# The Archaeology of Emotion and Affect

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#### **Abstract**

The literature on the archaeology of emotion and affect is mostly quite recent and is not extensive. This review considers the main lines of approach taken so far and explores how different understandings of what constitutes an emotion underlie the work of archaeologists in this area. A distinction is made between past emotion as a subject of study and examination of the emotional subjectivity of the archaeologist as a method. The potential contribution of archaeology to emotion studies in the future includes bringing a sense of contextual historicity to the discussion and developing our knowledge of how material things and places are involved in shaping and expressing emotion. Inspired by some historians of emotion, a focus on shared emotional meanings, values, and codes seems a more productive direction than the exploration of idiosyncratic personal emotional experience.

### INTRODUCTION: ON THE NAMING OF PARTS

The emotional turn is a profound and challenging development in recent intellectual history, not least because it is manifest across both scientific and humanities disciplines—although the nature of the emotional question and what might be considered a satisfactory answer vary considerably according to disciplinary styles. Archaeology is interestingly positioned in this regard, partaking as it does of many other disciplines for which emotion has been a major focus of study in recent decades. Perhaps surprisingly, however, only a handful of developed archaeological studies of emotion have been published, in addition to a few theoretical discussions. This review refers to developments in emotion studies in cognate areas, examines

#### **DEFINITION OF TERMS**

Basic or key emotions: emotions that are biological in origin, shared across culture, and recognizable by universally shared facial expressions. Lists of between 6 and 11 basic emotions have been published by psychologists of emotion, predominantly Paul Ekman and Robert Plutchik. See Ortony & Turner 1990 for a review

Constructivism: in emotion studies, the belief that emotions are culturally constructed and constituted and that even the bodily perturbations associated with emotion are experienced in culturally determined ways

Disenchantment: a fundamental process of the modern world, according to Max Weber, by which magic and mystery were supplanted by rational and intellectual knowledge of the world. At the same time, knowledge came to be located inside individual minds rather than in a numinous natural world

Emotionology: the particular emotional codes and values characteristic of a historically located society (after Stearns & Stearns 1985)

Ladder of inference: the varying levels of difficulty with which archaeologists can know about aspects of past life, posited by Hawkes (1954), with aspects such as technology and subsistence on the lower levels and belief and feeling at the top. Subsequent archaeological theorists have rejected this model on the grounds that material remains are the product of all these things

the main lines of approach in archaeology, and concludes with some predictions—or perhaps suggestions—for future work.

Nearly all the disagreements, controversy, and ambiguity in studying emotion could be cleared up if there were significant consensus on what an emotion is. Most people can agree that happiness and anger are emotions, but what about hope? Depression? Ennui? The distinction between an emotion, a state of mind, a mood, a personality type, or even a pathology is difficult to draw. Even in the case of an uncontentious emotion such as happiness, do we mean the intense moments of visceral euphoria, or can we use it to characterize a long-term state such as a marriage, a career, or a community? Differences in how we use and intend emotion language lie at the root of many failed communications between emotion scholars, although such ambiguity arguably also functions to open up a wider range of possible questions and to resist fixing conclusions.

#### EMOTION AMONG THE SCHOLARS

Approaches to emotion study are numerous and differ from each other in subtle ways. However, many approaches can be broadly arranged along a spectrum, the poles of which I call psychological and constructivist, although these terms do not map directly onto the self-identification of the scholars involved. At the psychological end of the spectrum are those approaches that understand emotion as a bodily agitation. Emotion is located in the brain and in the actions of hormones and is thus broadly shared by all anatomically modern humans as a biological function. According to this way of thinking, therefore, some emotions are far from being the exclusive property of humans. Dogs, elephants, rats, and even fish and bees have emotions. At the constructivist pole, emotions are not considered to be universal among humans. Not only does the emotional content of a situation change according to cultural context, but the actual emotional experience is learned and social. Such approaches are often closely linked

to linguistic studies of emotion language and point to the deployment of emotional terms in ways that are not translatable across and between cultures. Broadly, these two approaches align more closely with either a biological and universal view or a cultural and contextual one. However, it is difficult to place the work of any individual at the far ends of the spectrum. The majority of writers on emotion recognize to some degree that emotions are both biological and cultural. The difference tends to be in what they see as more interesting and in need of exploration, and the potential problem is in continuing to think about emotion in polarized and binary terms despite acknowledging the limitations of doing so.

Psychological approaches are interested in the neurological and chemical bases of emotion, understood as a physical agitation. They see emotions as fundamental parts of biologically determined human experience and thus mostly shared cross-culturally. The psychological school of emotion studies does allow a role for culture, but this view often relates more to "how emotions are manifest, their consequences and value in the world" (Panksepp 2004, p. 16). The feeling part comes from the brain. This is the paradigm of emotions that lies behind Ekman's well-known identification of basic emotions with corresponding facial expressions, which are, he claims, recognized cross-culturally (Izard 1971, 1977, 1991, 1992; Ekman & Friesen 1972; Ekman 1980a,b, 1984, 1993, 1994).

Some further division into primitive or basic and social is possible in such an approach, but it is not uncontentious. Wierzbicka (2010, p. 269) notes that the history, and by extension the archaeology, of emotion has great power to critique a biologically based science of emotion because its findings would be less easily dismissed as marginal or exceptional than those of ethnographies of emotion. Wierzbicka's emotional history problematizes the supposedly basic nature of happiness. For example, Herodotus describes happiness as the property of a whole great life, something more complex and subtle than what is encoded in one of Ekman's

smiling faces (e.g., Ekman 1980a,b). Whether Wierzbicka's (2010, pp. 269–70) proposal of using a culturally neutral minilanguage of "conceptual primes" is any less impoverishing is not clearly established.

There is no doubt, however, that psychological assumptions about the supposed universality of emotion have had a far greater impact on popular ideas than have anthropological ones, and they even inform public policy. At the time of writing, at least 161 US airports use the SPOT (Screening of Passengers by Observation Techniques) program of human and technical observation of faces and behaviors to identify microvariations in facial expression that reveal (supposedly universal) emotions and, thus, presumably detect individuals who threaten air security (Gov. Account. Off. 2010; see discussion in Menasco et al. 2008). Public policy is more readily influenced by an approach to emotion that assumes universality of emotion. So too is popular culture. Emotionally universal pasts underpin the success of costume dramas, historical fiction, and even television documentaries, which use emotions of love, grief, anger, and fear as bridges between modern audiences and past people and where the message of essential continuity is prioritized. Emotional pasts are powerfully attractive but risk presenting modern and Euro-American sensibilities as universal, which has negative political implications.

#### CONSTRUCTIVIST APPROACHES

A more anthropological approach to emotion studies gives greater weight to the role of culture in shaping not only the way that emotions are expressed, but also the very nature of emotional experience. The social/cultural anthropological literature (reviewed by Lutz & White 1986, Mesquita & Walker 2003, Milton & Svašek 2005) generally takes a more social constructivist line (Harré 1986), based on extensive ethnographic observation. Constructivist approaches are not limited to anthropologists [see, for example, Averill (1980) on constructivism in psychology; and

the influence of constructivist thinking in cultural geographies of emotion: Davidson et al. (2005), Lorimer (2005, 2008), Simonsen (2007), Smith et al. (2009); and also in sociology: Turner & Stets (2005), Stets & Turner (2007)], but the characterization of approaches that give explanatory force to culture are often broadly described as "anthropological."

### THE POSSIBILITY OF AN ARCHAEOLOGY OF EMOTION

Emotion is still popularly associated with irrationality. I hope to show in this review, however, that the archaeology of emotion is a sophisticated, analytical, and disciplined academic field, which properly takes emotion to be the subject, rather than the method, of study. Until about 20 years ago, experiential aspects of the human past were considered to be mostly beyond the reach of archaeological investigation, especially in the case of nonliterate societies. Attempting to climb to the top of Hawkes's (1954) ladder of inference, the epistemological progression of archaeology from discovering easy things such as subsistence and technology to very difficult things such as belief and emotion was not just difficult: It was foolhardy and asking for a fall.

#### ORIGINS OF THE ARCHAEOLOGY OF EMOTION

In the 1980s and 1990s, a number of linked developments in archaeological theory encouraged archaeologists to think that experience, emotion, and meaning might be worth looking for in the archaeological past. Listed here are a few of those developments.

1. The influence of postmodern thought on archaeological epistemology—especially in the form of postprocessual archaeology—denied claims to absolute truth and made it possible to think in terms of interpretation rather than proof (e.g., Hodder 1991a,b,c). So long as we could construct a plausible argument around the evidence, we did not have to be sure that we were right (Shanks

- & Tilley 1987, 1992; Johnson 1999, pp. 98–115).
- 2. Related to the first finding, the linguistic turn in archaeological theory blurred the line between language and material forms of evidence: Both were produced in particular circumstances in order to accomplish particular ends; both required contextual interpretation to be meaningful. If material culture was analogous to text, its careful "reading" should be capable of producing similarly subtle, complex, and polyvalent meanings (Hodder 1982, 1989; Tilley 1991).
- 3. Feminist and Marxist archaeologies argued that it was impossible to understand past societies without considering the significance of gender and power (e.g., Gero & Conkey 1991, 1997; Leone 1995, 2010). These kinds of social dynamics do not fossilize, but imaginative interpretation can expose them to archaeological analysis. By extension, other intangible aspects of the human past also became reasonable objects of our archaeologies.

Among the first to emerge from this broadly postprocessual school advocating the importance of an archaeology of emotion were Tarlow (1998, 1999a,b, 2000a,b) and Meskell (1994, 1999, 2002). Like the phenomenological school of archaeological theory, particularly influential in British prehistory through the 1990s and 2000s, these scholars argued that the elucidation of human experience was a legitimate and important contribution that archaeology might make. For them, human experience was conceived as massively variable, socially constructed, and therefore requiring local and contextual explanation.

The literature on the archaeology of emotion and affect is still a small one. Several important studies have not been published, although the publication of Fleisher & Norman's edited volume *The Archaeology of Fear, Anxiety and Ritual* will be a significant addition to the corpus. I am grateful therefore to all those scholars who have made unpublished papers available to me.

Since the first extended cases were made for incorporating a consideration of emotion into archaeological work (Cowgill 1993; Tarlow 1997, 1998, 1999a,b, 2000a,b; Meskell 1994, 1999), several archaeologists in both prehistoric and historical specialisms have also called for greater awareness of the effect of emotion in giving force and meaning to human experience in the past (e.g., Gosden 2004, Harris & Sørensen 2010). There remains considerable variation in views on how this project is to be undertaken, however, much of the disagreement centering on the question of whether we can, should, or need to assume particular emotions existed in the past in a form analogous to those emotions we know in the present. Whereas those investigators on the constructionist wing caution against any kind of retrojection of emotional experience (e.g., Fowler 2000, Hamilakis 2002, Thomas 2002), others have found it debilitating to be unable to assume any continuity at all (e.g., Kus 2000). Programmatic statements about traps to be avoided have not always helped, and here I have been guilty myself of failing to "seduce, cajole and humor" colleagues into risking attempts at understanding emotion in the past (Kus 2000 on Tarlow 2000a).

### PREHISTORIC AND HISTORICAL ARCHAEOLOGIES OF EMOTION

Approaches that invoke universal rather than contextually specific emotion appear to be more prevalent the more remote the time period under consideration. Palaeolithic archaeologists who have ventured into the study of emotion almost always refer to a universal psychoneurological kind of emotion (e.g., Mithen 1991, 2005; Spikins et al. 2010; Hovers & Belfer Cohen 2012).

Hovers & Belfer Cohen (2012), for example, reference the psychological tradition, perhaps because of the close relationship between palaeolithic archaeology and evolutionary psychology. Gonciar (2009) argues that the search for shared "social emotional values" as advocated by Tarlow (2000a) and some historians of

emotion such as Stearns (Stearns & Stearns 1985, 1986; Stearns 1989, 1993; Stearns & Knapp 1996) and Rosenwein (2002, 2010; see also Plamper 2010) is more suitable for the study of historical periods, where one can consider language and a deeper knowledge of cultural context is possible (Meskell 1999 makes a similar point). In prehistoric archaeology, he goes on (Gonciar 2009, p. 13), we can seek out instances of personal emotional experience without needing to guess at the specific emotional meaning content. Idiosyncratic emotional motivations are evident when the normalizing structures that usually regulate emotional expression break down and result in something anomalous in the archaeological record. In the case study developed by Gonciar (2009, pp. 17–32), the normative ritual mortuary practices of a community in late Bronze Age Transylvania demonstrate conditioned expressions of emotion; deviation from such practice, such as in the case of an anomalous burial, results from an occasion when personal and affective factors trumped normative ritual. Nilsson Stutz (2003) also sees ritual as a key locus for the expression of emotion and conversely argues, in her study of mesolithic mortuary practice, that emotion gives ritual action meaning, force, and memorability (see Williams 2007 for a comparable study in an early medieval context). Harris (2009, 2010, 2011, 2012, 2013; Harris & Sørensen 2010), starting from the position that emotions are culturally constructed and enormously variable and that the remote past is unfamiliar, does not attempt to identify or describe "specific emotional valances" (Harris 2013). Harris's approach is influenced both by emotional geographies of place, such as the work of Nigel Thrift, and by the phenomenological school of British prehistorians (e.g., Tilley 1994, 2004; Thomas 1996, 2002; Cummings 2002; see Brück (2005) for a critical review of this tradition) who emphasize the importance of understanding human experience of place and landscape in the past, but adds to their approach a recognition of the central importance of memory and emotion to knowing and experiencing places. Following Ahmed (2004), Harris argues that places (and things) can become "sticky" with emotions (2010, 2013) and therefore that things and places can be deliberately elaborated in order to "fix" memories (Harris 2009, 2010). Thus, for example, Harris considers the way that unusual deposits at the English Neolithic site of Hambledon Hill mark ritual occasions that elaborated meaningful locations in the landscape in order to create emotional experience and thus to make memorable, sometimes over multiple generations, certain events and relationships.

In his focus on what Williams (2007) calls "emotional force" to galvanize ritual occasions or practices, Harris shares a position with Hayden (2009), who also prefers to ignore the specificity of funerary emotions, pointing out that any heightened emotional context gives additional power to social strategies of, for example, competitive display. Foxhall (2012) is also interested in the ways that places—or, for her, things—become emotional freighted. For Foxhall, "objects can become charged with emotion in their own right, as well as being manifestations of emotionally significant relationships" (2012). She considers the case of loom weights in the ancient Greek world. A common and apparently mundane artifact category, the ubiquitous loom weight is not the obvious place to look for evidence of feeling. However, Foxhall's study shows that loom weights were feminine artifacts that belonged to and traveled with women and were inherited down the female line. In a patrilocal society, the loom weight was often a materialization of emotional ties to a woman's parental home, to her mother, and to her education in textile manufacture. As the objects become older, they thus increase in emotional value, linking their owner to memories and family ties.

### ARCHAEOLOGIES OF PARTICULAR EMOTIONS

In contrast to those who eschew examination of particular emotional states in favor of showing how a more loosely specified emotional power shaped particular moments, places, and relationships, some archaeologists have engaged more closely with a particular emotion, notably grief or fear. The mortuary context has proved particularly interesting to archaeologists of emotion, perhaps because "emotion-free" archaeologies of death seem especially partial. [Anthropology of death, which fails to consider its emotional context, has been examined by Rosaldo (1993) in an important and influential critique.] Similarly, mortuary archaeologists have frequently assumed the existence of past emotions without any critical consideration of their probable nature. Emotions of grief and other responses to bereavement have been considered by several commentators (e.g., Meskell 1994, MacDonald 2001), but the insights of cultural anthropologists such as Rosaldo (1993) have also encouraged archaeologists to explore the possibilities of other emotional responses to death, including anger, fear, and anxiety. For others, such as Williams (2007) and Nyberg (2010), the body itself is used to mediate powerful emotions through its arrangement into particular positions and the use of material culture and other technologies of disposal. For these scholars, the creation of an emotional memory is central to an understanding of the mortuary context, and grief is explicitly or implicitly a central emotion, although as Appleby (2010) notes "rich grave assemblages may be related to status, but do not necessarily indicate love, care or compassion for the deceased" (pp. 153-54). Hill's (2012) explanation of the shift in late Moche burial practices from inhumation to bench burial within structures relies on a shift in the emotional relationship between the living and the dead using the human body to fix memories.

Recently, some imaginative and original studies have attempted to examine fear in the past. To a lesser or greater degree, all these assume the existence of fear as a basic emotion and are more concerned with its identification in particular contexts. Chesson (2013) starts with the particular context, arguing that the short life span, precarious supply of food, and high levels of poor health evidenced in the bones of 578 individuals interred at the

early Bronze 1A cemetery of Bab adh-Dhra in Jordan would have led to anxiety and fear about the future: We can imagine, she says, that most members of the adult population she studies would have been "hungry, tired, and anxious about feeding themselves and their families." Chesson sees in the elaborate and highly ritualized mortuary practices evident at the cemetery both an expression of anxiety and a strategy of "risk reduction."

McCartney (2006) takes an imaginative and interesting approach to fear, looking for a "climate of fear" in the past rather than attempting to identify the emotional states of individuals. She uses insights from sociology and anthropology to argue that societies living in unpredictable circumstances are those most likely to go to war and to feel fear of others; such societies are socialized for aggression and mistrust. This emotional climate may manifest spatially as the fragmentation of families into nuclear units where free movement of individuals between units is discouraged, as an increase in fortification and defensive architecture, and as reduced communal and communicative structures. Such features are evident at the later Iron Age oppidum of Entremont in southern France, which shows a clear distinction between an earlier phase of small living areas and limited communication and a later one with larger houses and more permeable plans. Although McCartney's work does not extensively problematize the nature of fear as an emotion, her work is important because it relates archaeological evidence to shared cultural emotional contexts. Fleming's (2000) examination of the ubiquity of locks and keys on the remote Scottish island of St. Kilda in the eighteenth and nineteenth centuries similarly marshals the archaeological evidence that suggests relationships of mistrust among the islanders, in contrast with the communal ideal attributed to them (with the connivance of the islanders) by outsiders. A more obvious architecture of fear is exemplified in the defensive architectural techniques used by civilian settlers in the Australian frontier. Grguric (2008) contends that gun holes and emplacements in farm structures

manifest a settler fear of aboriginal attack, even where the risk or frequency of actual attack is not easy to identify. Such fear narratives, however, have had a significant role in constructing Australian colonial histories in which the settler was the defendant under attack from Aboriginal aggressors, rather than the other way round.

#### WHERE IS FEAR?

The location of emotions such as fear is an interesting and historically (and culturally) variable thing. Drawing on Barfield's (1954) observation that words such as "merry" and "fear" in medieval English signified properties of the natural world, not of interior experience, Campbell (1987) suggests that "only in modern times have emotions come to be located 'within' individuals as opposed to 'in' the world" (p. 72). This important point alone should caution us against too wholesale an adoption of psychological approaches. Harris (2013) locates emotions neither in the individual nor in a thing or a place, but in the coincidence of (at least) two of those vectors. Flohr Sørensen & Lumsden (2013) explore this point more fully in their examinations of a Hittite landscape. For these scholars, fear is not (only) a product of the inner workings of the human mind; it is also attributable to actual factors of the external world, a world that can thus be understood as "enchanted" (sensu Weber 1946 [1917]). It is thus to the material elaboration of the emotional meanings of landscape that they look in their analysis, concluding that fear is articulated spatially through the making and placing of sculpture, including monumental works, and in the regulation and control of movement. Semple's (1998) study of the fearful properties of the Anglo-Saxon landscape similarly sees places, rather than people, as the location of fear and anxiety. Arising from her study of Old English sources, including Beowulf and a fragment called The Wife's Lament, Semple describes Anglo-Saxon fear of wild natural places and prehistoric monuments, especially burial mounds, as haunts of monsters and spirits. In this way, prehistoric places actually have emotional meanings in later archaeological periods and may be elaborated for other purposes accordingly [for example, the use of prehistoric burial mounds as sites of execution in the medieval period has been discussed by several authors including Roymans (1995) and Reynolds (2009)].

The emotions surrounding death and bereavement can be very intense. Although the precise nature of these emotions may vary, something approximating to what we call grief is certainly very widespread if not universal, although not always experienced by all concerned at every death. Nevertheless, the burial rite can be understood as a place where grief needs to be addressed, through expression or through a process that moves the bereaved into the next phase of life. This might be a kind of healing process as Härke (2001) suggests is part of the function of north European cemeteries in the early Middle Ages. He lists numerous parallel functions of cemeteries including disposal, remembrance, and ritual, giving shape to the encounter with mortality and mediating the ownership of property at a time of disruption. They also function as places of emotion, where feelings are given form in both ephemeral and material ways. Cemeteries are also perhaps venues for "emotional healing" (2001, p. 14). Similarly, Murphy (2011) considers the role of *cillini*, children's burial grounds in postmedieval Ireland. Murphy criticizes the well-known views of historians of childhood such as Ariès (1988 [1962]), which imply that in premodern times there was little emotional investment in babies and young children who were likely to die in times of high infant mortality. Instead she cites research on miscarriage, stillbirth, and perinatal loss to show that the majority of mothers who experience infant loss did and do suffer psychological grief (although the research she considers is not cross-cultural). However, in Ireland's recent history, "miscarriage, stillbirth, and infant death were generally not viewed as significant events by anyone apart from the mother" (2011, p. 425). Certainly the Catholic Church has not viewed the loss of unbaptized babies as a socially or religiously significant one, and traditionally they were not given burial in consecrated

community burial grounds. In response to this exclusion, cilliní were established outside the control of the Church. Often located among the ruins or remains of archaeological sites, especially early ecclesiastical sites, these places contain the remains of tiny babies, as well as others who were denied normative Church burial such as suicides, strangers, and drowned bodies washed ashore. Evidence indicates that the baby graves were marked and visited; stone settings often surround the little graves and lumps of white quartz sit on the ground. Cilliní are thus an example of an emotionally motivated resistance to hegemonic mortuary practice. The orthodoxy promoted by a class of childless men did not meet the emotional needs of mothers. Archaeologists would do well to remember, says Murphy (2011, p. 425), that the official societal response is not the only significant emotional one, nor is it the only one evidenced in the archaeological record.

#### THE EMOTIONAL BODY

For most anthropological scholars of emotion the point that emotional experience is corporeal as well as cerebral/cultural is fundamental. The archaeological examination of how the body experiences and partakes in emotion is not straightforward: Obviously the remains of bodies themselves cannot indicate their own bodily experience of emotion, so we need to infer from secondary indications. One obvious place to look is the representation of emotion in the body, through gesture, posture, and expression. Matthews's (2005) consideration of gesture and emotion in the Bronze Age contains a good theoretical introduction to the embodied nature of emotion, but his case study of how swords are wielded is not very extensive. Nevertheless, his starting point that "emotion is already and always present, we do not need to discover or excavate it" is interesting. Houston's (2001) study of the representation of emotion in Classic Maya imagery of the human body is more fully realized. Houston prefers to use the term affect, defined, following Besnier (1990, p. 421), as "the subjective states that observers ascribe to a person on the basis of the person's conduct." Thus the significance of the depictions of emotional bodies among the Classic Maya is that the emotional cargo of the image should be recognizable to others. Affect is thus interpersonal and socially significant (Houston 2001, p. 208). In the case of the Maya, although some poses and gestures might have had emotional meanings that are now opaque to us, other figures show emotional states that we can recognize: chiefly terror/distress, drunken abandon, lust, and grief (2001, p. 209). Houston's analvsis shows that these emotional states are portraved as the attributes of the vanquished and of lower-status people. High-status figures are emotionally unreadable and controlled. Thus, he argues that for the Maya display of emotions of fear, lust, drunkenness, and grief was negatively valued and that an emotional regime of control and restraint was highly esteemed. For Houston, then, the actual truth of emotional experience in the past is not necessarily relevant; his focus is on the shared and social evaluation of emotional states, evidenced in bodily action and gesture.

### WE ARE ALL THE SAME UNDERNEATH

It is nevertheless interesting that, although emotional restraint characterizes high-status behavior in several societies, it is not universal; a display of appropriate emotion can sometimes be socially demanded from high-status individuals. When Barack Obama failed to show sufficient rage over the BP oil spill in the Gulf of Mexico in 2010, for example, he was widely condemned in the media. Popular feeling (or at least popular journalistic feeling) was that he should have emoted more strongly; a cool and intellectual approach to the situation was not considered adequate. Cultural variability in emotional codes is not always addressed by archaeologists, and some believe that it is of little importance to our analyses. These are the scholars whose understanding of emotion is drawn not from historical or anthropological tradition but from the biological universalist

psychology of Ekman and others. They are predominantly evolutionary archaeologists taking inspiration from evolutionary psychologists and sharing a belief that emotion was an essential part of what it is to be human, but who viewed emotion as a near universal experience (except in the case of pathologies), which took place in the brain and the body and required a biological explanation, often in terms of adaptive fitness. Panksepp & Biven (2010) are not archaeologists, but their current book exemplifies the kind of approach that has been attractive to archaeologists such as Mithen (1991, 2005), who sees emotions as having a role in human evolution. In his most recent major work on the subject, Mithen (2005) examined the evolutionary significance of music as an emotionally significant form of communication. His work is often as unpopular with archaeologists (see, for example, Thomas 1991 for a critique) as it is popular with a general readership, as is often the case with evolutionary archaeology.

Recently Spikins et al. (2010) have also based their work on emotion in evolutionary archaeology on universal "key emotions," (p. 304) subscribing to the belief that it is in our biological makeup (nature rather than culture) that our "humanity" (p. 305) can be located. Minor cultural differences in the expression of emotion and small differences between individuals are marginal to the truth of "key emotional reactions [which] follow universal patterns [drawing on] patterns in the brain" (pp. 304–5). Like Mithen, the authors are concerned with the evolutionary role of emotion, arguing that it is compassion that makes us human, and therefore, our search should be focused on the identification of instances of compassion among hominins. This notion is actually both problematic and contentious for a number of reasons unrecognized by the authors. First, as they themselves note, compassionate behavior has been observed among several nonhuman animals, including dolphins, elephants, and several apes. Even insects have been described as exhibiting "altruistic" behavior (Tillman 2008). Thus the quintessential humanity of compassion is not proven. Second, even accepting the authors' contention that key universal emotions are the proper study of archaeology, the evidence for compassionate behavior in the remote past mostly turns on evidence of enduring physical disability [as is evident in Hublin's (2009) review of the prehistory of compassion], a tradition in which Spikins and colleagues also participate. In a nutshell, the argument for compassion from disability holds that individuals with long-standing chronic conditions or congenital physical disabilities whose capacity for physical action would have been constrained by their disability would need the support of the group in order to survive. Thus evidence of healed trauma in adults, or of conditions such as achondroplasia or severe osteoarthritis, which are evident in skeletal remains, can be seen as an index of compassion. This argument has been critiqued most cogently and persuasively by Dettwyler (1991), who has noted that it depends on a view of disabled people as useless and burdensome and ascribes their continued group membership to compassion rather than to their fulfillment of other roles. It also frequently underestimates the physical and other capacities of disabled people to look after themselves and others. Dettwyler's critique influenced the more cautious approach of, for example, Hawkey (1998), who limits her inferences of "disability" to the individual whose capacity for movement was most severely compromised and who would definitely have needed assistance from at least one other person over a long time period. Even then, she is unwilling to attribute this person's survival to compassion. Kjellström (2010) focuses her analysis on pain itself as a subjective physical and emotional experience, which recasts the individual with skeletal abnormality as the locus of emotional experience rather than as evidence for the compassionate attitudes of others.

### THE ARCHAEOLOGY OF POSITIVE EMOTION

Most archaeology of specific emotions focuses on the emotions of grief and fear/anxiety. As discussed above, the determination of compassion in the archaeological record is problematic. More imaginative work is needed to move the discussion of compassion away from disability and from the retrojection of modern ideas about the inherent burdensomeness of disabled people. Other positive emotions such as love and happiness have not yet been examined archaeologically, although see Whittle (2005) on conviviality in a Hungarian Neolithic community. Parrott (2005) considers the material culture of in-patients' rooms in a psychiatric unit as the "material culture of hope" (p. 248). Patients' hope that their stay in the unit was only temporary made them less likely to decorate or materially elaborate their rooms, which would be tantamount to accepting it as a long-term home. Instead, they focused material ornamentation on their own bodies, through careful attention to dress and hairstyles, which articulated relationships with the outside world. Parrott's was a study of the contemporary world; nothing comparable has been attempted in an archaeological context. Ronnes's (2004, 2006) study of aristocratic friendship through elite architecture in northern Europe is an interdisciplinary, multistranded project. For her, architecture can be studied as a means of creating not only strategic alliances of power, but also emotionally meaningful friendships. Myrberg's (2010) imaginative discussion of how the perception and meaning of color—understood in the Middle Ages to include what we would now call texture-were both social and emotional is an innovative attempt to widen archaeologies of emotion.

#### THEIR EMOTION, MY EMOTION: THE POTENTIAL AND THE LIMITS OF EMPATHY

Finally there is what one might call, rather than the archaeology of emotion, emotional archaeology, the acceptance and even celebration of the subjectivity and emotion of the archaeologist. It is important to distinguish past emotion as a subject of study from attention to one's own emotional relationship to archaeology in the present. Few archaeologists of emotion who

are interested in the former would advocate empathy as a methodology (although that is not always how they are represented).

There is a large literature on the involvement of emotions in contemporary heritage politics (e.g., Tubb 2006, Holloway & Kelvnäs 2007), but it is beyond the scope of this review. Related to this area of study, some archaeologists have argued that it is important to be subjectively aware of one's own state. Leone's view (2009, 2010) that we can and should let our own emotional positions inform our archaeological politics, and that the emotional/political commitment of archaeologists such as Johnson (1996) and Schrire (1995) whose emotional starting point—respectively, pride in England (according to Leone) and anger at racism in South Africa—should not be considered an unfortunate subjectivism but acknowledged as a productive source of critical engagement, is less introspective than some others who have made the archaeology of themselves a key study area (e.g., Karlsson 2000, Campbell & Ulin 2004, Brown 2007). To my mind this kind of writing is quite different from the rigorous academic study of past emotion, and it is unfortunate that these two kinds of "archaeology of emotion" are often conflated. Although an awareness of the positioned subjectivity of the archaeologist is important (Shanks & Tilley 1992), and the emotional experience of the archaeologist is undoubtedly part of that (e.g., Kus 1992, Downes & Pollard 1999), introspection is not in itself a methodology for understanding the emotions of past people.

## A WAY FORWARD? EMOTIONAL HISTORIES, EMOTIONAL THINGS

Despite the restricted size and the newness of a literature on the archaeology of emotion, there is considerable diversity, and indeed it does not yet form a coherent and self-referencing tradition. For this reason, it is still possible for archaeologists to shape the agenda, to experiment methodologically, and to add texture and richness to our studies of the past. What is likely to

be the way forward? In methodological terms, what we need are more worked examples of the imaginative interpretation of archaeological evidence. Although some sophisticated and extended works of general theory and philosophy of emotion as it relates to archaeology have been published (e.g., Tarlow 2000a, Gosden 2004, Harris & Sørensen 2010), there are still very few material examples. Emotion studies in archaeology must take account of two things in particular, and it is in the development of strong approaches to these two things that our discipline can make the most useful contribution to interdisciplinary work on emotion. The first is a sense of historical variability and change, and the second is attention to the way that emotion works through material things and places.

Interdisciplinary studies of emotion rarely nuance or problematize the variable historical constitution of emotional experience. Sociological and geographical approaches rarely look beyond a vague division into "modern" and "premodern" ways of feeling. However, much useful and sophisticated work on emotion in the past has been carried out by historians (Pinch 1995, Plamper 2010, Matt 2011), and we could usefully pay more attention to it. Like archaeologists, historians are concerned with understanding the emotions of those who are not directly observable, whose culture we do not share, and whose emotional lives may have been very different from our own. In a recent review of the history of emotion, Matt (2011, pp. 120-21) notes that historians, like archaeologists, generally take the view that emotion is neither wholly biological and chemical nor entirely produced through discourse. The most influential historical theorists of emotion have followed Febvre (1973) in rejecting the direct application of psychology to the past and instead trying to chart the different emotions of history. This method has mostly involved studying the shared emotional codes and standards that define a time and place. Stearns calls this "emotionology" (Stearns & Stearns 1985, Plamper 2010). Rosenwein (2002, 2010) suggested instead that multiple "emotional communities" need to be considered and that not all members of a society will share the same emotionology. A consideration of emotional communities will allow us to examine with greater precision the effect that gender, class, age, and community have on emotional experience. This will not, she says (2010), show us exactly how a certain individual felt at a particular moment, but it "will help us understand how people articulated, understood and represented how they felt. This, in fact, is about all we can know about anyone's feelings apart from our own" (p. 11).

The work of Rosenwein also exemplifies the greatest gap between histories of emotion and archaeologies of emotion: language. Historians are dependent primarily on the evidence of words, and their approaches therefore are strongly linguistic. Rosenwein relies on a "dossier of sources" (2010, p. 11), which are all written, although in an interview with Plamper (2010, pp. 254-55) she notes that music and art could also be sources and cites Gertsman's (2010) observations on the face in medieval art as a way of destabilizing Ekman's universal emotional facial expressions. Similarly, Reddy, another of the most influential historical thinkers of emotion, bases his emotional histories on the evidence of language—his "emotives" in effect privilege language as the primary source of information about emotion in the past, although he avows an interest in developing emotional histories beyond the educated elite (Reddy 1997; Plamper 2010, p. 249). Archaeology could certainly make a contribution to the interdisciplinary project of uncovering the emotional vocabularies of subaltern others. But for the purposes of archaeological study, Reddy's interest in "emotional regimes" is of obvious interest. Emotional regimes are the emotional styles that come to characterize particular systems of political administration. They are not directly manifest in the experience of any individual but are a way of tracing broad historical process and concern the way that political circumstance affects personal lives. For example, emotional regimes of mistrust and anxiety characterize many totalitarian regimes in which individuals are required to monitor and report on the conduct of their families, friends, and neighbors.

Matt's own work (2011) draws our attention to how an awareness of the emotional content of historical process makes the past look different. Thus, for example, the American Revolution was not only about political philosophy or the protection of economic interests, but also involved "affective bonds" (p. 120) of kinship and family. Similarly, the rise of capitalism is not just about economically rational behavior or instinctive acquisitiveness finally unleashed from the bonds of convention; it is about how people acquired the "emotional habits central to getting and spending" (p. 121) and new social attitudes toward envy, ambition, contentment, etc. (Matt 2003, 2007).

The second area to which archaeologies of emotion and affect could contribute is in the way that things, places, and the materiality of the world become emotionally meaningful and help to structure emotional relationships among people and in the ways that people relate to their environments. Although the emotional significance of things has been touched on by design theorists, most famously Norman (2004) who has argued that the success of everyday objects relates to their emotional appeal and not just to their functionality, their discussion has been focused very much on modern hi-tech objects. Archaeologists can take a wider and deeper view, exploring emotional significance as something inherent in the designed properties of a thing as well as exploring the accretion of emotional meaning through object biographies and context. Emotional geographies of place are similarly interesting but lack the historical dimension and the sense of chronological context that archaeologists customarily bring to their studies.

### WHAT IS INTERESTING AND WHAT IS NOT

Emotion is at the core of human experience. It enriches and makes meaningful our daily lives and our most significant moments. Several approaches for the archaeological study of

emotion have suggested how emotion in the past might be identified. The next challenge—and the work that will move our discipline forward—is to explore the social, cultural, and, in the broadest sense of the word, historical aspects of emotion, which I argue must focus on its variability. By analogy, if we find an ancient shoe in an archaeological context, it might tell us about ideas of the body, habitual activities, aesthetic preferences, gender, economy, and all manner of other cultural information.

The least interesting thing it tells us is that people in the past had feet. Similarly, the basic identification of fear or joy in the past does not advance us much. But identifying a period, place, and a group of people as living in a climate of fear, or an environment where their fear was manipulated and directed to promote group cohesion, or conformity to certain beliefs or social practices is a contextual and historical conclusion that enhances our knowledge of the past.

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#### LITERATURE CITED

Ahmed S. 2004. The Cultural Politics of Emotion. Edinburgh: Edinburgh Univ. Press

Appleby JEP. 2010. Why we need an archaeology of old age and a suggested approach. Nor. Archaeol. Rev. 43(2):145-68

Ariès P. 1986 [1962]. Centuries of Childhood. New York: Random House

Barfield O. 1954. History in English Words. London: Methuen

Besnier N. 1990. Language and affect. Annu. Rev. Anthropol. 19:419-51

Brown M. 2007. The fallen, the front and the finding: archaeology, human remains and the Great War. Archaeol. Rev. Camb. 22(2):53–68

Brück J. 2005. Experiencing the past? The development of a phenomenological archaeology in British prehistory. *Archaeol. Dialogues* 12(1):45–72

Campbell C. 1987. The Romantic Ethic and the Spirit of Modern Consumerism. Oxford: Blackwell

Campbell F, Ulin J. 2004. BorderLine Archaeology: A Practice of Contemporary Archaeology—Exploring Aspects of Creative Narratives and Performative Cultural Production. Göteborg, Swed.: Dep. Archaeol., Göteborg Univ.

Chesson M. 2013. Risky business: a life full of obligations to the dead and the living on the Early Bronze Age Dead Sea Plain, Jordan. See Fleisher & Norman 2013. In press

Cowgill G. 1993. Beyond criticising the New Archaeology. Am. Anthropol. 95:551-73

Cummings V. 2002. Between mountains and sea: a reconsideration of the Neolithic monuments of south-west Scotland. Proc. Prehist. Soc. 68:125–46

Davidson J, Bondi L, Smith M, eds. 2005. Emotional Geographies. Farnham, UK: Ashgate

Dettwyler KA. 1991. Can paleopathology provide evidence for "compassion"? Am. J. Phys. Anthropol. 84(4):375–84

Downes J, Pollard T. 1999. Preface. In *The Loved Body's Corruption: Archaeological Contributions to the Study of Human Mortality*, ed. J Downes, T Pollard, pp. x–xiv. Glasgow: Cruithne

Ekman P. 1980a. Biological and cultural contributions to body and facial movement in the expression of emotions. In *Explaining Emotions*, ed. A Rorty, pp. 73–110. Berkeley: Univ. Calif. Press

Ekman P. 1980b. The Face of Man: Expressions of Universal Emotions in a New Guinea Village. New York: Garland STPM

Ekman P. 1984. Expression and the nature of emotion. In *Approaches to Emotion*, ed. KR Scherer, P Ekman, pp. 319–43. Hillsdale, NJ: Erlbaum

- Ekman P. 1993. Facial expression and emotion. Am. Psychol. 48(4):384–92
- Ekman P. 1994. All emotions are basic. In The Nature of Emotion: Fundamental Questions, ed. P Ekman, RJ Davidson, pp. 15–19. New York/Oxford: Oxford Univ. Press
- Ekman P, Friesen WV. 1972. Emotion in the Human Face. New York: Pergamon
- Fahlander F, Kjellström A, eds. 2010. Making Sense of Things: Archaeologies of Sensory Perception. Stockholm Stud. Archaeol. 53. Stockholm: Dep. Archaeol. Class. Hist., Univ. Stockholm
- Febvre L. 1973 [1938]. History and psychology. In A New Kind of History: From the Writings of Febvre, ed. P Burke, transl. K Folca, pp. 1–11. New York: Harper and Row
- Fleisher J, Norman N, eds. 2013. The Archaeology of Fear, Anxiety and Ritual. New York: Springer. In press
- Fleming A. 2000. St Kilda: family, community and the wider world. J. Anthropol. Archaeol. 19:348–68
- Flohr Sørensen T, Lumsden S. 2013. Hid in death's dateless night: the lure of an uncanny landscape in Hittite Anatolia. See Fleisher & Norman 2013. In press
- Fowler C. 2000. "The individual", "the subject" and archaeological interpretation: reading Judith Butler and Luce Irigaray. In *Philosophy and Archaeological Practice: Perspectives for the 21st Century*, ed. H Karlsson, C Holtorf, pp. 107–22. Lindome, Swed.: Bricoleur
- Foxhall L. 2012. Material values: emotion and materiality in ancient Greece. In *The Role of Emotions in Classical Antiquity*, ed. A Chaniotis, P Ducrey. Stuttgart: Steiner Verlag
- Gero J, Conkey M, eds. 1991. Engendering Archaeology. Oxford: Blackwell
- Gero J, Conkey M. 1997. From programme to practice: gender and feminism in archaeology. Annu. Rev. Anthropol. 26:41–37
- Gertsman E. 2010. The facial gesture: (mis)reading emotion in later medieval art. J. Mediev. Relig. Cult. 36(1-2):28-46
- Gonciar A. 2009. Excavating the invisible: recognizing emotion in the archaeological record. Presented at Inst. Eur. Mediterr. Archaeol., Nov. 11th, Buffalo, NY
- Gosden C. 2004. Aesthetics, intelligence and emotions: implications for archaeology. In *Rethinking Materiality: The Engagement of Mind with the Material World*, ed. E De Marrais, C Gosden, C Renfrew, pp. 33–42. Cambridge, UK: McDonald Inst. Monogr.
- Gov. Account. Off. 2010. Aviation Security: Efforts to Validate TSA's Passenger Screening Behavior Detection Program Underway, but Opportunities Exist to Strengthen Validation and Address Operational Challenges. GAO-10-763. Washington, DC: Gov. Account. Off. http://www.gao.gov/assets/310/304510.pdf
- Grguric N. 2008. Fortified homesteads: the architecture of fear in frontier South Australia and the Northern Territory, ca. 1847–1885. *J. Confl. Archaeol.* 4(1–2):59–85
- Hamilakis Y. 2002. The past as oral history: towards the archaeology of the senses. See Hamilakis et al. 2002, pp. 121–36
- Hamilakis Y, Pluciennik M, Tarlow S, eds. 2002. Thinking Through the Body: Archaeologies of Corporeality. London: Kluwer Acad./Plenum
- Härke H. 2001. Cemeteries as places of power. In *Topographies of Power in the Early Middle Ages*, ed. F Theuws, M DeJong, C van Rhijn, pp. 9–30. Leiden: Brill
- Harré R. 1986. An outline of the social constructionist viewpoint. In The Social Construction of Emotions, ed. R Harré, pp. 2–14. Oxford: Blackwell
- Harris O. 2009. Making places matter in early Neolithic Dorset. Oxf. J. Archaeol. 28(2):111-23
- Harris O. 2010. Emotional and mnemonic geographies at Hambledon Hill: texturing Neolithic places with bodies and bones. *Camb. Archaeol.* 7, 20(3):357–71
- Harris O. 2011. Constituting childhood: identity, conviviality and community at Windmill Hill. In Rethinking the Little Ancestor: New Perspectives on the Archaeology of Childhood and Infancy, ed. M Lally, A Moore, pp. 122–32. Oxford: Br. Archaeol. Rep.
- Harris O. 2012. Striking emotions: violence as a materially affective practice in the British Neolithic. In Body Histories, ed. D Borić, O Harris. Cambridge, UK: MacDonald Inst. In press
- Harris O. 2013. Communities of anxiety: gathering and dwelling at causewayed enclosures in the British Neolithic. See Fleisher & Norman 2013. In press
- Harris O, Sørensen TF. 2010. Rethinking emotion and material culture. Archaeol. Dialogues 17(2):145-63
- Hawkes C. 1954. Archaeology theory and method: some suggestions from the Old World. Am. Anthropol. 56:155–68

- Hawkey DE. 1998. Disability, compassion and the skeletal record: using musculoskeletal stress markers (MSM) to construct an osteobiography from Early New Mexico. *Int. J. Osteoarchaeol.* 8:326–40
- Hayden B. 2009. Funerals as feasts: Why are they so important? Camb. Archaeol. 7. 19:29-52
- Hodder I. 1982. Symbols in Action: Ethnoarchaeological Studies of Material Culture. Cambridge, UK: Cambridge Univ. Press
- Hodder I. 1989. This is not an article about material culture as text. J. Anthropol. Archaeol. 8:250-69
- Hodder I. 1991a. Interpretative archaeology and its role. Am. Anthropol. 56:7-18
- Hodder I. 1991b. Postprocessual archaeology and the current debate. In Processual and Postprocessual Archaeologies: Multiple Ways of Knowing the Past, ed. RW Preucel, pp. 30–41. Occas. Pap. 10. Carbondale, IL: Cent. Archaeol. Investig., South. Ill. Univ.
- Hodder I. 1991c. Reading the Past: Current Approaches to Interpretation in Archaeology. Cambridge, UK: Cambridge Univ. Press. 2nd ed.
- Holloway J, Kelvnäs A, eds. 2007. The disturbing past. Archaeol. Rev. Camb. 22.2
- Houston SD. 2001. Decorous bodies and disordered passions: representations of emotion among the Classic Maya. World Archaeol. 33(2):206–19
- Hovers E, Belfer-Cohen A. 2012. Insights into early mortuary practices of Homo. In The Oxford Handbook of the Archaeology of Death and Burial, ed. S Tarlow, L Nilsson Stutz. Oxford, UK: Oxford Univ. Press. In press
- Hublin J-J. 2009. The prehistory of compassion. Proc. Natl. Acad. Sci. USA 106:6429-30
- Izard CE. 1971. The Face of Emotion. New York: Appleton-Century-Crofts
- Izard CE. 1977. Human Emotions. New York: Plenum
- Izard CE. 1991. The Psychology of Emotions. New York: Plenum
- Izard CE. 1992. Basic emotions, relations among emotions and emotion-cognition relations. Psychol. Rev. 99:561–65
- Johnson M. 1996. An Archaeology of Capitalism. Oxford: Blackwell
- Johnson M. 1999. Archaeological Theory. Oxford: Blackwell
- Karlsson H. 2000. Comment on Tarlow 2000. Curr. Anthropol. 41(5):734-35
- Kjellström A. 2010. Tracing pain: identifying suffering in skeletal remains. See Fahlander & Kjellström 2010, pp. 51–68
- Kus S. 1992. Toward an archaeology of body and soul. In Representations in Archaeology, ed. J-C Gardin, C Peebles, pp. 168–77. Bloomington: Indiana Univ. Press
- Kus S. 2000. Comment on Tarlow 2000. Curr. Anthropol. 41(5):735
- Leone M. 1995. A historical archaeology of capitalism. Am. Anthropol. 97(2):251-68
- Leone M. 2009. Making historical archaeology postcolonial. In *International Handbook of Historical Archaeology*, ed. T Majewski, D Gaimster, pp. 159–68. New York: Springer
- Leone M. 2010. Critical Historical Archaeology. Walnut Creek, CA: Left Coast
- Lorimer H. 2005. Cultural geography: the busyness of being 'more-than-representational'. *Prog. Hum. Geogr.* 29:83–94
- Lorimer H. 2008. Cultural geography: non-representational conditions and concerns. *Prog. Hum. Geog.* 32(4):551–59
- Lutz C, White GM. 1986. The anthropology of emotions. Annu. Rev. Anthropol. 15:405-36
- Matt S. 2007. You can't go home again: homesickness and nostalgia in U.S. history. 7. Am. Hist. 94:469–97
- Matt SJ. 2003. Keeping Up With the Joneses: Envy in American Consumer Society, 1890–1930. Philadelphia: Univ. Penn. Press
- Matt SJ. 2011. Current emotion research in history: or, doing history from the inside out. Emot. Rev. 3(1):17-24
- Matthews S. 2005. The materiality of gesture: intimacy, emotion and technique in the archaeological study of bodily communication. Presented at Annu. Meet. Eur. Assoc. Archaeol., 11th, Cork, Irel. http://www.
  - semioticon.com/virtuals/archaeology/materiality.pdf
- McCartney M. 2006. Finding fear in the Iron Age of Southern France. 7. Confl. Archaeol. 2(1):99-118
- MacDonald D. 2001. Grief and burial in the American Southwest. Am. Antiq. 66(4):704-14
- Menasco MG, Menasco MA, O'Sullivan M. 2008. Human behavior and deception detection. In *Handbook of Science and Technology for Homeland Security*, Vol. 5, ed. JG Voeller, pp. 1–12. Hoboken, NJ: Wiley

- Meskell L. 1994. Dying young: the experience of death at Deir el Medina. Archaeol. Rev. Camb. 13(2):35-46
- Meskell L. 1999. Archaeologies of Social Life: Age, Sex, Class Etcetera in Ancient Egypt. Oxford: Blackwell
- Meskell L. 2002. Private Life in New Kingdom Egypt. Princeton, NJ: Princeton Univ. Press
- Mesquita B, Walker R. 2003. Cultural differences in emotions: a context for interpreting emotional experiences. Behav. Res. Ther. 41:777–93
- Milton K, Svašek M, eds. 2005. Mixed Emotions: Anthropological Studies of Feeling. Oxford: Berg
- Mithen SJ. 1991. A cybernetic wasteland? Rationality, emotion and Mesolithic foraging. *Proc. Prehist. Soc.* 57(2):9–14
- Mithen SJ. 2005. The Singing Neanderthals: The Origins of Music, Language, Mind and Body. London: Weidenfeld and Nicolson
- Murphy EM. 2011. Children's burial grounds in Ireland (cilliní) and parental emotions toward infant death. Int. 7. Hist. Archaeol. 15(3):409–28
- Myrberg N. 2010. The colour of money: crusaders and coins in the thirteenth-century Baltic Sea. See Fahlander & Kjellström 2010, pp. 83–102
- Nilsson Stutz L. 2003. Embodied Rituals and Ritualised Bodies. Lund, Swed.: Acta Archaeol. Lundensia 46 pp.
- Norman D. 2004. Emotional Design: Why We Love (or Hate) Everyday Things. New York: Basic Books
- Nyberg J. 2010. A peaceful sleep and Heavenly celebration for the pure and innocent: the sensory experience of death during the long eighteenth century. See Fahlander & Kjellström 2010, pp. 15–34
- Ortony A, Turner TJ. 1990. What's basic about basic emotions? Psychol. Rev. 97:315-31
- Panksepp J. 2004 [1998]. Affective Neuroscience: The Foundations of Human and Animal Emotions. Cary, NC: Oxford Univ. Press
- Panksepp J, Biven L. 2010. The Archaeology of Mind: Neural Origins of Human Emotion. New York: Norton
- Parrott F. 2005. "It's not forever": the material culture of hope. J. Mater. Cult. 10(3):245-62
- Pinch A. 1995. Emotion and history: a review article. Comp. Stud. Soc. Hist. 37:100-9
- Plamper J. 2010. The history of emotions: an interview with William Reddy, Barbara Rosenwein, and Peter Stearns. Hist. Theory 49(2):237–65
- Reddy WM. 1997. Against constructionism: the historical ethnography of emotions. *Curr. Anthropol.* 38(3):327–51
- Reynolds A. 2009. Anglo-Saxon Deviant Burial Customs. Oxford: Oxford Univ. Press
- Ronnes H. 2004. Friendship and power: the architecture of William of Orange. Archaeol. Dialogues 11(1):57-72
- Ronnes H. 2006. Architecture and Élite Culture in the United Provinces, England and Ireland, 1500–1700. Amsterdam: Amsterdam Univ. Press
- Rosaldo R. 1993 [1989]. Introduction: grief and a headhunter's rage. In Culture and Truth: The Remaking of Social Analysis, ed. R Rosaldo, pp. 1–23. London: Taylor and Francis
- Rosenwein B. 2002. Worrying about emotions in history. Am. Hist. Rev. 107(3):821-45
- Rosenwein B. 2010. Problems and methods in the history of emotions. Passions Context: J. Hist. Phil. Emot. 1:1–32
- Roymans N. 1995. The cultural biography of urnfields and the long-term history of a mythical landscape Archaeol. Dialogues 2(1):2–38
- Schrire C. 1995. Digging Through Darkness: Chronicles of an Archaeologist. Charlottesville: Univ. Press Va.
- Semple S. 1998. A fear of the past: the place of the prehistoric burial mound in the ideology of middle and later Anglo-Saxon England. World Archaeol. 30(1):109–26
- Shanks M, Tilley C. 1987. Social Theory and Archaeology. Cambridge, UK: Polity
- Shanks M, Tilley C. 1992. Reconstructing Archaeology. London: Routledge. 2nd ed.
- Simonsen K. 2007. Practice, spatiality and embodied emotions: an outline of a geography of practice. Hum. Affairs 17:168–81
- Smith M, Davidson J, Cameron L, Bondi L, eds. 2009. Emotion, Place and Culture. Farnham, UK: Ashgate
- Spikins PA, Rutherford H, Needham A. 2010. From hominity to humanity: compassion from the earliest archaics to modern humans. *Time Mind* 3(3):303–25
- Stearns CZ, Stearns PN. 1986. Anger: The Struggle for Emotional Control in America's History. Chicago: Univ. Chicago Press
- Stearns P, Knapp M. 1996. Historical perspectives on grief. In *The Emotions: Social, Cultural and Biological Dimensions*, ed. R Harré, WG Parrott, pp. 132–50. London/Thousand Oaks, CA/New Delhi: Sage

- Stearns PN. 1989. Jealousy: The Evolution of an Emotion in American History. New York/London: New York Univ. Press
- Stearns PN. 1993. History of emotions: the issues of change. In *Handbook of Emotions*, ed. M Lewis, JM Haviland, pp. 17–28. New York/London: Guildford
- Stearns PN, Stearns CZ. 1985. Emotionology: clarifying the history of emotions and emotional standards. Am. Hist. Rev. 90(4):813–36
- Stets J, Turner J. 2007. Handbook of the Sociology of Emotions. New York: Springer
- Tarlow S. 1997. An archaeology of remembering: death, bereavement and the First World War. Camb. Archaeol. 7. 7(1):105–21
- Tarlow S. 1998. Romancing the stones: the gravestone boom of the later eighteenth century. In *Grave Concerns*, *Life and Death in Post-Medieval England 1700–1850*, ed. M Cox, pp. 33–43. York: CBA Publ.
- Tarlow S. 1999a. Bereavement and Commemoration: An Archaeology of Mortality. Oxford: Blackwell
- Tarlow S. 1999b. Wormie clay and blessed sleep: death and disgust in later historical Britain. In *The Familiar Past? Archaeologies of Later Historical Britain*, ed. S Tarlow, S West, pp. 183–98. London: Routledge
- Tarlow S. 2000a. Emotion in archaeology. Curr. Anthropol. 41(5):713-14
- Tarlow S. 2000b. Landscapes of memory: the nineteenth-century garden cemetery. Eur. J. Archaeol. 3(2):217–39
- Thomas J. 1991. The hollow men? A reply to Steven Mithen. Proc. Prehist. Soc. 57(2):15-20
- Thomas J. 1996. Time, Culture and Identity: An Interpretive Archaeology. London: Berg
- Thomas J. 2002. Archaeology's humanism and the materiality of the body. See Hamilakis 2002, pp. 29-46
- Tilley C. 1991. Material Culture and Text: The Art of Ambiguity. London: Routledge
- Tilley C. 1994. A Phenomenology of Landscape: Places, Paths and Monuments. Oxford: Blackwell
- Tilley C. 2004. Round barrows and dykes as landscape metaphors. Camb. Archaeol. J. 14:185–203
- Tillman JJ. 2008. Sacrificial agape and group selection in contemporary American Christianity. Zygon 43(3):541-46
- Tubb KW. 2006. Artifacts and emotion. In Archaeology, Cultural Heritage, and the Antiquities Trade, ed. N Brodie, MM Kersel, C Luke, KW Tubb, pp. 284–302. Gainesville: Univ. Press Fla.
- Turner JH, Stets JE. 2005. The Sociology of Emotions. Cambridge, UK: Cambridge Univ. Press
- Weber M. 1946 [1917]. Science as a vocation. In From Max Weber: Essays in Sociology, ed. HH Gerth, C Wright Mills, pp. 129–56. New York: Oxford Univ. Press
- Whittle A. 2005. Lived experience in the Early Neolithic of the Great Hungarian Plain. In (Un)settling the Neolithic, ed. D Bailey, A Whittle, V Cummings, pp. 64–70. Oxford: Oxbow
- Wierzbicka A. 2010. The "history of emotions" and the future of emotion research. Emot. Rev. 2(3):269-73
- Williams H. 2007. The emotive force of early medieval mortuary practices. Archaeol. Rev. Camb. 22.1:107–23



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