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The object of my affection: attachment security and material culture

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ABSTRACT

Archaeological research into how objects affect us emotionally is still in its infancy, with our affiliative responses to objects – those related to socially close and harmonious relationships – being particularly understudied. Psychological research has however revealed that objects can have powerful effects on emotional wellbeing, acting as attachment figures which provide a sense of comfort and security in the absence of loved ones, and promoting the confidence to explore and develop positive relationships. Here we discuss the phenomenon of these *attachment objects*, drawing on recent survey research, and applying this concept to new interpretations of two particularly meaningful prehistoric artefacts – the Stonehenge pig ‘toy’ and the Hohle Fels ‘Venus’. We conclude that a better understanding of attachment objects will provide considerable insight into the emotional significance of particular cherished artefacts throughout time.

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Introduction

We all feel vulnerable, insecure or anxious at some point in our lives. At these times certain unique cherished objects can often hold a remarkable power to reassure us, to connect us to loved ones and to provide us with a sense of comfort and security.

Perhaps one of the most famous modern examples of one such object is a tattered teddy bear which was chosen as the most significant of nearly 3000 First World War artefacts submitted to the Memory Project of The Globe and Mail and the Dominion Institute (Figure 1).¹ This small teddy bear was the treasured possession of a girl called Aileen Rogers who, at the age of 10, sent her bear in a care package to her father Lawrence who was working as a medic during the First World War. Lawrence treasured the bear, writing in a letter:

Tell Aileen I still have the Teddy Bear and I will try to hang on to it for her. It is dirty and his hind legs are kind of loose but he is still with me.

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Figure 1. The Rogers teddy bear, CWM 20040015-001, Canadian War Museum (Length 12.2 cm, Width 9.0 cm, Depth 3.0 cm) produced 1910–1915. Insert: Rear view.

When Lawrence was killed at Passchendaele in 1917, the bear, by then having lost both legs and eyes, was found with him and was returned home, later becoming one of the most significant artefacts in the Canadian War Museum.

Unpicking why the story of the Rogers bear is so profoundly moving casts insight into the powerful role of attachment objects in our lives. The emotional significance of this worn teddy bear is driven in large part by our human responses not only to each other but to attachment objects. The initial emotional power of the bear for Aileen herself comes from its role as what is termed a ‘transitional object’ (Winnicott 1953), prompting a sense of comfort and security like that of a care-giver but in its own right, and providing a ‘safe haven’ and a ‘secure base’ to return to when a parent or carer is absent. The same transitional objects (such as teddy bears and blankets) can hold significance long into adulthood, though other objects, sometimes gifted from others, perform a similar role as sources of the same feelings of comfort and security. As a gift from his daughter, the bear also

became an attachment object to Lawrence, a source of comfort that he kept close to him until his death.

A better understanding of the basis of our attachment to objects can bring significant insights into interpretations of certain significant artefacts. Attachment objects may be personal, but structured patterns of attachment and common characteristics of such objects influence how they provide comfort and security, and in what personal, social and environmental contexts they might be found. Understanding attachment objects brings a new theoretical approach to our understanding of particularly emotionally significant artefacts in the archaeological record.

Feeling our way: archaeological approaches to affiliative emotions

Archaeological approaches to any structured emotional engagement with objects are still relatively new. We acknowledge that our lives are inextricably entangled with things (Hodder 2012; Malafouris 2015); however, our understanding of the emotional nature of this entanglement is still in its infancy. Emotions can be seen as woolly, indefinable and difficult to interpret (Harris 2006; Harris and Sørensen 2010) so research tends to focus on the social, technological and political meanings of material culture (Foxhall 2012; Tarlow 2012). Moreover to date most archaeological research which explicitly deals with emotions has tended to focus on attempts to identify the presence of individual emotions, in particular those which are aversive, such as grief (see, for example, Fleisher and Norman 2015; Grguric 2008; McCartney 2006).

While objects have been acknowledged to have agency (Barrett 2001) there has been only limited acknowledgement among archaeologists of their capacity to stimulate emotions (Harris and Sørensen 2010), in particular affiliative emotions. Some novel work has been undertaken linking emotions and materiality; for example, Creese (2016) has skilfully explored the formation and continuation of political power structures through the concept of 'emotion work' and affective technologies among the Iroquois. Hamilakis (2010, 2017), on the other hand, has been a prominent proponent of phenomenological approaches to material culture, stressing the importance of the 'affective import' of assemblages. However discussions of affiliative and affective emotions in relation to objects are often limited only to specific examples such as art objects (Robb 2017).

Archaeology struggles to engage proactively with the concept of emotion, though without it our understanding of past societies is arguably much lessened (Creese 2016; Harris 2006; Harris and Sørensen 2010; Tarlow 2012). Without an understanding of affiliative emotions concepts such as 'gift-giving' can all too easily become an apparent exercise in the exchange of obligations (Mauss 1967). Research into the dynamics between affiliative emotions and the material world provides a new avenue to our understanding of personally

significant artefacts. Here we consider objects as sources of positive affiliative emotions, focusing specifically on their role as attachment objects. We argue that affiliative emotions in general, and attachment in particular, are an essential element of the interpretation of past material culture.

Objects and affiliative emotions

Objects can stimulate feelings related to positive, supportive and harmonious social relationships or *affiliative emotions and feelings* in several ways. Things can stimulate a sense of belonging through shared meaning and identity, as hypothesised for European Upper Palaeolithic beads, which show regional styles (White 2007). In this case the similarity of such objects to all the others in one's ethnic group is key to their meaning and influences how we feel. The sensory nature of certain objects ('huggable objects') can make us feel calmer and more trusting of others (Sumioka et al. 2013; Takahashi et al. 2017). Objects can also stimulate a nurturing response (Spikins 2015, 2017; Spikins et al. 2014), and we can feel motivated to care for objects which are seen to be vulnerable or have been abandoned (Gorman and Wallis 2017). Objects can also provoke specific affiliative memories (Depue and Morrone-Strupinsky 2005).

Attachment objects are a particular class of objects which provoke positive social feelings. Such objects provoke specific emotions related to the intense closeness we feel with our care-givers as a child and with close loved ones as adults in relationships in which we feel supported and cared for.

Objects and attachment

Our attachment to objects is driven by a deeply rooted behavioural and hormonal response which is an extension of our innate mammalian attachment system (Bowlby 1969). This attachment system leads us to seek out attachment figures who provide us with feelings of comfort and security (Bowlby 1969; Gillath, Karantzas, and Fraley 2016). The secure attachment figure provides two benefits: a safe haven, and a secure base (Bowlby 1988; Coan 2008; Keefer, Landau, and Sullivan 2014). The former of these encompasses the feeling and knowledge that we are cared for, and that we have someone to go to for comfort, while the latter gives us the confidence to explore our environment in the knowledge that support is available, should it be needed (Feeney and Van Vleet 2010; Keefer, Landau, and Sullivan 2014; Nedelisky and Steele 2009). Interactions with attachment figures affect one's 'internal working model' or 'script': the way we view the world, the way we view ourselves and the way we expect to be treated by others (Groh et al. 2017; Waters and Waters 2006). Thus, attachment security fundamentally structures how we perceive and relate to the world around us.

Secure attachment is central to our emotional wellbeing and the ability to overcome difficulties, affecting how we view all our social relationships (Mikulincer and Shaver 2010). As children, loving responses to our needs and consistent support from attachment figures (such as parents or grandparents) help us to develop a secure attachment style, which then influences mental and physical wellbeing in later life (Feeney and Van Vleet 2010; Fraley et al. 2015; Groh et al. 2017; Keefer et al. 2012; Mikulincer and Shaver 2007; Mikulincer, Shaver, and Rom 2011; Shaver, Mikulincer, and Shemesh-Iron 2010; Wu and Yang 2012). One of the most significant benefits of secure attachment is enhanced emotion regulation, or the ability to feel emotions and integrate them with 'rational' thought, fostering a sense of resilience and enabling individuals to maintain a positive mood (Keefer et al. 2012; Mikulincer and Shaver 2007; Mikulincer et al. 2005; Mikulincer, Shaver, and Rom 2011; Mikulincer and Shaver 2012; Shaver, Mikulincer, and Shemesh-Iron 2010).

Secure attachment is therefore vital for our sense of comfort and security, but it also has wide-reaching effects on behaviour. A sense of attachment security enhances prosociality (Gillath, Shaver, and Mikulincer 2005; Mikulincer et al. 2005), increasing our empathy and tendency to behave altruistically, towards both those we know and complete strangers (Carnelley and Rowe 2010; Mikulincer et al. 2001; Mikulincer and Shaver 2007). Secure attachment is also key to the exploration of new situations, providing us with a secure base from which to explore our environments with confidence (Gillath, Shaver, and Mikulincer 2005; Mikulincer, Shaver, and Rom 2011) as well as facilitating increased resilience, problem-solving abilities and willingness to explore, even acting as a buffer against pain (Jakubiak and Feeney 2016; Mikulincer, Shaver, and Rom 2011). Fostering a sense of attachment security is central to child-rearing practices amongst small-scale societies such as the Baka of Cameroon (Spikins, *Forthcoming*; Hewlett, Lamb, and Leyendecker 2000).

When we feel vulnerable, anxious or insecure an attachment figure can restore our sense of attachment security. Whereas in other animals attachment is limited to care-givers who are present, our capacity for attachment relationships has extended to cover nonhumans, such as pets, inanimate objects, places or even abstract concepts (such as love or justice) (Allen et al. 1991; Barker et al. 2010; Beck and Madresh 2008; Friedmann 1995; Zilcha-Mano, Mikulincer, and Shaver 2012). We can gain similar feelings of comfort and security from these 'proxy' nonhuman attachment figures as from their human counterparts, a major advantage in insecure environments or for insecure individuals (Keefer et al. 2012; Keefer, Landau, and Sullivan 2014).

While the importance of attachment objects has long been recognised by child psychologists (Winnicott 1953), it has taken longer to recognise their significance to adults (Arnould, Price, and Curasi 1999; Gjersoe, Hall, and Hood 2015), perhaps because adult attachment objects typically differ in character from those we select as children. We perceive objects as having agency

(Barrett 2001); however, they are of course physically unresponsive. Objects make us feel secure *because* of their inertness, however, rather than in spite of it, providing both a permanence and portability that can be lacking in other people. Adult attachment objects often function at first as mnemonic devices, providing reminders of significant places, people, or events – often reminding individuals of other attachment figures – and their initial meaning comes from these memories (Diesendruck and Perez 2015). Objects are however not just proxies; this term denies them their full agency and infers material passivity, as if they are just stand-ins for others (Olsen 2010). Instead, over time, attachment objects become important subjects in themselves (Foxhall 2012). We imbue these objects with memory and meaning and become attached to them, and they become important in their own right. They invoke feelings of comfort and security, with the initial memories no longer necessary to evoke these feelings.

The modern material culture of attachment

Our research into modern attachment objects has provided useful insights.² Not all objects which are seen as being highly emotionally significant are attachment objects; for example, family heirlooms can be valued for their ancestry and a trophy might remind us of a sporting success. However, unique cherished objects which are acknowledged to provide a sense of comfort and security are remarkably common. Such objects tend to be much cared for, typically often handled and portable in nature. In many ways such objects are similar to childhood transitional or attachment objects, with sometimes the same cuddly toy carefully looked after from childhood. However, whereas children crave and need proximity to their attachment object, proximity is not as essential to adults. Adults also develop a subtly different and more dynamic relationship to cherished objects, much as adult attachment to their partners develops childhood attachment patterns into a more mutually dynamic context (Mikulincer and Shaver 2010). Adult attachment objects are not just *providers* of comfort but tend also to be *cared for*. Some treasured objects recorded in our study were treated in an almost reverential manner in order to care for and preserve the object. One participant chose to talk about a mug that she had bought for her late father when she was a child, which had come into her possession after his death. He had never used the mug, keeping it instead as an ornament, and she continued not to use it, and never allowed anyone else to, because she did not want it to break. She keeps the mug in a cupboard with all of her other cups, but states that 'If I hold it or even look at it ... I am filled with all the love I felt from him'.

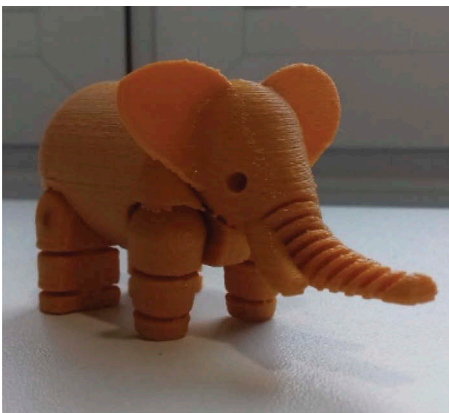
A common theme throughout all of the objects mentioned in the survey was that they were originally gifts, or reminders of a loved one. Many of the respondents noted that they derived comfort from the object's associations with people who cared deeply about them. Objects seem to act like a

safe supportive friend. As gifts, however, such attachment objects can be very varied in form and whilst sensory qualities such as warmth and softness are important in children's attachment objects, they are less essential to adults.

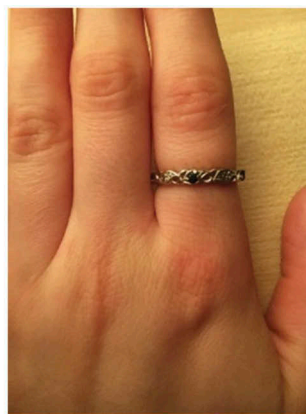
Some attachment objects are soft and 'huggable', for example a toy guinea pig, described as 'multi-coloured yellow, brown, white and very soft,' which was described in these terms: 'I suppose it comforts me a lot because he's been with me through everything, so it's a very stable presence. It reminds me of being at home with friends and family.' Others are hard but highly portable and wearable, for example two silver bracelets (one charm bracelet and one bangle) which were described thus: 'I get some of the same comfort from wearing these two bracelets as I would from speaking to my parents or grandad...' The creation of something as a gift can be particularly important, as in the case of a 3D-printed elephant (Figure 2(a)): 'My brother made it for me when I left home for undergraduate, I've kept it the whole time ... It just reminds me of home when I feel homesick.' However, objects can remind us not of one person but of a whole family in the case of a treasured eternity ring heirloom (Figure 2(b)) with this description:

It reminds me of [my grandmother], and also of my family because we'd all spend time together when we saw her. I think there is a particular comfort in feeling close to family even when they are far away or no longer here.

Some people were very aware of the feelings of strength and resilience associated with their object. A dark brown teddy bear (grizzly bear), with patches of fur missing and a slightly damaged nose has this description for example:



(a)



(b)

Figure 2. (a) A 3D-printed elephant, and (b) An eternity ring, described by respondents in our survey. (Authors.)

He has a patch of fur missing on his neck from where I lay on him to sleep during difficult times and that reminds me when I feel scared that I've survived difficult things before and of my family so I know that I'm not alone.

Object attachment results from a deep-seated psychological need for emotional support, a need which is not always fulfilled by other people and which is not merely a representation of a modern, capitalist obsession with material things. Rather, attachment objects function for the benefit of our wellbeing, prosociality and ability to adapt to adverse circumstances (Keefer et al. 2012; Keefer, Landau, and Sullivan 2014; Mikulincer and Shaver 2007; Mikulincer, Shaver, and Rom 2011).

Cherished prehistoric artefacts: insights from attachment

An understanding of attachment objects allows us to reconsider how some apparently significant artefacts are interpreted. Archaeologists often struggle to interpret items which do not neatly fit into existing palaeoeconomic interpretations. In many cases such objects are forgotten or attributed to vague ritual or symbolic reasons (Langley 2017). An attachment perspective of the archaeological record recognises how some objects can in fact be vital emotional tools.

Stonehenge pig 'toy'

One such item is a small figurine, thought to represent a pig (or less probably a hedgehog), discovered in a pit dug into the top of the Stonehenge Palisade (Figure 3). It was one of a number of deposits found in a very young infant's grave dating to the Middle Bronze Age (J. Pollard: personal communication, November 28, 2017). The item is very small, only 55mm in length, with small stubs for legs and large, floppy ears, and has been interpreted as either a crudely carved 'plaything' or a piece of representational art (ibid.)

The Stonehenge pig attracted the attention of the media at the time of its discovery, being lauded as 'Britain's oldest toy' (Owen 2008; "Is This Britain's Oldest Toy?" 2008). However, neither the concept of a toy or plaything nor that of an art object allows us to appreciate the potential emotional significance of transitional objects to both infants and their care-givers. This small object may have been far more significant than simply something with which to engage in pretend play and, more than art, may instead have been intended as a transitional object which would provide the infant with feelings of comfort and security. This newborn would have been too young to reach the developmental stage of learning to rely on transitional objects; however, its inclusion seems to reflect an acknowledgement of the significant role these objects play. In the same way that the Rogers bear brought comfort to both Aileen



Figure 3. The Stonehenge pig 'toy'. Length 55mm. (Adam Stanford © Aerial-Cam Ltd, SRP 2008.)

and her father in different ways and at different times, this figurine would have been expected to provide comfort and security to a number of people, in slightly different ways; to a child in life, acting as both a plaything and a transitional object, and to their kin after death, in the knowledge perhaps that the child was protected by the figurine.

Worn or crudely made figurines and other objects are sometimes found in children's burials throughout prehistory, with one such example being the crude horse figurine found with the child burials (a boy [Sunghir 2] and a girl [Sunghir 3], about 12–13 and 9–10 years old) at Sunghir, dated to 29–31,000 years ago (Formicola and Buzhilova 2004; Otte 2017). These objects are often seen as enigmatic, but however become explicable when we understand the significance of transitional objects to child emotional wellbeing. In a modern ethnographic context Langley (2017) notes the presence of crude dolls and figurines, often made of perishable materials, in many hunter-gatherer societies, such as the Inuit. It isn't difficult to understand why highly emotionally significant transitional objects would be included in infant and children's graves at death no matter how crudely made or worn.

An attachment perspective therefore gives us an appreciation of how certain artefacts in the archaeological record become emotionally significant to children and adults. Material culture relating to children receives very little academic attention and as a result is often ignored (Shea 2006; Langley 2017), but children are the members of society most likely to have attachment objects, so an attachment perspective of material culture may be of great benefit to those wishing to study the relationship between children and material culture. Capacities for adult attachment to objects are formed during childhood, and our childhood attachment allows us to understand and

empathise with children's dependence on such objects (as potentially seen here with the Stonehenge pig 'toy'). Our childhood attachment to objects also influences the ways in which we attach powerful meanings to objects throughout life.

Hohle Fels 'Venus'

What of adult attachment objects? A potential adult attachment object considered here is the Hohle Fels 'Venus' (Figure 4), discovered in 2008 in the Swabian Jura area of southwestern Germany. This figurine, carved from mammoth ivory, is both the oldest uncontested example of a so called 'Venus' figurine known to date and one of the most recently discovered.

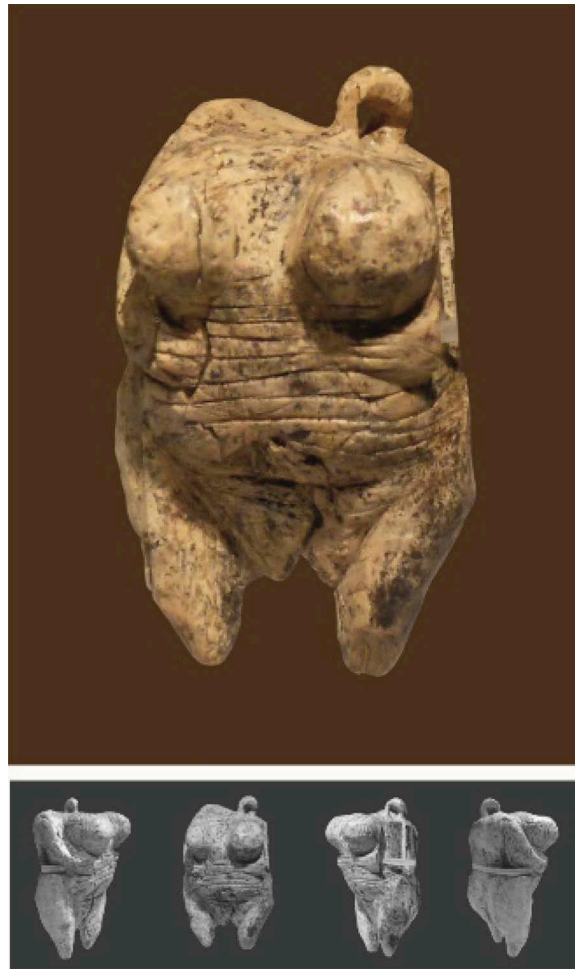


Figure 4. The Hohle Fels 'Venus' (Height 6 cm).

Source: https://commons.wikimedia.org/wiki/File:Venus_vom_Hohlen_Fels_Original.jpg

Small enough to fit in the palm of the hand, the Hohle Fels figurine was found to be at least 35,000 years old, making it one of the oldest known examples of figurative art (Conard 2009; Cook 2013). The left arm and shoulder are missing, but it is strikingly well preserved (Conard 2009). While its short, squat form makes it seem similar to many other Venus figurines, the Hohle Fels figurine has a number of unique features. Most interestingly, instead of a head, on top of the figurine there sits a suspension loop which shows signs of polish, suggesting it was worn as part of a pendant (Conard 2009).

Nicholas Conard, leader of the team who discovered the figurine, has emphasised the figurine's deliberate exaggeration of sexual features, and has argued that it may have been an expression of fertility (Conard 2009). The discovery of the figurine made headlines around the world, depicted by the press as 'prehistoric pornography' (Cook 2013; Curry 2012).

There are, however, other perspectives. In reference to similar ivory sculptures of female figures, found at Nebrä in Germany, Jill Cook (2013, 238) of the British Museum notes that 'given the skill and time required to produce the figure it seems an unlikely example of adolescent sexual awakenings and the deposition in the pit suggests some wider social, ritual or ceremonial significance'. The same can be said of the 'Venus' of Hohle Fels. The intricacy and time spent creating and curating these objects gives weight to the idea that they may have had emotional significance, and encouraged emotional attachments. Moreover 'Venus' figurines tend to depict mature women, rather than young adults or adolescents, consistent with being caring figures, rather than erotica (Dixson and Dixson 2012).

Might the Hohle Fels 'Venus' have been an attachment object? Certainly its size, degree of handling and uniqueness suggest that it had a personal, rather than a shared, significance. Whatever its original 'meaning' in spiritual, cultural or symbolic terms it might also have become an attachment object. Rather than representing prehistoric erotica or a fertility symbol, this object may even have been a visual reminder of someone else, providing comfort and security for the wearer. Indeed, the polish on the suspension loop suggests that this object was worn often and whatever the acknowledged reason for keeping this object close, such close proximity may also relate to the emotional support it provided. Other figurines found in Upper Palaeolithic contexts, where ecological conditions impose high levels of mobility and logistical organisation on hunter-gatherer groups, such as portable art featuring animal figurines (Spikins et al., [Forthcoming](#)), may also equally have functioned as attachment objects.

Discussion

The Rogers bear, the Stonehenge pig 'toy' and the Hohle Fels 'Venus' display many of the characteristics common to attachment objects. Their supportive emotional effect is often drawn out through touch and proximity, and such

objects have typically been much curated, as well as tending to be handheld and easily portable. As a result of such handling their original form may be lost, with any features such as eyes or facial expression no longer important, and the human or animal form they represent hardly recognisable. They are also highly individual, with an effect which tends to be specific to one person. They are quite literally 'one of a kind'.

Objects which become significant as attachment figures are of course different in different cultures, reflecting as they do both cultural patterns and the plasticity of object attachment. There are cultural regularities to what is deemed appropriate as a transitional object for children for example (such as teddy bears in modern industrialised contexts). However, our attachment system is sufficiently versatile that we can become attached to almost any object. In prehistoric contexts we might expect to see cultural trends as well as individual variability.

Whenever we encounter unique, small, cherished and highly worn objects, we should consider their potential significance as attachment objects, and their powerful potential to provide emotional comfort and security. These objects may have been given as gifts, and are often reflections of significant social relationships, which become imbued in the objects themselves. In some cases they may be objects that archaeologists have struggled to interpret as they do not fit known interpretations related to status, economics, ethnicity or symbolism. They may be broken, tattered and unimpressive to our eyes, but to someone they will have been a major source of comfort and security.

Conclusions

Our archaeological understanding of how material culture has a positive effect on emotional wellbeing is as yet in its infancy. An attachment perspective on cherished objects has the potential to provide a significant insight for interpretations of certain personal objects which may appear unimpressive to our eyes but yet held fundamental emotional significance to their users. Much like care-givers and loved ones, such attachment objects literally calm our fears, comfort our anxieties and give us the confidence to fully engage in a complex social world. Appreciating the emotional attachments which people make with these cherished objects allows us to appreciate the complexity of past feelings, and gives us a fuller sense of how our shared emotional experiences play out within different cultural contexts.

We argue that from the Rogers bear, to the Stonehenge pig 'toy', to the Hohle Fels 'Venus', an understanding of attachment objects brings a new perspective to our archaeological understanding of the relationship between material things and some of our most human and intimate feelings.

Notes

1. Artefact number 20040015-001 in the Canadian War Museum. For online catalogue with further details see <http://www.warmuseum.ca/collections/artifact/1368588/>.
2. The survey of 223 adults was carried out as part of an interdisciplinary study at the University of York, funded by the Archaeology Research Priming Fund. The research was carried out between May and November 2017 (Penny Spikins, Barry Wright and Dorothea Debus, with Taryn Bell as research assistant). Applicants were asked to describe and discuss an object which was important to them, and to fill out a survey measuring their attachment score.

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Taryn Bell completed her M.Sc. in Early Prehistory at the University of York in 2016, with a dissertation focusing on attachment theory and its archaeological applications. Taryn worked as a research assistant on the Meaningful Objects survey (Comforting Things Project) and is currently a research assistant on the John Templeton Foundation 'Hidden Depths' project. In this project she specialises in the engagement of adolescents and young adults with emotionally helpful narratives of prehistoric artefacts.

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References

- "Is This Britain's Oldest Toy?" 2008. *Current Archaeology*. December 5, 2008. Accessed November 24, 2017. <https://www.archaeology.co.uk/articles/features/is-this-britains-oldest-toy.htm>.
- Allen, K. M., J. Blascovich, J. Tomaka, and R. M. Kelsey. 1991. "Presence of Human Friends and Pet Dogs as Moderators of Autonomic Responses to Stress in Women." *Journal of Personality and Social Psychology* 61 (4): 582–589.
- Arnould, E. J., L. L. Price, and C. F. Curasi. 1999. "Cherished Possessions." *Anthropology News* 40 (2): 17–18.
- Barker, S. B., J. S. Knisely, N. L. McCain, C. M. Schubert, and A. K. Pandurangi. 2010. "Exploratory Study of Stress-Buffering Response Patterns from Interaction with a Therapy Dog." *Anthrozoös* 23 (1): 79–91.
- Barrett, J. C. 2001. "Agency, the Duality of Structure, and the Problem of the Archaeological Record." In *Archaeological Theory Today*, edited by I. Hodder, 141–164. Cambridge: Cambridge University Press.
- Beck, L., and E. A. Madresh. 2008. "Romantic Partners and Four-Legged Friends: An Extension of Attachment Theory to Relationships with Pets." *Anthrozoös* 21 (1): 43–56.
- Bowlby, J. 1969. *Attachment and Loss: Attachment*. V. New York: Basic Books.
- Bowlby, J. 1988. *A Secure Base: Clinical Applications of Attachment Theory*. London: Routledge.
- Carnelley, K. B., and A. C. Rowe. 2010. "Priming a Sense of Security: What Goes through People's Minds?" *Journal of Social and Personal Relationships* 27 (2): 253–261.
- Coan, J. A. 2008. "Toward a Neuroscience of Attachment." In *Handbook of Attachment: Theory, Research, and Clinical Applications*, edited by J. Cassidy and P. R. Shaver, 241–265. 2nd ed. New York: Guilford Press.
- Conard, N. J. 2009. "A Female Figurine from the Basal Aurignacian of Hohle Fels Cave in Southwestern Germany." *Nature* 459 (7244): 248–252.
- Cook, J. 2013. *Ice Age Art: The Arrival of the Modern Mind*. London: British Museum Press.
- Creese, J. L. 2016. "Emotion Work and the Archaeology of Consensus: The Northern Iroquoian Case." *World Archaeology* 48 (1): 14–34.
- Curry, A. 2012. "The Cave Art Debate." *Smithsonian.com*. March 2012. Accessed October 6, 2017. <https://www.smithsonianmag.com/history/the-cave-art-debate-100617099/>.
- Depue, R. A., and J. V. Morrone-Strupinsky. 2005. "A Neurobehavioral Model of Affiliative Bonding: Implications for Conceptualizing a Human Trait of Affiliation." *The Behavioral and Brain Sciences* 28 (3): 313–350.
- Diesendruck, G., and R. Perez. 2015. "Toys Are Me: Children's Extension of Self to Objects." *Cognition* 134: 11–20.
- Dixon, A. F., and B. J. Dixon. 2012. "Venus Figurines of the European Paleolithic: Symbols of Fertility or Attractiveness?" *Journal of Anthropology* 2011, ID569120.
- Feeney, B. C., and M. Van Vleet. 2010. "Growing through Attachment: The Interplay of Attachment and Exploration in Adulthood." *Journal of Social and Personal Relationships* 27 (2): 226–234.

- Fleisher, J., and N. Norman. 2015. *The Archaeology of Anxiety: The Materiality of Anxiousness, Worry, and Fear*. New York: Springer-Verlag.
- Formicola, V., and A. P. Buzhilova. 2004. "Double Child Burial from Sunghir (Russia): Pathology and Inferences for Upper Paleolithic Funerary Practices." *American Journal of Physical Anthropology* 124 (3): 189–198.
- Foxhall, L. 2012. "Material Values: Emotion and Materiality in Ancient Greece." In *The Role of Emotions in Classical Antiquity*, edited by A. Chaniotis and P. Ducrey. Stuttgart: Steiner Verlag.
- Fraley, R. C., N. W. Hudson, M. E. Heffernan, and N. Segal. 2015. "Are Adult Attachment Styles Categorical or Dimensional? A Taxometric Analysis of General and Relationship-Specific Attachment Orientations." *Journal of Personality and Social Psychology* 109 (2): 354–368.
- Friedmann, E. 1995. "The Role of Pets in Enhancing Human Well-Being: Physiological Effects." *The Waltham Book of Human-Animal Interaction: Benefits and Responsibilities of Pet Ownership*, edited by I. Robinson, 33–53. Oxford: Pergamon.
- Gillath, O., G. C. Karantzas, and R. C. Fraley. 2016. *Adult Attachment: A Concise Introduction to Theory and Research*. Cambridge, MA: Academic Press.
- Gillath, O., P. R. Shaver, and M. Mikulincer. 2005. "An Attachment-Theoretical Approach to Compassion and Altruism." In *Compassion: Conceptualisations, Research and Use in Psychotherapy*, edited by P. Gilbert, 121–147. New York: Routledge.
- Gjersoe, N. L., E. L. Hall, and B. Hood. 2015. "Children Attribute Mental Lives to Toys When They Are Emotionally Attached to Them." *Cognitive Development* 34: 28–38.
- Gorman, A., and L. Wallis. 2017. *Loveable: The Stories Behind Thriftshop Objects*. Brighton, SA: Wallis Heritage Consulting.
- Grguric, N. K. 2008. "Fortified Homesteads: The Architecture of Fear in Frontier South Australia and the Northern Territory, Ca. 1847–1885." *Journal of Conflict Archaeology* 4 (1–2): 59–85.
- Groh, A. M., R. M. Pasco Fearon, M. H. van IJzendoorn, M. J. Bakermans-Kranenburg, and G. I. Roisman. 2017. "Attachment in the Early Life Course: Meta-Analytic Evidence for Its Role in Socioemotional Development." *Child Development Perspectives* 11 (1): 70–76.
- Hamilakis, Y. 2017. "Sensorial Assemblages: Affect, Memory and Temporality in Assemblage Thinking." *Cambridge Archaeological Journal* 27 (1): 169–182.
- Hamilakis, Y. 2010. "Re-collecting the Fragments: Archaeology as Mnemonic Practice." In *Material Mnemonics: Everyday Memory in Prehistoric Europe*, edited by K. T. Lillios, and V. Tsamis, 188–199. Oxford: Oxbow.
- Harris, O. J. T. 2006. "Identity, Emotion and Memory in Neolithic Dorset." PhD diss., University of Cardiff.
- Harris, O. J. T., and T. M. Sørensen. 2010. "Rethinking Emotion and Material Culture." *Archaeological Dialogues* 17 (2): 145–163.
- Hewlett, B. S., M. E. Lamb, and B. Leyendecker. 2000. "Internal Working Models, Trust, and Sharing among Foragers." *Current Anthropology* 41 (2): 287–297.
- Hodder, I. 2012. *Entangled: An Archaeology of the Relationships between Humans and Things*. Malden: Wiley-Blackwell.
- Jakubiak, B. K., and B. C. Feeney. 2016. "Keep in Touch: The Effects of Imagined Touch Support on Stress and Exploration." *Journal of Experimental Social Psychology* 65: 59–67.
- Keefer, L. A., M. J. Landau, and D. Sullivan. 2014. "Non-human Support: Broadening the Scope of Attachment Theory." *Social and Personality Psychology Compass* 8 (9): 524–535.
- Keefer, L. A., M. J. Landau, Z. K. Rothschild, and D. Sullivan. 2012. "Attachment to Objects as Compensation for Close Others' Perceived Unreliability." *Journal of Experimental Social Psychology* 48 (4): 912–917.

- Langley, M. C. 2017. "Magdalenian Children: Projectile Points, Portable Art and Playthings." *Oxford Journal of Archaeology* 37 (1): 1–22.
- Malafouris, L. 2015. "Metaplasticity and the Primacy of Material Engagement." *Time and Mind* 8 (4): 351–371.
- Mauss, M. 1967. *The Gift*. Translated by I. Cunnison. London: Cohen & West.
- McCartney, M. 2006. "Finding Fear in the Iron Age of Southern France." *Journal of Conflict Archaeology* 2 (1): 99–118.
- Mikulincer, M., O. Gillath, V. Halevy, N. Avihou, S. Avidan, and N. Eshkoli. 2001. "Attachment Theory and Reactions to Others' Needs: Evidence That Activation of the Sense of Attachment Security Promotes Empathic Responses." *Journal of Personality and Social Psychology* 81 (6): 1205–1224.
- Mikulincer, M., and P. R. Shaver. 2007. "Boosting Attachment Security to Promote Mental Health, Prosocial Values, and Inter-Group Tolerance." *Psychological Inquiry* 18 (3): 139–156.
- Mikulincer, M., and P. R. Shaver. 2010. *Attachment in Adulthood: Structure, Dynamics, and Change*. New York: Guilford Press.
- Mikulincer, M., P. R. Shaver, and E. Rom. 2011. "The Effects of Implicit and Explicit Security Priming on Creative Problem Solving." *Cognition & Emotion* 25 (3): 519–531.
- Mikulincer, M., P. R. Shaver, O. Gillath, and R. A. Nitzberg. 2005. "Attachment, Caregiving, and Altruism: Boosting Attachment Security Increases Compassion and Helping." *Journal of Personality and Social Psychology* 89 (5): 817–839.
- Mikulincer, M., and P. R. Shaver. 2012. "Attachment Theory." In *Handbook of Theories of Social Psychology*, edited by P. Van Lange, A. Kruglanski, and E. Higgins, 160–179. London: Sage.
- Nedelisky, A., and M. Steele. 2009. "Attachment to People and to Objects in Obsessive-Compulsive Disorder: An Exploratory Comparison of Hoarders and Non-Hoarders." *Attachment & Human Development* 11 (4): 365–383.
- Olsen, B. 2010. In *Defense of Things: Archaeology and the Ontology of Objects*. Lanham: Rowman Altamira.
- Otte, M. 2017. "La Civilisation Du Sungirien." In *The Sungirian and Streletskian in the Context of the Eastern European Early Upper Paleolithic. Act of the Conference of the UISPP Commission 8 in Saint-Petersbourg*, edited by S. Vasilyev, A. Sinitsyn, and M. Otte, 7–19. Liège: Etudes et Recherches Archéologiques de l'Université de Liège.
- Owen, J. 2008. "Britain's Oldest Toy Found Buried with Stonehenge Baby?" *National Geographic*. October 21, 2008. Accessed November 24, 2017. <https://news.nationalgeographic.com/news/2008/10/081021-stonehenge-toy.html>.
- Robb, J. 2017. "'Art' in Archaeology and Anthropology: An Overview of the Concept." *Cambridge Archaeological Journal* 27 (4): 587–597.
- Shaver, P. R., M. Mikulincer, and M. Shemesh-Iron. 2010. "A Behavioral Systems Perspective on Prosocial Behavior." In *Prosocial Motives, Emotions, and Behavior: The Better Angels of Our Nature*, edited by M. Mikulincer and P. R. Shaver, 73–92. Washington, DC: American Psychological Association.
- Shea, J. J. 2006. "Child's Play: Reflections on the Invisibility of Children in the Paleolithic Record." *Evolutionary Anthropology* 15 (6): 212–216.
- Spikins, P. 2015. *How Compassion Made Us Human: The Evolutionary Origins of Tenderness, Trust and Morality*. Barnsley: Pen and Sword.
- Spikins, P., G. Hitchens, A. Needham, and H. Rutherford. 2014. "The Cradle of Thought: Growth, Learning, Play and Attachment in Neanderthal Children." *Oxford Journal of Archaeology* 33 (2): 111–134.
- Spikins, P. *Forthcoming*. "Sharing and Inclusion: A Socio-Emotional Model of Generosity, Trust and Response to Vulnerability in the Distant Past." In *Sharing: The Archaeology and*

- Anthropology of Hunter-Gatherers*, edited by N. Levi and D. Friesem. Cambridge: MacDonald Institute Monographs.
- Spikins, P. 2017. "Prehistoric Origins: The Compassion of Far Distant Strangers." In *Compassion: Concepts, Research and Applications*, edited by P. Gilbert, 16–30. Oxford: Taylor and Francis.
- Spikins, P., T. Bell, B. Wright, and D. Debus. [Forthcoming](#). "Attachment Objects? The Significance of Attachment Plasticity to Interpretations of Much Worn Portable 'art' from the Upper Palaeolithic."
- Sumioka, H., A. Nakae, R. Kanai, and H. Ishiguro. 2013. "Huggable Communication Medium Decreases Cortisol Levels." *Scientific Reports* 3: 3034.
- Takahashi, H., M. Ban, H. Osawa, J. Nakanishi, H. Sumioka, and H. Ishiguro. 2017. "Huggable Communication Medium Maintains Level of Trust during Conversation Game." *Frontiers in Psychology* 8: 1862.
- Tarrow, S. 2012. "The Archaeology of Emotion and Affect." *Annual Review of Anthropology* 41 (1): 169–185.
- Waters, H.S., and E. Waters. 2006. "The Attachment Working Models Concept: Among Other Things, We Build Script-like Representations of Secure Base Experiences." *Attachment & Human Development* 8 (3): 185–197.
- White, R. 2007. "Systems of Personal Ornamentation in the Early Upper Palaeolithic: Methodological Challenges and New Observations." In *Rethinking the Human Revolution: New Behavioural and Biological Perspectives on the Origin and Dispersal of Modern Humans*, edited by P. Mellars, K. Boyle, O. Bar-Yosef, and C. Stringer, 287–302. Cambridge: McDonald Institute for Archaeological Research.
- Winnicott, D. W. 1953. "Transitional Objects and Transitional Phenomena: A Study of the First Not-Me Possession." *The International Journal of Psycho-Analysis* 34 (2): 89–97.
- Wu, C., and C. Yang. 2012. "Attachment and Exploration in Adulthood: The Mediating Effect of Social Support." *International Journal of Psychology: Journal International de Psychologie* 47 (5): 346–354.
- Zilcha-Mano, S., M. Mikulincer, and P. R. Shaver. 2012. "Pets as Safe Havens and Secure Bases: The Moderating Role of Pet Attachment Orientations." *Journal of Research in Personality* 46 (5): 571–580.