for inviting me, and thank you for listening to me today.