

PART 1: WHAT IS EXARC?

EXARC originally focused on archaeological open-air museums. There are close to 400 such museums in Europe and probably a similar number in the United States and dozens more scattered over the world. EXARC keeps an overview at www.openarchaeology.info/venues.

The second leg of EXARC is experimental archaeology which can be simplified to “any serious attempt to understand the past by means of experimentation using archaeological sources”. We have an online bibliography with over 11,000 titles at www.openarchaeology.info/bibliography. Both these resources are maintained and updated with help of the EU project OpenArch.

EXARC also works with archaeotechnique: many people are involved in old techniques of production or follow up questions raised by archaeology like for example: how did people make fire in the Stone Age? These are exactly the stories which are explained in archaeological open-air museums.

EXARC's final leg is interpretation-not just live interpretation or living history but it also includes museum education and museum theatre. America has great experience but is it really true that whatever works brilliantly in Colonial Williamsburg will reach a similar resonance in Munich, Germany?

The EXARC Journal is published every quarter online and twice per year in hard copy. This too is supported by OpenArch. EXARC publishes about the latest developments, new open-air museums, research, conferences and more. The EXARC Journal – and actually EXARC itself – bridges between Science and museums.

One can find EXARC online at www.exarc.net as well as on social media where we manage several groups and channels, with over 13,000 subscribers.

EXARC is a network organization. Our members tell stories inspired by archaeology. These are about the daily life, against the backdrop of the larger political and economic frame. The stories contain elements which are comparable to the present and with that these stories are extremely relevant to our public. Those who can listen well will learn from the past for the here and now.

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PART 2: WHAT ARE ARCHAEOLOGICAL OPEN-AIR MUSEUMS?

Archaeological Open-Air Museums are a successful reply to the rising experience society (Paardekooper 2013). The museums use basic techniques which are as old as the first archaeology and cannot be seen separately from archaeological findings.

It is hard to define what archaeological open-air museums really are. Most authors writing about archaeological open-air museums refer to the diversity in presentations and the resulting difficulty of precisely defining these sites. Although the differences between Archaeological Open-Air Museums are large, they have more in common than at first sight. Archaeological Open-Air Museums are united in having an outdoor facility with reconstructed buildings, a scenery or stage so to say, for their activities. In most cases, the facility is themed with prehistory, the Roman Era or a medieval scene.



Figure 1: A Stone Age type house in Heldenberg, Austria

At these places a wide variety of matters is presented, ranging from archaeological workshops, school excursions up to spectacular events.

Archaeological open-air museums usually have no collection of tangible artefacts. If their houses burn down—they are fake anyway—it is not the end of the museum.

They collect information, stories if you like, which they present in the prehistoric or medieval scenery. The information itself, the intangible cultural heritage resources, is the collection. Thus, archaeological open-air museums, like science centres and heritage visitor centres are ever more accepted in the international museum family.

However, the differences between an Archaeological Open-air Museum and a traditional ‘showcase’ museum are apparent. A museum—even in modern commercial exhibitions—tends to be artefact based, while archaeological open-air museums are activity based.

Most artefacts at an Archaeological Open-air Museum are to be touched and used. In many cases, tourist visitors think that what they see is the exact way it was. The image of such a “Stone Age house” is such impressive, that people take it for real, for original. And we can tell again and again that what they see is just one of the possibilities of how life might have been back then, but will our visitors even hear us?



Figure 2: A Stone Age event, Oerlinghausen, Germany

A museum in the traditional sense of the word has as tasks collecting, preserving and presenting. An archaeological open-air museum looks at it differently. The five keywords are: education, presentation, experiment, commerce and Living History. That does not make them having a worse or less successful approach than the archaeological museum around the corner. Thankfully, there are more and more “crossovers”: a combination of indoor and outdoor. In my opinion, combining the two approaches is the very best to do.

For many children (an important group of visitors) our museums are attractive as we have so much and so much different life. Using this is a way to get in contact with your visitors, to help transfer the story behind the product. The people first see a goat or a pig, but when they leave, they might see it as a “prehistoric” kind of animal instead of just a pet.

So what is an archaeological open-air museum?

The international federation EXARC has come with a **definition**: An archaeological open-air museum is a non-profit permanent institution with outdoor true to scale architectural reconstructions primarily based on archaeological sources. It holds collections of intangible heritage resources and provides an interpretation of how people lived and acted in the past; this is accomplished according to sound scientific methods for the purposes of education, study and enjoyment of its visitors.

#A Museum

“A museum is a non-profit², permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.” (ICOM Statutes, approved in Vienna (Austria) – August 24, 2007. Art. 3, Section 1).

Professional practice and performance in archaeological open-air museums should respect the ICOM Code of Ethics for Museums (ICOM 2006, www.icom.museum).

#B Archaeological

Archaeological data are the primary source of information of what is reconstructed and interpreted.

#C True to scale architectural reconstructions in the open-air

Archaeological open-air museums deal with outdoor true to scale reconstructed buildings. These can be constructed and interpreted only under the condition that: *“the original buildings of the type portrayed are no longer available (and) the copies or reconstructions are made according to the strictest scientific methods”* (ICOM declaration: 9th July 1956/1957 Geneva, section 6).

The authenticity of materials and techniques used should be clearly accounted for through written and accessible records, quoting the sources of information on which the reconstructions are based. An honest assessment of each reconstruction should be feasible.

#D Collections of intangible heritage resources

The overall presentation of an archaeological open-air museum can be regarded (classified/defined) as a collection of intangible heritage resources which provides an interpretation of how people lived and acted with reference to a specific context of time and place.

#E Connected to scientific research

The connection between scientific research and any specific archaeological open-air museum is provided by the active role of a trained archaeologist among the staff or an archaeological counsellor belonging to an affiliated organisation.

#F Appropriate interpretation with organisation of activities for visitors

Depending on the nature and amount of visitors, different kinds of interpretation can be appropriate. These activities can involve (but are not limited to) guided tours, educational programmes, presentation of experimental archaeology research, demonstrations of ancient crafts and techniques, live interpretation and living history activities.

Table 1: What is an archaeological open-air museum?

² “Non Profit refers to a legally established body- corporate or unincorporated - whose income (including any surplus or profit) is used solely for the benefit of that body and its operation. The term "not-for-profit" has the same meaning” (ICOM Code of ethics for museums, ICOM 2006: <http://www.icom.museum/ethics.html>).

Are archaeological open-air museums more commercial than a museum? Yes. But much less than theme parks are. Theme parks make imaginations, based on some romantic past which never existed, like for example on the “Pirates of the Caribbean” or on the “Wild West”. As our kind of museums have to earn most of their own income and are in no way protected for ‘bad years’, commerce was introduced, besides science, education and presentation. When a National Museum in the Netherlands earns 80% of its budget from governmental funding, for archaeological open-air museums, it usually is the other way around. And if you then think that income is only generated in Summer time, one understands, these museums usually are heavily in debt by February. They need to be very flexible.

The future of archaeological open-air museums might very well be ‘to build a virtuous circle of exchange among research, education and tourism that has its centre in experimental archaeology in archaeological open-air museums’ (Comis 2010, 9-12).

PART 3: WHAT IS EXPERIMENTAL ARCHAEOLOGY?

Experimental archaeology, if done correctly, is a very useful tool, one of many, used to gain a better understanding about the past. Several definitions have been put forward in the past decades. One of the more recent definitions of experimental archaeology stems from Mathieu when he states that experimental archaeology is “a sub-field of archaeological research which employs a number of different methods, techniques, analyses, and approaches within the context of a controllable imitative experiment to replicate past phenomena (from objects to systems) in order to generate and test hypotheses to provide or enhance analogies for archaeological interpretation” (Mathieu 2002: 1). Mathieu clearly refers in his definition to the multi-disciplinary character of experimental archaeology when a situation is created to make comparisons with the archaeological record. When in some cases, setting up such a comparison is meant to create ideas about the past, in other experiments analogies are created to directly compare with the past. Experimental archaeology is invisible, as its results are data, not products. It is a process of gathering knowledge and involves verbal-theoretic data combined with knowledge gained by experience.

Experimental archaeology is not only a technical approach (a natural science), but also a human science. This is both a strong point and a weakness. The ultimate research does not concern the pot, but the “Indian behind the pot”. However, to learn a craft used in the past out of a book (say wool spinning) is entirely different from experiencing it. Doing it for real involves all our senses and requires agility. It leads to an understanding of space, form, technique and material. Often a technique might be easy to learn, but hard to master sufficiently.

Experimental archaeology could refer to different activities. Some of these aspects refer to the realm of research, others to tourism or education. Often, house (re)constructions or life size models are the first activity coming into mind when thinking of experimental archaeology. In books and brochures the building of a museum is presented as experimental archaeology. It would maybe be better to say that it was an act of personal experience. Experiment and experience are two different terms which are often mixed up. Educational school programs are often called experimental archaeology, even though these are simply

‘first time experiences’ of making fire, grinding grain on a stone quern or sailing in a longboat.



Figure 3: Experimenting with producing iron, Eindhoven Museum, the Netherlands

Demonstrations for a tourist public, for example iron smelting, are also often considered experimental archaeology. In some cases, the ‘actors’ are volunteers of a living history group, dressed up as if they stepped out of the past five minutes ago.



Figure 4: Student Exercise with Shields, Oerlinghausen, Germany

Obviously, experimental archaeological science needs more than that, even though demonstrations and experiments can be combined successfully, as the past two decades in Sagnlandet Lejre (Denmark) have shown. There are also so-called ‘back to Old Times’ summer camps or ‘Life Experiments’ which are referred to as experimental archaeology. An example is the 2006 German TV show “*Steinzeit das Experiment*” (Schlenker and Bick 2007: 8-43). Often, these camping weeks have a social aspect which in the end is of higher priority than its archaeological character. If done correctly, much information can be derived from these various activities. Experimentation can be about trying out a technique, occasionally, trying to answer personal questions like “does this actually work?”, “can I do it?” and “how much time does it cost me?” This again is about gathering personal experience which, if put in the right perspective, can lead to scientific value. Finally, there are the scientifically ‘correct’ experiments, which are structured according to laws in natural science. These experiments are well planned, reproducible, well documented and published.

Experimental archaeology is as old as archaeology itself. There are known 16th century examples which can best be described as “any honest effort to understand ancient artefacts by actually working with them” (Coles 1979: 11-12). The main focus of these experiments was on the provenance of artefacts and derived from the need to prove whether objects were manmade or natural. An example of this are the bronze horns from Iron Age Ireland (Coles 1979: 14) which were tried out in 1860 by the excavator who, “in the act of attempting to produce a distinct sound”... “burst a blood vessel and died a few days later”. This must have been one of the earliest casualties of experimental archaeology.

Over the past decade, literature references to experimental archaeology and related fields such as archaeological open-air museums were collected. This database of over 11 000 references can be found at www.openarchaeology.info. When looking at simple statistics, a few things become clear. Experimental archaeology has never been more popular: 59% of the known titles date to 1990 or later, only 6% to 1960 or earlier. The publications in this field are hard to come by when 78% are articles, chapters or conference papers – there are hardly any monographs. With half of all entries published in English, those limited to only this language miss out a large part. If one would read both English and German, that would cover three quarters. Of the over 6 400 authors in the list, 85% only have one or two references, referring to their one and only experiment, meaning that most experimenters are not experienced at all. It must be added that according to my estimations, over 75% of activities which could be labelled as experiments in the sense that they teach us something valuable about archaeology are never published or even written down. A history of experimental archaeology still needs to be written. The most popular search keywords on the website include archaeological open-air museums, construction of buildings, ethnoarchaeology, ceramics and stone, followed by education, iron, ships, tools, textiles and finally use wear analysis.

What is a good experiment? Kelterborn (2005) mentions the importance of clear goals, correct modelling, measurability, repeatability, professional planning and supervision and execution with the correct manual skill. A simple working script for experiments can be summarised as follows (Lammers–Keijzers 2005: 22) (Table 2).

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1. Define archaeological problem
 2. Is it Hypothesis-testing or Hypothesis-forming?
 3. Structure: static (no changes made in the test) or dynamic (result oriented) single experiment or multiple simultaneous lines;
 4. Conditions: interpretation level (between intuition-scientific) influential variables (persons, tools, materials, techniques, environment)
 5. Mid-evaluation: check design and realisation
 6. Preparation documentation
 7. Perform the test and document
 8. Feedback or comparison
 9. Ascertain analogy: uniformity and unambiguity
 10. Conclusion
 11. Report
 12. Repeat test
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Table 2: Working script for experiments (Lammers-Keijsers 2005: 22).

It is important to note the many steps undertaken before the actual experiment takes place and to take a closer at analogies, the hinge in experimental design. As Lammers puts it, “an analogy is unambiguous when there are no alternative explanations for the occurrence of similarities between source and object” (Lammers-Keijsers 2005). For example, cutting down trees produces evidence which cannot be arrived at in another way. Now let us be clear, archaeology, like any human science, cannot provide us with certainties, but we can go a long way. Using experimental archaeology enlarges our frame of reference and therefore, our hypotheses become more probable and our analogies become more unambiguous.

We can prove an impossibility (a false hypothesis), but we cannot verify a hypothesis for sure (Popper 1959: 57–73).



Figure 5: Tar production, Oerlinghausen, Germany

PART 4: CONCLUSION

Experimental archaeology presentations are often included in main stream conferences like at the SAA, EAA, TAG. By now there are many dedicated “experimental” conferences. An important international conference is the Winter Conference, usually in the British Isles (<http://experimentalarchaeology.org.uk>), another one, mainly in German, is early October (www.exar.org) and in the USA there is RE-ARC (www.rearc.us). The world’s largest experimental archaeology conference however, takes place every three years in Spain, in Burgos in 2014, in Tarragona in 2017.

EXARC is the world’s largest network on experimental archaeology, open-air museums and much more. Through EXARC you stay in contact with colleagues in between the conferences and meetings. Experimental archaeology is ready for a glorious future. It is appealing and has much to add to mainstream archaeology. So does EXARC. Join us at www.exarc.net.

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