Experimental Archaeology: A teaching experiment



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Experimental Archaeology as a method for introducing first year, first semester students to core concepts

In 2022, we devised a university- and Australia- first experimental archaeology unit, using Neolithic-style pit fire techniques to produce ceramic objects. This was delivered to firstyear students in the core Bachelor of Archaeology topic ARCH1006: Sex, Death and Ritual in the Ancient World, and aimed to investigate if methods and materials used in the northern hemisphere (after experiments by Sidoroff 2019) could be adapted effectively for an Australian context. The 'experiment' was a great success; but it became so much more when the team realised the value of using this unit as a vehicle to introduce new archaeology students to key concepts in a fun, inclusive and dynamic way.

All team members have an abiding interest in clay and its use as a medium for creation (practical, architectural, ritual, recreational, and artistic) in both the past and the present. We have run the unit for the past three years, and each time have endeavoured to fuse enquiry-based and experiential learning with integrated practical experience, thereby bridging a gap between theory and hands-on learning. Content is delivered in a carefully scaffolded program incorporating different communication media, so that information can be understood and retained by our diverse learners. Students with disability and diverse learning needs are particularly welcomed, with appropriate plans in place for their safe and

Following the identification of wide gaps in graduate skillsets (Beck et al. 2020; Mate and Ulm 2016; Monks et al. 2023), the Australian National Council for Archaeological Teaching and Learning (ANCATL) developed an Archaeology Skills Passport (ANCATL 2019). Our unit consciously incorporates elements from that document to form a tangible record of student skill development, early in their degree.

Delivery

Week 1: Workshop with introduction to key theories in experimental archaeology (e.g. Coles 1979; O'Neill and O'Sullivan 2019; Reynolds 1979). Students 'play' with clay, becoming familiar with temper and foraged tools in a tactile and tangible way. We encourage open discussion, social interaction and creative freedom. In 2024, a visit to the Flinders Southeast Asian Ceramics Archaeology Lab (SEACAL) was added to the program.

Week 2: Workshop with introduction to case studies of ceramic objects in ritual contexts and phenomenology (e.g. Crown et al. 2012; Meskell 2015). Students make their own artefact, taking ritual contexts and the phenomenological experience into consideration.

Week 3: Students have their first experience of fieldwork, which takes place on campus but in a secluded location. We introduce spatial and survey methods (total station/RTK), work health and safety, geomorphology, and safe digging methods as students locate and dig the fire pits. This is entirely voluntary as it is outside of the formal semester timetable, but consistently 45-50% of students have attended each year, keen to get their hands dirty.

Week 4: The artefacts are fired in a replication of a Bronze-Age/Neolithic method. First, the pit base is baked off, then the objects are laid in the pit, and a fire is built using local blue gum, with a lattice of foraged bark and smaller branches for protection and aeration. The fire is maintained at >900 degrees Celsius for two hours (gauged according to flame and ember colour) and then covered with a thick 'blanket' of horse dung to retain heat and begin a reduction process. The following day, students excavate their artefacts using archaeological tools and methods to reveal their objects (to great excitement). We photograph the artefacts, then backfill the pits and tidy the site.

Later: In 2022, we created a special edition of the in-house student journal, Diglt, featuring student articles about their experience (Flinders ArchSoc 2022). In 2023 and 2024, the fired artefacts were exhibited in the university library, with museum-style labels written by the

Each year, at the start and end of the unit, we have collected data via student questionnaires to gauge knowledge improvement and learning experience. Students selfreported through these questionnaires a consistent 20-25% improvement in their knowledge of where ceramics might be found in archaeological contexts, and 30% improvement in understanding how EA might inform us about people's lives in the past. Students also demonstrated increased social engagement with peers and measurable improvements in field skills





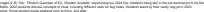


















Reflections

Several students who participated felt confident to pursue voluntary fieldwork experiences afterwards, or felt they were able to choose their degree/career path with more ease. One student who took the topic as an elective has since transferred into the Archaeology degree. The social aspect of the unit was vital in creating a sense of community and welcome, with friendships blossoming over clay and fire, and the relaxed interaction with staff facilitating a sense of safety for students to seek help and ask questions. One student with disability and social anxiety was one of the most enthusiastic and engaged when she realised she was able to participate safely in a meaningful way.

This was super fun - thank you!!!

Our team received an Innovation in Teaching Award from the College of Humanities. Arts and Sciences at Flinders University for this project.

new experiment is currently being designed for delivery in which will incorporate Indigenous knowledges and a new set of teachable skills for our future

Student Feedback

This class is great Very interesting and fun! This was a beneficial project in learning the practical aspects of archaeology / applying theory in the field Inspired by surrounding peeps Proud because I'm displaying my culture. Emotional because other people liked something that represented my culture It was a fun and wonderful experience which I wish could be a again. Thank you for everything Clay gives me sensory issues. However, it was a wonderful experience which put me out of my comfort zone Fun, creative, connected

Felt completely focussed and engrossed by the process Educational and interesting. Would do I absolutely loved working in the field... it was super informative

Very difficult, 1 don't think it's [artefact] going to survive, but really cool

'I want to thank Jenna and Susan for being wonderful and accommodating people. Thank you for everything'

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This research was undertaken on the traditional lands of the Kaurna people, and we acknowledge Kaurna Elders past, present and emerging.

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