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MAKING PREHISTORIC CLOTH: EXPERIMENTAL ARCHAEOLOGY AND EXPERIENTIAL RESULTS

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Abstract: Stylistic typologies dominate the way textile tools are interpreted for Iron Age Britain. Though this analysis may be useful for relating multiple categories of artefacts across time and space, it does not produce adequate data for understanding tool function or technological variability. To understand how Iron Age people produced cloth with warp-weighted loom technology, we must also understand how textile tools may have related to each other. The chaîne opératoire of textile production is complex and its interpretation cannot be understood in simple terms. Because there are so few preserved textiles from this prehistoric period, what can be learned of textile production must be investigated through the tools from a functional perspective. An analysis of loomweights, spindle whorls, long-handled combs, and needles, and the range of their functional characteristics, has been the primary focus of the author's doctoral study. Though this research has revealed vital information about the life history of the respective objects, a functional analysis is still restricted in how it can answer certain questions. When used appropriately, experimental archaeology affords the ability to assess variables within physical space that can bear fruitful insights otherwise unobtainable in theoretical considerations. This paper summarises an experiment involving triangular clay weights, spindle whorls, and long-handled combs that are based on the small finds from Danebury hillfort. Part of this summary includes personal experiences as an experimenter and a crafter and how these experiences encouraged a discussion of technique. Furthermore, both experimental archaeology and experiential perspectives are shown to have interpretive value when relating these results to the archaeological evidence.

Keywords: experimental archaeology, experiential perspective, textile studies, Iron Age archaeology

Introduction

Commentary on the experiential aspects of experimental archaeology is relatively scarce in published academic research. This may be partially due to the lack of significantly structured methodology for conducting, presenting, and discussing this type of research. However, experiential aspects can enhance our understanding of experimentation and perception. Empirical data that is generated from a functionalistic perspective conflicts with the interpretive approaches from a post-structuralist perspective. There are problems of reconciliation between them (Shanks and Hodder 1995) which is prevalent in the study of textile tools from Iron Age Britain. On the one hand, textile tools are useful indicators of function relating to fibre processing, spinning, and weaving technologies. On the other, they can convey aspects of society which are otherwise difficult to discern archaeologically. The recently excavated Harwell long-handled comb is an exemplar (Fitzpatrick 2020). Long-handled combs have a complicated history of research where their function as a textile tool is debated (*e.g.*, Bulleid and Gray 1917; Roth 1918; Tuohy 1995; Bailey 1999). However, the anthropomorphic style of the handle is exceedingly rare in the British Iron Age (Fitzpatrick 2020). Reconciling the functional and stylistic attributes of long-handled combs remains difficult. Merging the utilitarian and stylistic attributes of textile tools together is a prerogative, on the premise that neither attribute can be understood without knowledge of the other. Conducting experimental research that explores the utilitarian function of tools helps to contextualize some of the potential reasons why certain stylistic attributes may exist, and how stylistic attributes may have impacted the range of utilitarian functions of tools as well.

Herein lies the primary challenge this paper focuses upon—just as it is imperative to understand utilitarian and social functions of material culture, so it is important to understand why experiential information is critical to how insights are discussed, and the results of experimental archaeology are interpreted. This influences the way experiments are designed and the potential impact the results have on the way archaeological narratives are created. Similarly, exploring the experiences gained during experimentation can feed back into experiment design, as well as provide useful insight relating to technique. To begin, experimental archaeology within textile studies is attenuated to provide the necessary background for the experiments discussed in this paper. Though

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discussed less frequently in published literature, examining the experiential aspects of textile production offer favourable prospects for understanding social motivations for change (see *e.g.*, Pepper 2019). The remainder of this paper focuses on a single set of experiments derived from an assessment of the Iron Age textile tool assemblage from Danebury hillfort in Hampshire, UK. The discussion highlights the relevance of the experiential perspective.

Experimental archaeology has become well-rounded in its methodology and conceptual framework (Outram 2008) in the 21st century. Few would argue against its utility in helping archaeologists understand the physicality of craftwork, animal husbandry and agricultural practices, and structure-building, and the scale of creativity present in prehistory (Bender Jørgensen *et al.* 2018). Extensive experimental programs demonstrate how knowledge is developed through several episodes of experimentation (Olofsson *et al.* 2015) and the types of results that can be achieved through collaborative efforts, and how criticisms of experimental practice (*e.g.*, Hudson 2014) can be useful in refining that practice (Kania 2015). For example, the experiments conducted at the Centre for Textile Research (CTR) were aimed at developing a comprehensive understanding of Bronze Age textile production in the Mediterranean (Olofsson *et al.* 2015). It has been influential in driving ancient textile studies as well as establishing methods for conducting textile production-specific experiments. Hudson (2014) focused the discussion on the spinning portion of the CTR experiments, citing that decisions made during this phase could have crucial ramifications on the weaving experience, and that the crafter had significant influence over the suitability of the yarn. Similarly, Kania (2015) demonstrated the importance of the crafter, who has greater influence over the yarn than the whorl or fibre. As a follow-up to Kania (2015), Ciccarelli and Perilli (2017) examined the role of the crafter from both an anthropological and archaeological perspective, and concluded that there is no equivocal answer to the question of whether it is the tool or the spinner that influences the resulting yarn the most. These criticisms of the CTR experiments have been instrumental in refining experimental archaeology in textile studies Therefore, the CTR experiments have heralded a new foundation for experimental practice in textile studies, yet there is no one clear answer. One way forward may be in capturing and discussing experiential responses during the experimentation process.

The methodology and theoretical framework for capturing and discussing the experiential results from experimentation is less well represented in published format. From a learning and a teaching point of view (Beamer 2020), experiences have the potential to raise awareness of what biases may exist, where there might be incomplete knowledge, and how to guide research projects by revealing new areas for potential development. Harris (2008) demonstrated the need to utilize experiential data in relation to research on textiles since our current understanding is typically restricted to modern, western perspectives of cloth. Additionally, in the work conducted by Davidson (2016) of the burial dress of children in London in the nineteenth century, the study investigated the value and appropriateness of emotional responses in archaeological research. At times, it was a neutral, scientific experience; at other times, it seemed personal. Emotional responses evoked in a researcher who removes a tiny finger bone from a glove for academic scrutiny can reorient the state of mind of the researcher (Davidson 2016).

In a skills-based analysis of a technological transition period in medieval England, Pepper (2019) highlighted the importance of experience in experimentation to contextualize questions relating to efficiency. Pepper (2019) noted that the experience and expertise of using the warp-weighted loom differed from the new treadle looms, where skill was transferred from the weaver into the engineering of the treadle loom. Whereas it is useful to consider ethnographic research to address questions of efficiency, as in the discussion by Tiedemann and Jakes (2006) about thigh-spinning versus spindle spinning, it may not be as appropriate to design a targeted experimental program in this way. Harris (2019) described the role of sensory perception of textiles by moving beyond the technical and scientific methods of analysing textile remains and interpreting them based on their morphometric attributes; instead, Harris (2019) contextualized this data according to visual, haptic, and olfactory senses to emphasize how textiles afforded people to be who they were, how they lived, and how people constructed their material worlds.

Textile Production in Iron Age Britain

The author's doctoral thesis project took a multiscalar approach to the study of textile tools and production in Iron Age Britain and has done so through an in-depth study of the tools and their functions and re-evaluated their placement within the operational sequence. It also considered the nature of textile tool deposition and how this behaviour impacted their interpretation as both utilitarian and social tools. The ongoing thread throughout the thesis was to examine these objects from various scales of analysis to assess how they operate individually and as part of an assemblage, both in utilitarian and social terms.

There have been many depictions of British Iron Age clothing in research. In reconstructions, Iron Age people are clothed in a way that convinces us that the clothing they are depicted wearing could have been woven with the technologies available to them.[i] However, these reconstructions of dress also present a disparaging challenge of how Iron Age textile technology might have realistically functioned and in what follows: stitching, seaming, tailoring, layering, and clothing; ultimately, fashioning. Attending to this discussion requires an awareness of the textile tools and the operational sequence.

'Crafting' is often understood to be an unstructured system of exploring and experimenting. The distinction of craft versus technology also creates unnecessary divisions, where 'craft' has been devalued and 'technology' equates to process only. As stated by Burke and Spencer-Wood (2019: 2), 'craft' intersects with psychological, political, environmental, social, and physical worlds. These types of separations are felt most strongly when comparing perishable and non-perishable technologies. Perishable material culture, by virtue of its ephemerality, are often marginalized in narratives of prehistoric societies because little evidence exists. Poor preservation of textiles at Danebury leads to experimental archaeology being the only reasonable opportunity to understand cloth products. Mediating between crafter/researcher/material/technology and the specialized nature of textile studies in prehistory (especially where conditions are poor for preserved textiles) make methods of conveying experience fundamental.

The majority of textile scholars who have evaluated the non-perishable textile tools for Iron Age Britain have done so through typologies, usually of style, and by using related analogies from similar technological systems elsewhere to support claims of function (Hedges 1973; DeRoche 1995; Tuohy 1995). Though some scholars have pushed further into critiquing the assumed utilitarian function of these tools for the British Iron Age (DeRoche 1995; Tuohy 1995), little progress has been made in rectifying persistent questions in part because there have been too few British Iron Age textile scholars since then. These questions include determining whether heavy loomweights could serve the purpose of weaving (Shaffrey 2017), what distinguishes spindle whorls from beads (Liu 1978), or if all long-handled combs were used as weft beaters (Tuohy 1995). These technical functions and an evaluation of their utility provide the evidential background we use to construct our view of Iron Age society, but without a more critical analysis of their utilitarian function, we continue to build upon a foundation comprised of unconfirmed assumptions. Though some assumptions will always be part of our analysis, we can find ways to address the likelihood of usage and cite the evidence to support our interpretations.

Experimental Setup

This experiment analysed the functional aspects of textile tools via the operational sequence. One case study site, Danebury hillfort, Hampshire, UK, and the tools excavated from the interior (Cunliffe 1984), were used to create modern proxies for warp-weighted loom weaving. A warp-weighted loom is a type of vertical loom which uses heavy objects, typically called loomweights, to tension threads. Three tool types were utilized: spindle whorls for making yarn, loomweights for tensioning cloth on the warp-weighted loom (Pepper 2019: 73, Figure 4), and long-handled combs for weft beating. Each proxy was modelled from selected objects based on their preservation status. Linen yarn was chosen based on microenvironmental data (Cunliffe 1984: 487[ii]). A pilot experiment confirmed the appropriateness of the setup prior to beginning the two-stage experiment. The questions explored by this experiment included:

1. Can heavy loomweights function on the warp-weighted loom?
2. Can linen yarns support heavy loomweights?
3. Do the selected tools represent local production capabilities?

Though the full extent of the reasoning for these questions cannot be fully attenuated here, it was crucial to first confirm the utilitarian function of heavy loomweights. Equally, it was pertinent to also consider local production because importation of materials, such as yarn, suggests a higher level of regional organization and modes of production that have not yet been confirmed. These questions represent a starting point in an ongoing experimental program designed to build up evidence through experimentation.

A large wooden frame provided the rigid structure of the loom. Yarns were attached to the top beam of the loom, forming the warp threads, and were divided into front and back rows of threads. These were tensioned with loomweights. The yarn woven between the warp threads is called the weft. The most basic type of weave structure, tabby, was utilized for this experiment. The same yarn used for the warp was also used as the weft. A long-handled comb replica[iii] was used to push weft into place, and a wooden sword beater of a modern design was used to compact the weft between each row.

The experimental setup was split into two stages. The first stage explored whether linen could support heavy loomweights. Warp tension is important for setting up the warp-weighted loom and for the ease of weaving. The upper bound for weaving wool comfortably was found to be 30g of tension per thread, a conclusion that was arrived at empirically and by assessing the judgement of well-practiced weavers who specialized in ancient methods of production (Olofsson *et al.* 2015). For this experiment, the calculated warp tension was 28g per thread, and 72 threads per loomweight (Figure 1). This tabby cloth produced a density of 15 warps by 5 wefts per cm^2.

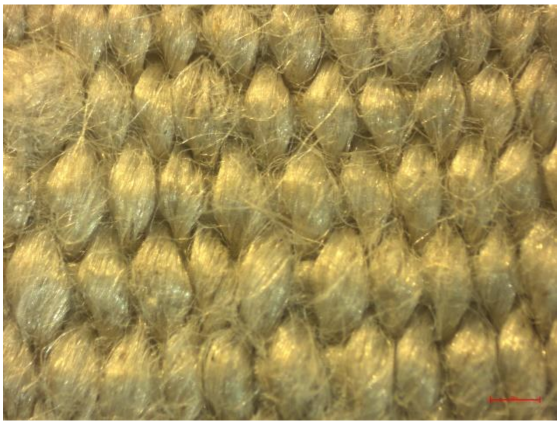

Figure 1 Linen cloth woven in tabby weave. 28g of tension per thread. Photo credit Jennifer Beamer.

The second stage of the experiment involved doubling the tension, to explore the upper bound of tension that flax can support without compromising the weaving experience. The second stage had 56g per thread and 36 threads per loomweight. The density produced in this tabby cloth was 8 warps by 8 wefts per cm^2. The results can be seen in (Figure 2). Both stages were conducted within identical conditions, therefore the differences observed in the cloth represent a direct relationship to the variation in warp tension. The two-stage experiment revealed aspects of craft practice that were not previously known. By modulating the warp tension, from 28g to 56g per thread, two appreciably different fabrics were created. The lighter tension (28g) setup produced a heavy, dense, inflexible cloth and the heavier tension (56g) setup produced a light, gauzy, flexible cloth. If the yarn and loomweights remain constant variables, the relationship between fewer warps and heavier tension is recognized.

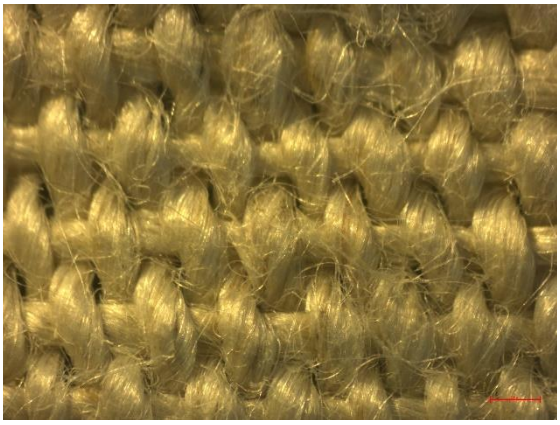

Figure 2 Linen cloth woven in tabby weave. 56g of tension per thread. Photo credit Jennifer Beamer.

Production tools are often our only available source for discussing perishable material culture in prehistoric societies. This experiment has shown that a simple technique, modulating warp tension by increasing or decreasing the density of warp yarns, could create a wide variety of fabric types. A Bronze Age cloth made of nettle fibre, recovered from Whitehorse Hill in Dartmoor, is broadly similar to the dense cloth (28g) produced in this experiment (Harris and Jones 2017). The researchers noted 22 threads in one system and 5 to 6 threads in the opposing system. Therefore, it seems plausible to suggest that the Bronze Age textile examined by Harris and Jones (2017) could have been produced in the manner outlined in these experiments; equally, the Bronze Age textile confirms the plausibility that the cloths produced in this experiment are theoretically feasible for Iron Age Britain. Following this, it is also reasonable to posit that Iron Age weavers may have altered the number of warp threads to create a range of fabrics to suit their needs.

The cloths produced in this experiment also provide a platform for peripheral discussions of the various roles of perishable material culture. The way these cloths behave as a material is important for considering fashion as it relates to other aspects associated with dress in Iron Age Britain, and even more broadly to encompass soft containers, furnishings, and shelters. Prior to the experiments presented in this paper, discussing cloth products was difficult because it was unknown what could be produced with heavy loomweights.

Another relevant facet of this experiment is that it demonstrates the importance of evaluating material properties. Granted, wool was likely an important material for textile production, given the emphasis of sheep husbandry in the Iron Age as a whole (Serjeanston 2007). However, this does not preclude plant fibres in importance (Barber 1991; Grabundžija and Russo 2016). The CTR experiments demonstrated the range of warp tension that would be suitable for wool that would not interfere with the weaving process. The experiment described in this paper has illustrated a different range of warp tension suitable for flax. The differing material properties of wool and flax may impact how the warp was setup too. For example, Olofsson *et al.* (2015, p. 95) concluded that "lighter and thicker loom weights would be the best choice" for making an open weave textile with thin yarns, and "lighter and thinner loom weights" would be ideal for making a dense fabric. However, the experiments conducted by the author contradict this conclusion. Whether this is due to the superior tensile strength of flax (Harris *et al.* 2017), further explorations with experiments assessing this type of question are required.

Experiential Results

Prehistoric technologies have human operators, and the creation of cultural products are influenced by the crafter. Additionally, practical concerns influence crafters, such as environment, weather, technology, and the needs/wants of the community. Recently, scholars (*e.g.*, Kania 2015) have emphasized the relative influence of crafters on the process—the experiments presented earlier show how a simple modulation of warp yarn density could dramatically alter the finished cloth. However, it is difficult to detect this type of technique archaeologically, especially in regions devoid of extant textiles, as is the case for Danebury. If only the utilitarian functions of tools are understood, the crafter represents an automated role in production. Textile production is also a social process. Each crafter has a set of experiences, craft knowledge, and cumulative expertise that impacts the craftwork. Sometimes, these influences are performed unconsciously and may be invisible at first glance (Shrum *et al.* 2005: 4). Intimate familiarity with a process allows some aspects of craft production to fade into bodily engagement, as sensory experience takes over, which is no less an active process.

Past experiments with long-handled combs, for example, have been considered in isolation (Roth 1918; Tuohy 1995) from the *chaîne opératoire*. Using a single tool type for experimentation produces an isolated experience that resides outside of the context of production. For example, a variety of yarns are produced from spindles, but not all spindle-spun yarns may have been used on the warp-weighted loom. The relationship between the two tool types, spindle whorls and loomweights, needs to be made explicit if one hopes to understand what the woven cloth may have looked like or how it might have been used. Integrating the results of those experiences into the context of production requires many assumptions, some of which may be problematic because the fuller sequence was not considered.

Working within the entire production sequence generates insight regarding the adaptability of the crafter. Haptic and olfactory senses are influential in establishing and guiding traditional practice. Bodily engagement is enacted in childhood to allow the behaviour to be fully developed and integrated by the time their productivity is required for cultural sustainability (Bird 1979). However, with little room left to discuss the role of experience in perception during archaeological experimentation, conceptualizing the influence of the crafter on the process becomes far more difficult to pursue. Subsequently, no new research about cognitive practice or perception of production, cloth usage, or deposition that can adequately capture any underlying social importance could be produced. Furthermore, there would be no discussion of 'technique', which is an aspect of production that unites experience, skill, knowledge, materials, and social needs.

What is being advocated here, is that a careful consideration of the tools used for each process in the chain link allows for a deeper analysis of the ontological framework that past peoples may have operated within. Olofsson (2015) emphasized the importance of a comprehensive approach to experimentation. By evaluating each link in the textile production sequence, a sense of the creativity and variety inherent in the crafters of Iron Age textile production can be discerned. By examining three tool types in the experiments presented here, the ways each tool had influence over each successive link in the chain could be considered. In testing the suitability of the spindle whorl proxy, for example, linen was spun by hand to determine the gauge of yarn that could be made with the selected spindle. This determination was not used to create an absolute, but it did demonstrate that the material, whorl, and spun yarn were appropriate for the experiment. At each juncture in the *chaîne opératoire,* there was also an opportunity to evaluate personal craft influence over production at each stage. For example, the author had to decide between making handspun linen, which was time consuming, or buying commercially spun linen that would suffice as a suitable proxy for the experiment. This decision bears upon the timing of the experiment, potential issues that handspun/commercially spun yarn might manifest during the weaving process, and the look and feel of the finished cloth.

A study of the technical variation of morphological features are fundamental in understanding the working parameters which Iron Age crafters considered acceptable. As a researcher, unpicking which features of the tools that might have impacted the *chaîne opératoire* overall is equally important to highlight. In the linen experiment, the comb worked equally well for both cloth types, despite the arguments outlined by Bailey (1999). The crafter plays a significant role because they could adapt their technique to imperfect tools. In Hoffman's (1964) ethnographic observations with the Skolt Lapps in Norway, this group utilised a different set of techniques for using the warp-weighted loom than their neighbours. Additionally, several long-handled combs in the Danebury assemblage had evidence of reuse, despite a missing tine (Figure 3). This shows that though tines were an important feature of a long-handled comb, they could still be used in a slightly broken state. Techniques could have been modified to accommodate different links in the operational sequence or to adapt to altered tools.

Figure 3 Danebury long-handled comb (SF679) with indications of reuse. The tine on the far left in the photo is missing but has evidence of continued usage, resulting in a saddle-shaped stub. Photo credit Jennifer Beamer.

The role of experimental archaeology in technology studies can help avoid reductionism. Multiscalar approaches to the *chaîne opératoire* and a re-evaluation based on new evidence advances the conceptual framework used to situate textile production within a wider society. Identifying the nodes in a production sequence where crafters could impact the resulting product is crucial in developing the importance of the role of crafter—they can influence how the cloth was used, how it was perceived, and perpetuate tradition. This is evident in the experiments outlined earlier—a simple decision as an experimenter afforded a discussion of a range of possible cloth types. The main difference between an experimenter and an Iron Age weaver relate to the former investigating the 'realm of possibility' and the latter who knew the way a textile should be made. Without extant textiles to consult, some areas of textile research need to consider what was possible to make with the tools recovered—in other words, technique. These aspects, in turn, influence how academics use reconstructions to present the visual aspects of past societies that most relate to people: their clothing.

The implications of practice are vast, but there is an important balance that must be struck between presenting the possibilities of craft production granted to past societies and advocating that 'they did it like this.' This intersection reveals the importance of ontological and epistemological perspectives (Crotty 2014). An ontological lens in this example implies that Iron Age textile weavers may have known a variety of ways of setting up and weaving on the loom, though they may have made a conscious decision to reject certain approaches because they are conforming to social norms. This may arise from culturally embedded knowledge of craft practice that is perpetuated as 'tradition'. This is the epistemological perspective where certain approaches to weaving prevailed because there was an underlying social practice that was shaped through the methods which guided a particular craft practice. With experimental archaeology and an experiential perspective, evaluating the range of possibility with an ontological perspective is possible. Simply because one experimenter has shown one technique for weaving with Iron Age Britain proxies does not preclude all other techniques; neither of which can truly be verified as representative of past practices.

Discussion

The experiments conducted with flax and proxies based on textile tools recovered from the Iron Age hillfort Danebury have raised important implications of experimental practice and the experiences generated through practical engagement. Examining the full operational sequence of production created a holistic view of production at a local scale. In addition, what initially began as a question of whether heavy clay weights could function as loomweights, quickly revealed the importance of the weaver as an influencer. Heavy loomweights could be used to produce a variety of cloth densities via the weaver making a choice over how many threads to attach to a single loomweight. Expanding outwards, Iron Age weavers were probably able to decide which spun yarns to use for specific loom arrangements and could visualize the resulting fabric. Iron Age weavers at Danebury were probably skilled in warp-weighted loom technology and exploited a large range of simple techniques—like the one discussed in this paper—and more complex ones, like those seen in extant East Yorkshire examples (DeRoche 2012).

In conducting these experiments, perceptions of textile production capabilities can be qualified. Shaffrey (2017) suggested that heavy perforated stone objects weighing in excess of 1.5kg could not be used as loomweights and based this conclusion on the results of the CTR experiments. However, the results of the linen experiments have shown that the CTR experiments do not produce absolute guidelines and the interpretation of the results must not be overextended. Using a combination of experimental archaeology with personal experiences as a weaver, arguments can be made which encourage a re-evaluation of current interpretive methods. The experiments conducted with proxies derived from Danebury hillfort thus far shows that Iron Age weavers may have employed a larger repertoire of warping techniques than previously realised.

Furthermore, the author's personal reflections on decreasing the number of warp yarns per loomweight raises relevant concerns over cloth and clothing and how these fabrics are depicted in reconstructions. The design of an experiment addresses a specific question, or set of related questions, but the experience of conducting the experiment can produce equally valid results. In this case, the linen experiment showed that there are areas of British Iron Age textile research which are lacking discourse. These experiments demonstrate the need to move beyond the question of whether textiles were produced, when loomweights are recovered at Iron Age sites, to asking what might have been the range of textiles produced. The shift in focus is on 'the realm of possibility', which encourages an active dialogue of textiles in areas where no archaeological examples may exist.

Conclusion

Understanding the process of making cloth and the relationships between variables has also produced fabrics that demonstrate the possibilities available to ancient weavers. Fuelled by an evidence-led approach, this experiment provided a holistic view of the *chaîne opératoire*. The Danebury textile tool assemblage was used to investigate whether heavy clay weights could function as loomweights—not only was it demonstrated that they could function as loomweights, this experiment also revealed the possibility of using simple techniques that Iron Age weavers could have employed to produce a wide variety of cloth types. Discoveries of this sort leave no archaeological impact; rather, it is through the experiences of experimenters where this information can be revealed.

Unfortunately, there are few recognized options for recording and sharing experiential data. Relating personal insights and experiences of experiments to other crafters and experimenters is fundamental in developing academic knowledge about textile crafts. Textual description, like that written here, is the traditional avenue for sharing craft experiences. Videography is a sensible way forward (Kania 2020), though there are likely many protocols and methodologies which need to be designed and archival storage requirements considered. Until there is an opportunity to discuss methods of capturing experience during experimentation, it is important to emphasise the impact experience has on the experimental process.

Experimentation is rarely completed, nor is it conceptually discrete. Multiple perspectives from a variety of modern crafters creates a pathway for meaningful discussion beyond the mechanistic process of craftwork. The theory of the mind and the theory of practice can often be in conflict. For instance, experimenting and observing the outcome can demonstrate the physical relationship between actions that could not be theorized. The way we respond to these relationships, as experimenters or crafters, can produce varied experiences. Each person brings to the experiment a set of knowledge, behaviour, experience, and understanding which influences the way they approach the question and resolve problems that arise. These experiences may relate to techniques for holding certain tools, some of which physically impacts the morphological character of tools as they are used. These experiences and personal behaviours of modern crafters and experimenters are integral in developing methods to characterize ancient production and postulating the origin of wear patterns. As experimenters, we have experiences whether it is the stated goal of the experiment or not. Employing an integrated approach involving the experiential perspective is essential for developing a dynamic approach to experimentation.

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[i] The illustration of a roundhouse drawn by Herring (2017), and commissioned by the Must Farm excavation project, offers a glimpse of the clothing being worn by various members of the household, and of a warp-weighted loom in use.

[ii] This reference relates to nettle (*Urtica urens*) specifically, though linen was deemed to be a suitable substitute for this experiment. Furthermore, nettle and flax were used throughout the British Bronze Age period and were probably spliced rather than draft spun. The evidence comes from Overbarrow and Must Farm, two sites where charred textile remains were preserved. In Gleba and Harris (2018), splicing does not specifically leave a significant archaeological trace because it is only partially retted, for the purposes of removing the inner fibre.

[iii] The replica was modelled from SF628 from Danebury.