


## Unreviewed Mixed Matters Article:

# Book Review: Experimental Archaeology by Alistair Marshall

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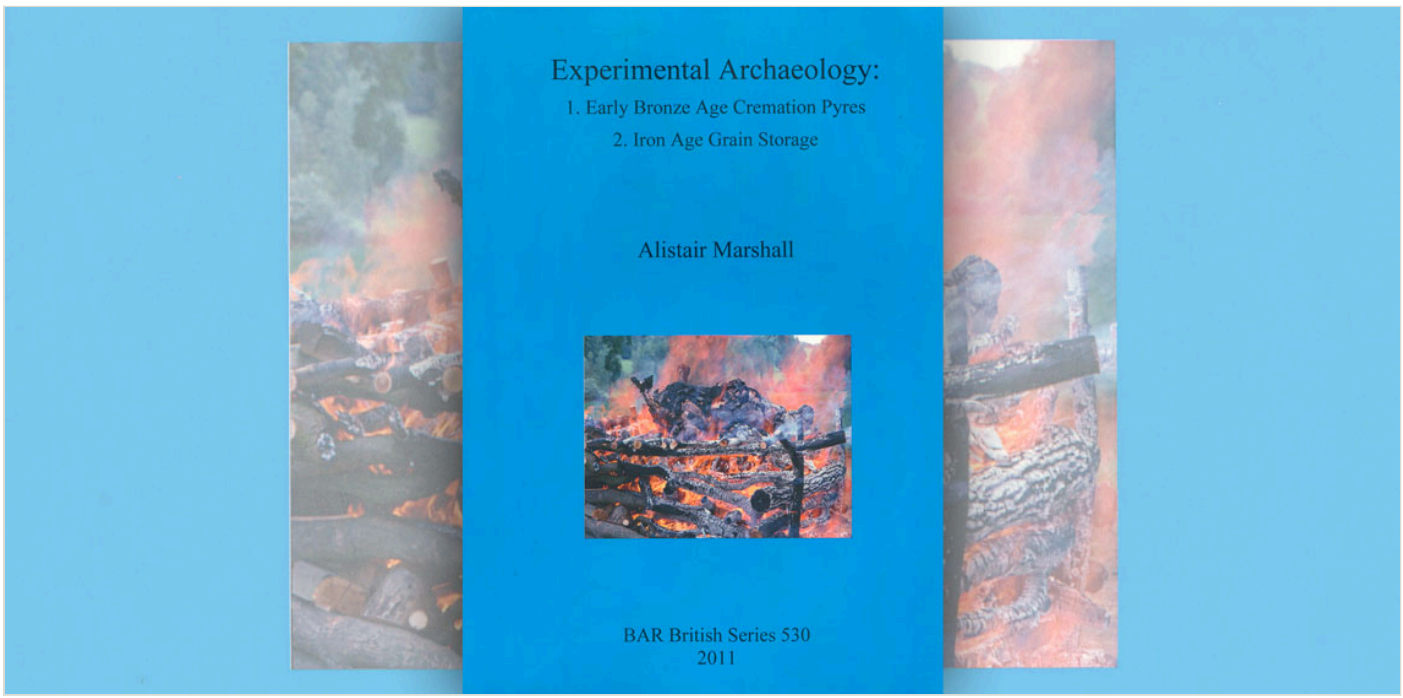


*Experimental Archaeology: 1. Early Bronze Age Cremation Pyres. 2. Iron Age Grain Storage* - the first thing that strikes the reader is that the book's preface is missing leaving little understanding of the overall purpose of the book beyond the publication of two very different but significant experiments.

At times, the organisation of the book is a little frustrating as all illustrations and plates are included in an appendix at the end of each paper: the papers would have been easier to

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follow if some of the illustrations were included in the text. Both papers are very detailed and perhaps, some of these details could have been placed in appendices to help guide the reader through the text. For example, Marshall included quite a detailed discussion on the effect of burning on the bones and artefacts placed in the pyres. Although this discussion is valid it does not present any major new insights as other, more detailed, experiments have been published and therefore, this section could have been included as an appendix. In addition, the details relating to the cremation process, which included timings, would have been better as a summary in the main body of the text with the finer detail placed in an appendix.

Although the two experiments presented by Marshall are very different, they do have a number of features in common: they both are 'actualistic' (Outram 2008) or 'process and function' (Reynolds 1999) based experiments although the pyre experiments also have a 'technological innovation' element (Reynolds 1999). Both use direct evidence from sites in southern England and, in the case of the grain storage experiments, used the actual archaeological evidence of pits in which to test the hypothesis that, during the Iron Age, rock-cut pits were used for storing grain. Both experiments have very detailed background information that put the experiments in an overall archaeological context including a summary of the archaeological evidence of storage and pyres, accounts of previous experiments, ethnographic data and historical evidence. Both experiments test the suitability of a number of pyre/storage pit designs in detail and take into account environmental factors that influence actualistic experiments.

The first paper outlines a series of pyre experiments designed to supplement the interpretation of burnt pyre bases found under Bronze Age round barrows in southern Britain. As ethnographic evidence indicates that pyres can differ in size and shape, the experiments consisted of a series of different pyre designs: box-type stacked, box-typed log-edged, box-type framed and ring-type. Unlike the majority of previous pyre experiments, Marshall's experiments were not specifically designed to monitor the effects of burning on a body but the traces left in the archaeological record from the actual pyres.

The detail examination of the pyres after cremation presents some interesting insights into the formation of the archaeological record. The use of visual analysis, gradiometer survey and magnetic susceptibility mapping at (25 cm intervals) on burnt areas especially the pyre-base (the area directly beneath the ash bed) gave some interesting results. Marshall noted that magnetic susceptibility mapping can distinguish between different pyre designs (e.g. box-

pyres of log-edge type, ring pyre and box-pyre of simple stack and frame). The results from the experiments helped in identifying box and ring-pyres at the Bronze Age site of Guilting Power 1, England, and thus the experimental data could be directly linked to the excavated archaeological evidence. His findings also demonstrate the benefits of conducting routine magnetic susceptibility mapping as part of an excavation strategy on such sites.

The second paper explores the issue of the storage of grain in pits during the Iron Age. Again, this is not something that is new, however, Marshall explores the issue of storage pit covers, the use of unsealed, but weather-proof rock-cut silo pits and compares the results from these unsealed large storage pits with sealed small storage pits for storing grain over the winter. One of the major issues when storing grain in pits is the suitability of the pit to keep the grain in a good condition for consumption and for planting. Marshall found that there was only slightly less grain spoilage in the unsealed pits compared to the sealed pits. He also suggests that the size of the pits may reflect the use of the grain after storage i.e. for replanting or consumption and that unsealed pits give similar aerated storage conditions as above ground granaries. As the results are in contrast to previous grain storage experiments (for example: Reynolds 1974), the experiments indicate that establishing anaerobic conditions within a storage pit is not the most important factor in aiding successful grain storage. However, he did find that the below ground covered pits proved to be more susceptible to environmental damage than the above ground granaries.

Marshall concludes by suggesting that the concealment of pits (sealed storage pits) was not to aid successful storage but to hide or secure the location of some of stored resources. The grain stored in these concealed pits were more likely used for replanting as the sealed element produced ideal storage conditions to encourage germination once sown. Slightly larger pits sealed pits could have also been used for a limited period after which the grain was removed or unsealed and the contents recovered for intermittent use thus the large covered but not sealed pits would have been used in a similar way as granaries.
This series of storage experiments demonstrates that storage facilities were diverse in nature and that a number of factors, including environmental factors, damage and the loss of stored resources by theft, required diversification in storage method. Marshall's conclusions are similar to those reached by Cunningham (2008, 2010) who conducted a series of acorn and hazelnut storage experiments and concluded that the condition of the nuts before storage and a number of environmental factors dictate storage methodology.

The two experiments are presented in great detail with clear aims and objectives and as the nature of any experiment should be that they are conducted, recorded and publish in a manner that makes it possible to replicate them, the level of detail presented in this publication certainly makes this possible. Consequently, the two papers make substantial contributions to experimental archaeology and to archaeology in general.

## Book information:

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