PLYMOUTH COLLEGE of ART

making FUTURES

Communicating Archaeology: Extending the object life history framework

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Abstract

"If we accept that mind and matter achieve co-dependency through the medium of bodily action, then it follows that ideas and attitudes, rather than occupying a separate domain from the material, actually find themselves inscribed "in" the object. Thinking through Material Culture - Knappett, Carl My current practice reinterprets archaeological material through digital and traditional craft practices; I explore how this hybridised approach potentially offers a new lens through which to view the past. An object's biography is dictated by the journey it has taken and though the myriad interactions it undertakes. Over time both through human contact and varied technologies, raw materials can be perpetually shaped and transformed. I explore the post depositional life of the artefact and how through site-specific knowledge, conceptualisation and digital intervention, I engage with a new dimension to the life history framework. Tremough in Cornwall is my case study; it has been a long-standing site of 'making' evidenced through three major archaeological investigations, which suggests that this is one of the earliest sites of metal casting in the UK. My reinterpretive works are based upon the prehistoric Tremough finds, which are stone moulds, bronze artefacts and ceramic sherds & vessels. Artefact 'life history', or object biography suggests artefacts as a sequence of activities and interactions travelling through a suggested lifetime. This involves the procurement of raw materials, the manufacture or making process, and a final resting place in deposition after record, however life history might also include the reuse or maintenance of an object. I am affecting the life history of the Tremough finds through contributing to this sequence of interactions by proposing a continuation and reinterpretation of finds as a post depositional 'formation process.' Reanimating objects or engaging a 'transformation,' creates an active material culture. To negotiate the place and use of the digital tool within this enquiry I strive to understand the relationship between people/technology and place over the longue dureé. By using digital tools it is possible to further enhance the material and work into it on a new level, allowing in some cases for the invisible to be made visible as part of the journey. The objects therefore have unique extended biography, stretching out over time. I am suggesting a reconceptualisation of the object as a complex arrangement of interactions. It is interesting to think of both object, person and technologies as 'performative assemblages,' made up of a series of relationships and so I consider how people 'interpenetrate' in their understanding of the past through objects produced in the present.

Can the reinterpretation of site-specific archaeological material, through digital craft practice, offer a new lens through which to view the past?

Archaeology strives to bridge the gap between past and present, aiming to improve the type and quality of communication to public audiences by seeking new ways of interpreting and expressing finds. '*Craft practices provide a yet untapped route to this communication despite maintaining direct links to ancient cultures through material engagement and process*.' (Ingold 2013). There is currently no data on public response to practice-led collaborations between crafts practitioners and archaeologists. Historically, archaeology has been communicated through museum display of artefact, academic publication, lectures and public talks at monuments, museums or excavation sites. I knew that within the field of archaeology, digital reconstruction of site or object didn't amount to creative reinterpretation, which might define this communication in a new or different way. Fusing material and conceptual exploration, I can achieve a '*critical making'* that also engages both modern and prehistoric site technologies. The interaction between humans and technology is an aspect of a role played by the object through time space and social context.

I approach the reinterpretation of archaeology uniquely through digital craft practice, relying upon process, materiality and the tacit made explicit through critical reflection (Sennett 2009).

Clearly, insights gained by a maker are different to those gained by an archaeologist or historian, several of whom have engaged artists and responded in some way to their creativity (Garde-Hansen 2012). Reinterpretation through artistic practice is certainly established; and studies have (Roberts 2013) investigated contemporary sculpture as an interpretive resource for archaeology. However, analysis was restricted by the lack of data relating to visitor experience. Meanwhile experimental archaeology explores tactile understandings of material engagement and is primarily concerned with reproduction. The value of experiential and experimental research has certainly helped a great deal in enhancing both the visitor experience and research agendas within archaeology. The use of the digital within archaeology enables reconstruction as both *virtual* and *physical*. There is increased use of the *virtual* recreation of scanned sites and artefacts, with excellent examples of digital technology used in *physical* craft reconstruction, such as Jennifer Gray's Pictish drinking horn fitting. (2013)

In order to engage a different dialectic, I work collaboratively with archaeologists, digital experts within a range of fields, artists, designers, craftspeople as well as heritage and museum services. There are many different ways to solve a problem; creative, intuitive leaps, according to Sennett, are all about 'adjacency' and walking a path between disciplines. It is through collaboration that we have been able to better understand making practices. Professor David Gauntlet in his recent publication, 'Making is connecting,' considers that ideas, learning, and knowledge come from within the practice of making and also through collaboration. I acknowledge that although I am the conceptual director of my practice, I am also working closely with archaeologists and ultimately sharing aspects of the making and curating process with others whose skills and knowledge in their own fields, far outweigh my own. I choose to reveal these 'makers' and in so doing my collaborators become yet another part of the 'operational chain'. Digital processes used in conjunction with craft practices enable me to push boundaries and physically manifest works that would be impossible to visualise otherwise. Having also been able to map these interactions through from excavation, I am revealing a new aspect to the object biography.

An object's biography is dictated by the journey it has taken and though the myriad interactions it undertakes. Over time both through human contact and varied technologies raw materials can be perpetually shaped and transformed. I explore the post depositional life of the artefact and how through site-specific knowledge, conceptualisation and digital intervention, I encourage an extension to the life history framework.

I produce a range of works which reinterpret archaeological material through the marriage of digital and traditional practices; I explore how this hybridised approach offers a new lens through which to view the past. The works map a specific space/place over time. Tremough in Cornwall is my case study, a triangular plateau above the town of Penryn in mid Cornwall, overlooking the Fal estuary and the Carrick Roads, historically one of the busiest waterways in Cornwall and now home to Cornwall's University. It has been a long-standing place of making for over 4000 years, as evidenced through three archaeological investigations. My reinterpretive works are produced by bringing together a broad range of equipment, processes and expertise available on this very site. Working with the local archaeology unit, Cornwall museum service and Hexagon Metrology has meant that I have been able to access the finds and scan many of the 4000-year-old moulds before they entered the museum archive. With only one publication available, and this being purely factual and archaeological in format, I needed to establish a greater understanding of the site and material context. I am fortunate to be able to work with Andrew Jones of the Cornwall Archaeological Unit.

Craft practice increasingly moves into an expanded field. There are many examples of cross discipline collaboration serving to invigorate scholarly and scientific inquiry, aiming to bring solution to highly complex concerns, extending into areas such as science, technology, education, and the arts. The future for Craft relies upon our ability to shapeshift, diversify and permeate, we are steadily becoming recognised for our unique approach to the use of varied processes, and our deep knowledge & understanding of the properties and qualities of materials.

Archaeology is continually challenged to remain relevant, however this complex discipline**,** is advancing rapidly due in part to the development of increasingly sophisticated digital scanning and mapping. I spend a good deal of time immersed in the field, being a guest at digs, attending and presenting at archaeological conferences. It was only through this level of immersion that I began to witness commonalities rather than the more obvious inherent differences.

The study of things has been at the very heart of the discipline since its inception in the late 19th Century. A shared interest in cultural theory is central to this investigation. There seems to be no unifying theory of materiality. It is clearly an infinitely complex subject, context dependent and directed by material and human action, with the notion of agency becoming a central component. Archaeologist Karl Knappett in, 'thinking through material culture,' sees '*real potential for building a more broadly-based understanding, relevant to the past, the present and the future*.' He acknowledges the increasingly specialised nature of academic research but still strives to create and consider an integrated 'body of theory,' which draws upon a wide range of disciplines. Knappett also uses the term 'hybridisation' to describe the connections made between different fields in search of common ground.

There are clear theoretical connections as far as archaeology and craft are concerned. There is a shared interest in object orientated ontology; a term coined by philosopher Graham Harman in his 1999 text 'Tool-Being,' referring to theory which rejects the privileging of human existence over the existence of nonhuman objects, he extends out from Heidegger's tool analysis to look at creating an ontology of objects. Deleuzian assemblage theory also helps to consider how objects might come together, suggesting a shift towards an arrangement of particular relationships over time. The notion of an assemblage is widely utilised in archaeology and remains to act as a classificatory tool. Jane Bennett, (2010) in her book Vibrant Matter explains how the made thing is both an assemblage in its own right and contributes to a growing assemblage of the human and non-human. These theories push toward a succinct conceptual tool used in archaeological and anthropological theory, and entirely apt for exploring the process of reinterpreting materials and objects from the origins of craft production.

A life history framework, otherwise known as an object biography was first mentioned in Arjun Appadurai's 1986 book The Social Life of Things. He suggested that objects might be considered as a sequence of activities and interactions travelling through a suggested lifetime. This Involved the procurement of raw materials, the manufacture or making process, and the final resting place in deposition. However, life history might also include the reuse or maintenance of an object. Over time, through human contact and varied technologies, raw materials can be perpetually shaped and transformed. Anthropologist Ruth Tringham sought to understand the ways in which objects may be invested with meaning through social interactions. What I find most interesting is that this implies that meanings change and are renegotiated throughout the life of the object and that further interactions with environmental factors, people and a broad range of tools, bring additional layers of meaning to the object biography. Behavioral Archaeologists Schiffer & Hollenback go further and propose an extension to the life history framework to include technologies and associated material practices claiming a reconceptualisation of the object as a complex arrangement of interactions.

In 2016 the Theoretical Archaeological Societies annual conference presented a series of sessions, which were set to establish a clear connection with the 'theory of practice' in archaeology. In one of these sessions, entitled Digital Visualisation beyond the Image: Making in Practice, artist Stefan Gant, a fine artist from the University of Northampton and Dr Paul Reilly, an archaeology researcher at Southampton University, presented details of a dynamic collaboration with a performative element. They contended that marks and memories of both artist and archaeologist alike intra-actively emerged through the object of study, the tools of exploration, and the practitioners themselves. They focused particularly upon the actions involved in remote sensing, surveying, mattocking, troweling, drawing, photographing, videoing and sound recording. The resulting marks, digitally recorded, represented the signatures of the practitioners, the voice of the deposits as well as the imprint of the tools, and their interplay.

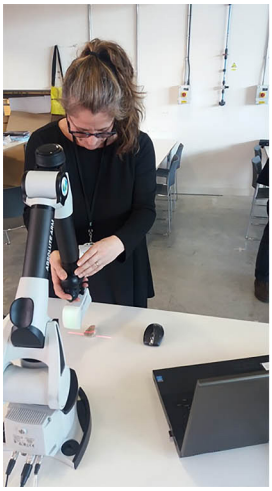
Archaeology departments are also looking for ways to diversify, the department at Southampton University is set to instigate a new impact-related initiative, called Archaeology for the Creative Industries (ACI). ACI claims to create cultural capital through the translation of archaeological research in new and exciting ways, and to provide measurable economic benefits to organisations and regions. They cite examples including consultancy roles for Damien Hurst's major exhibition Treasures from the wreck of the Unbelievable, a gold medal winning Chelsea garden, TV and radio documentaries (Digging for Britain), research collaborations with Winchester School of Art in the creation of new art works and exhibitions, and a continued partnership with the Crafts Council.

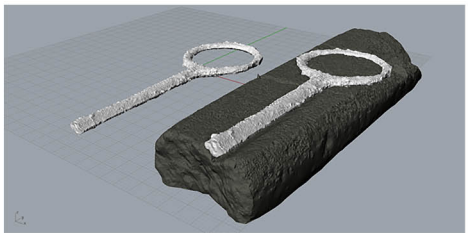
My own interdisciplinary venture began in 2012 with my involvement in this partnership. Creativity and Craft Production in the Middle and Late Bronze Age or (CinBA) was a major 3-year HERA-funded project involving several UK Universities, and a number of European partners. A specific concern was to explore the role that the contemporary craft maker might play in archaeological enquiry. This project moved to understand creativity through the time depth offered by archaeology with a focus on craft, prior to the separation of art from the domestic. The project looked at providing the basis for new types of heritage experience in which creative potentials of objects were more imaginatively explored. There has since been an acceleration in the involvement of craftspeople and artists in archaeological enquiry, particularly referring to the use of the digital.

I examined and responded to finds excavated by the Cornwall Archaeological Unit at the University site in Penryn, Cornwall, formerly known as Tremough. In addition to pottery production, there was evidence that Tremough was one of the earliest sites of metal casting in the UK. This seems to be of particular relevance as the site can be claimed as a place of making for over 4000 years (Jones 2013) and now boasts an expansive educational site where digital tools and processes penetrate every creative discipline.

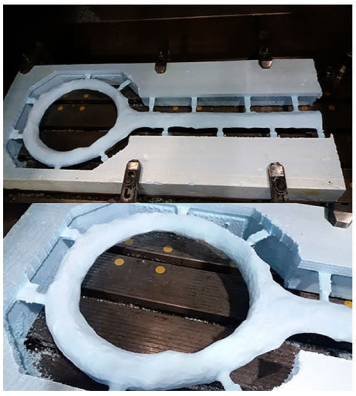
In 2011, a three-piece fractured stone mould was discovered inside a dwelling, under what is now the university staff car park. The three parts of this mould were digitally scanned and transferred into data before

being converting to useable files. The virtual recreation of the mould fragments allowed for the creation of a 'virtual,' pin. Firstly, a 3D printed resin model was made. From the resin pin, a silicone mould allowed the production of several injection moulded waxes, these were attached to a core for Bronze casting. The Bronze pins produced are direct digital reproductions of the pins which could have been produced in this very mould 4000 years ago.





Eventually, a 1.5 metre pin was milled in sections from foam inside a digital milling machine. The foam model was then used to produce a plaster of Paris mould. With the two-piece press mould, I was then able to produce several large-scale pins using my own gabbroic clay mixture.



This unique clay was used to make Cornish gabbroic pottery in prehistory originated around the gabbro rock outcrop in a small area of the Lizard peninsula. During the 1960's, Professor David Peacock confirmed that iron rich Gabbroic clay found only on this site was used in the production of pottery in Cornwall from the Neolithic period and continued for approximately 5000 years.

The large Gabbroic clay pin was purposefully dropped on site at Tremough, the smashed pieces were then buried in different locations on the site and mapped using GPS co-ordinates. The process of reclaiming the fragments could be carried out through the exhumation of the sherds. The pin could even be reconstructed if the pieces were ever to be recovered.

This process mirrors the deposition of significant objects, a practice which took place frequently during the Bronze Age to mark an ending or the leaving of a place.

To negotiate the place and use of the digital tool within this enquiry I bridged the relationship between people, technology and site over the longue dureé. I affect the post depositional life history of the Tremough finds through a further contribution to their already established sequence of interactions. Reanimating objects or engaging a 'transformation,' means that in a sense I am recycling. I aim to provoke an understanding of the past through objects produced in the present, by alluding to our association with the everyday and the domestic.

I endeavour to commute between past and present and from one culture to another, perhaps to illustrate that the human condition hasn't changed all that much, in stark contrast to our comprehension of the world, which has expanded exponentially. I produce resonant works using a variety of appropriate materials, they allude to function, borrowing and abstracting meaning and significance from both domestic and ritual objects in order to create contemporary indicators. Our drives and needs remain the same, as do our most basic preoccupations, hopes and fears. I explore the presupposition that in the process of making and in the use of material, we truly encounter, relate and communicate a degree of shared experience and understanding. Although I reinterpret and translate what I consider to be significant; I often produce things alluding to function; purposely fraudulent. Bronze Age shards are dug from the site, thin sectioned then scanned at the highest resolution available, all through the utilisation of site specific equipment. Imagery is transferred using digital print whilst detailed quantitative data is translated to binary code for Jacquard weaving.

I move from the machine to the hand in terms of production and what has emerged from my movement between disciplines, the digital and manual, from the personal to the collaborative and from past and present, is what Matt Ratto (*Associate Professor in the Faculty of Information at the University of Toronto*) describes as a 'critical making,' a kind of combined material and conceptual exploration which acts to promote novel understandings. Whilst exploring key commonalities has helped to progress the existing dialogue between disciplines a new dialogue emerges to contribute to an interdisciplinary model for practice. There is a developing ontological framework for reinterpreting objects of the distant past, in exploring these possibilities I have simply become part of an assemblage as it expands, shuts down and reforms through time.

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