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Doing sensory archaeology The challenges

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The Routledge Handbook of Sensory Archaeology

Edited by Robin Skeates and Jo Day

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Doing sensory archaeology

The challenges

Ruth Tringham and Annie Danis

Abstract

This chapter is inspired by a challenge from Yannis Hamilakis (2013a) to put into practice sensorially reconstituted archaeologies. While he and others have strongly laid out the theoretical goals of such a large-scale shift in thinking about archaeology and the senses, those changes have yet to be borne out in practice. 'Doing' sensorial archaeologies cannot be done without a self-reflexive awareness of multisensorial elements in every experience of modern archaeology and the imagined past. Here multisensorial reflexivity guides the 'doing' towards an expanded toolkit of methods, some from within archaeology and some from other disciplines, that access, interpret, and evoke sensorial attention.

Introduction

What are sensory archaeologies? What could they be?

From the start, we realized we must have a firm understanding of what we mean by sensory archaeologies in the first place in order to speculate and reflect on their methods. To orient our definition, we turned to the introduction of this volume which outlines the concerns and challenges of sensory archaeologies.

Annie

I agree with the editors that two strengths of sensory archaeologies should be an expanded viewpoint and a rigorous immersion in the lived realities of archaeological evidence. I also agree that thinking sensorially invokes interesting and enriching research questions not yet tackled by archaeology. I do not agree, however, that such archaeologies help distance ourselves from our cultural bias. On the contrary, thinking sensorially requires a closer, more intimate engagement with our biases and a deepened interrogation of how they influence our interpretations. It is an important strength of sensorial approaches that they cannot proceed without an acknowledgement of the contemporary entanglements and experiences archaeologists bring with them.

Furthermore, I certainly agree that sensory archaeologies require innovative methodologies for dissemination, but I do not think that is enough. The sensory requires an innovative engagement with representational forms at all stages of the research process, not only to communicate a 'final' interpretation or idea (which is problematic as it assumes the genius of recognition only on the part of the archaeologist) but to produce, and reflect upon, sensory data in the first place.

Ruth

The main questions and methodologies that are posed in the volume concern how a sensorial focus broadens and expands the content of the archaeological record. This puts investigation of sensorial experience and perception at the forefront of the archaeological process. This is different from traditional archaeological treatment of sensorial experience, which tends to forefront archaeological practice and treat sensorial experience as an epiphenomenon.

In this chapter Annie and I take up the challenge from Yannis Hamilakis to put into practice a sensorial discipline that:

> demands a break from the conventions of thinking and doing archaeology, be it positivist, textualist, interpretative, or narrow-defined phenomenological. … In fact, a sensorially reconstituted archaeology will … produce a completely different discipline – an undisciplined discipline which will not be motivated by the desire to tame the unruly nature of the sensorial, nor to banish its affective work … sensoriality demands nothing less than a major paradigmatic shift.
>
> *(Hamilakis, 2013a, p.203)*

To 'do' sensorial archaeologies, we do not need to forefront 'the senses or sensorial experience' exclusively, since rich, contextual investigations of the past cannot be done without a self-reflexive awareness of multisensorial elements in every experience and event of modern archaeology and the imagined past. In this sense, practicing a sensorially reconstituted archaeology has many characteristics in common with doing it as a feminist.

Annie

What sensory archaeologies demand, in addition to a deep attention to the senses, is an attention to the way the senses intersect with knowledge production, again paralleling feminist approaches. Alison Wylie reminds us that, 'what a feminist perspective brings to bear is a critical, theoretically and empirically informed, standpoint on knowledge production' (Wylie, 2007, p.213). If we mirror this commitment as sensorialists, we aim to never allow the sensory or affective dimension of experience to disappear from our work, not just in the way we represent it 'in the end' but from the beginning of our thinking on research design and in the very methods we use to construct archaeological evidence. Furthermore, sensory archaeologies benefit from an understanding that the norms or presuppositions of an approach can be revised through what is learned in practice (Wylie, 2007, p.212).

The opportunities provided by taking the senses seriously in archaeological practice require openness and flexibility. The affective, sensuous, and emotional are by no means too slippery for archaeological attention (Tarlow, 2012). Rather, they are the breeding ground of expansive, contextual, and revisionary archaeological work. This includes the celebration of ambiguity (Engelstad, 2007; Gero, 2007; Wylie, 2007), which also necessarily acknowledges the political imperatives expressed by Hamilakis (2013a, pp.9, 56).

Ruth

It acknowledges also the idea of the ephemerality, changeability, and diversity of multisensorial experience for each person in a constant entanglement with other trajectories of people, places, and things.

Annie

That's what sensory archaeologies are to us. We orient our work towards thinking of sensory archaeologies as a theoretical framework, not 'archaeology of the senses' as a subfield. From this grows a logic of practice (the ghost of Bourdieu) or the structuring principle that guides the 'doing'; a framework to scaffold practice. The methods we discuss in this chapter are choices, a few of many, that an archaeologist may make to orient their work towards the goals of sensory archaeologies regardless of the themes of their material. For us, this is the difference between a functionally different 'way of working' and a set of new tasks slotted into business as usual (Culhane, 2017b, p.45).

What have sensory archaeologies been?

Annie

The idea of the sensory as a 'way of working' has not been fully borne out in archaeological practice as of yet, but a few decades of interest in the senses in the past has set the stage for the reconstitution of practice through sensory awareness. Interests in documenting ancient sensory hierarchies (Houston and Taube, 2000), aesthetics (Gosden, 2001), landscape (in the form of viewshed, 'soundshed,' (Fischer-Ausserer and Börner, 2003), materiality (Hurcombe, 2007; Tilley, 2004), mediation (Witmore, 2004), food (Hamilakis, 2013b; Hopwood, 2013), and a long-standing engagement with sound (Loren, 2008; Mills, 2014; Scarre and Lawson, 2006), represent the diverse pathways and approaches to the senses currently on offer.

In the 1990s archaeology, which had long dealt with the body implicitly, began taking up the concept of embodiment, following trends in anthropology and other social sciences (Csordas, 1990). Drawing on feminist discourses of bodily practice and performance, an archaeology of embodiment has since emerged which focuses on the body as a site of lived experience, as a social entity, and as a site of embodied agency (paraphrasing Joyce, 2005; see also, Shanks, 1995; Fisher and Loren, 2003). Around the same time, interests in archaeological conceptions of time and place (Thomas, 1996; Ingold, 1993) brought together the work of phenomenological philosophers with largely post-processual archaeologists interested in integrated, multi-scalar approaches to landscape (Ashmore and Knapp, 1999; Bender, 1993; 2002; Tilley, 2009). Both approaches eventually inspire an interest in the senses, but result in very different approaches, focusing on performative and individual scale experience (embodiment) and architecture and landscape-based approaches (phenomenology).

Sensory archaeologies of the last decade have also been heavily influenced by the 'sensory studies' school incubated by David Howes and Constance Classen at Concordia University (Howes, 2013; Howes and Classen, 2014). This approach blends anthropological and historical methods in a consideration of sensory experience in the past and the present and operates following three general tenets. The first is the general lack or erasure of non-visual senses in existing scholarship (Howes, 2003; Classen, 1993). The second is that the senses are historically and culturally informed, situated, and structured and take the form of discursive sensory modalities or hierarchies (Classen, 2012). Finally, a sensory studies approach assumes the sensuous

experience of life is to be multisensorial, rather than easily divided up into experiences restricted to particular sensing organs (Howes, 2005).

From these origin points, three varieties, approaches, or waves of sensory archaeologies have emerged. The utility of the term 'waves' is primarily in its parallelism with debates in feminist theory. Of course, the development of these waves has not followed a neat chronological sequence. It is true, after all, that I could show up to a party with a feminist from each 'wave' today (and what fun that would be!) and the same is true of sensorial archaeologists. Understanding these three facets of sensory work will ground the methodological challenges and opportunities of sensory archaeologies, and explain where Ruth and I stand in his chapter.

First-wave sensory archaeologies are primarily focused on making an argument for archaeology's ability to access data relevant to the senses in the past. Like the first-wave feminist approach of 'add women and stir,' first wave sensory archaeologies 'add senses and stir' (Hamilakis, 2013a, p.203). First-wave sensory studies may gesture towards the complexity and interrelationship of the senses with other facets of experience in the past, but do not engage strongly (or at all) with any particular sensory theory that would complicate a universalizing model of perception and the separation of the senses into five discrete entities. They are generally restricted to arguments of 'the senses were there' and the senses are defined and divided using the contemporary (Western) Aristotelian five senses. They focus on quantitative, experimental methods for accessing data about the sensory experience of the past, especially acoustics, with an aim to prove that sensory experience can be elucidated through archaeological tools, but often stop short of engaging with the social aspects of sensory experience (e.g. Scarre and Lawson, 2006).

Second-wave sensory studies build from 'finding the senses' to investigations in support of the foundational assumption of the socially and historically contingent nature of sensory modalities, hierarchies, and experiences. These arguments move beyond statements that merely acknowledge the existence of sensory experience and attempt to describe and document a variety of sensory frameworks and experiences that are socially and culturally contingent following the framework of sensory studies explicitly (e.g. Boivin et al., 2007; Day, 2013b; Houston and Taube, 2000; Mills, 2014).

Third-wave sensory studies consider the senses a theoretical paradigm through which to view archaeological material. This approach is not archaeology *with* the senses, but archaeology *of* the senses. They engage with theories of the senses to explore both how sensory data might be accessed and how a sensory approach might fundamentally change archaeological research questions and methods. Third-wave studies approach 'the sensory' as an ontological position (rather than an assumed set of behaviours) that might help researchers engage with the goals of a variety of other contemporary research agendas including feminist, queer, and critical indigenous theory. The senses are not only capacities to be studied and studied with, they are also part of a philosophically rich paradigm that attempts to shift away from the fundamentally Cartesian practices of archaeology and Western conceptions of the senses. In this way, the third wave of sensory archaeology becomes what Hamilakis (2013a) describes as sensorially reconstituted archaeologies. While the theoretical goals of such archaeologies have heretofore been outlined, such a large-scale shift in thinking has yet to be borne out in practice. How to enact third-wave archaeologies is the focus of this chapter.

What are our goals for the chapter?

Sensory archaeologies have now amassed enough ink to support lengthy intellectual cartographies, but we lack the pragmatics of producing a sensory archaeology, from start to finish, as a primary motivator, at a long-term scale (rather than as a side project, revision of previous work,

or novelty add-on). How does shifting the focus of archaeological investigation towards sensorial awareness affect or fail to affect the methods that archaeologists use? How does the necessity to tell the story differently (i.e. evoke smell through an installation rather than writing) affect or fail to affect what sensory archaeologists consider relevant data?

The theoretical groundwork has been laid for thinking sensorially, but is still very much in development. Methodological responses need to keep pace in order to be in dialogue with these theoretical positions. In fact, the difference means less and less as we recognize the co-constructed nature of practices 'theoretical' and 'methodological.' One of the great advantages of thinking sensorially for an archaeologist is how the act queers our understanding of received categories (Danis, in press). In the same way, sensorial archaeologies demonstrate the artificial separation of method from theory, needing both to change in order to proceed. Throughout this chapter, we gesture towards theoretical avenues that each method reflects, even if space limits us from following the connections through.

The goal of this chapter is to direct sensorially reconstituted archaeologies towards an expanded toolkit of methods, some from within archaeology and some from other disciplines, that access, interpret, represent, and evoke sensorial attention.

Preparing our minds and clarifying intentions

Robin Skeates (2010, p.4) laments the paucity of methodological recommendations for 'doing' sensorial archaeologies and offers five 'methodological suggestions': reflexivity, inventory, experimentation, thick description, and creative writing. We expand on his suggestions to put sensorially reconstituted archaeologies into practice.

Educating your attention and imagination

Ruth

Practising sensorially reconstituted archaeology means being personally sensorially aware throughout the workflows of your archaeological practice. It means paying attention to not just being in the world, but of being alive to what is going on there (Ingold, 2011a, p.238). How do we cultivate attention to the sensory in our personal present in order to have the sensory agility to imagine the past (Culhane, 2017a, p.8)? How do we cultivate collective sensory attention among our research teams and research partners?

Sensory awareness is code for the use of the imagination. You will not be able to avoid using your imagination, but you will need to take seriously (if playfully) the different kinds of knowledges that are produced by imaginative practices. Instead of distancing yourself from your own cultural bias, we suggest embracing the challenge of being in your present context (including your body) at the same time as imagining people and places in a past context. Being aware of how you came to those imaginings (sleep-dreaming, day-dreaming, a past experience, something you read, a film you saw), is tantamount to being sensorially aware. Imagination is used throughout the archaeological process, from creating subjects of investigation/attention to creating expectations and strategies during fieldwork and analysis. The imagination helps visualize and understand a problem from different perspectives and points of view. The imagination fills the intangible gaps between the perceived and tangible retrieved archaeological fragments. Many sources in anthropology and archaeology provide valuable tools for using the imagination (Clifford, 1986; Culhane, 2017a; Joyce, 2002; Shanks, 2012).

Multiple scales

Ruth

Rosemary Joyce (2002, p.34) has drawn our attention to two divergent chronotopes, the way in which scalar configurations of time and space and their fusion are represented in language and discourse (following Bakhtin, 1981) that are developed in archaeology. One is an evolutionary chronotope and the other an experience/discovery chronotope. I feel that the 'experience/discovery chronotope' is most appropriate to the practice of sensorial archaeologies, in that it involves investigating from the specific individual experience to the general, thus avoiding essentializing the sensory experience and disregarding its contextual contingency (that is otherwise characteristic of a sensory studies approach, see Pink and Howes, 2010; Ingold, 2011b). Thus we recommend taking up the challenge of imagining sensorial experience at the level of individuals—experiencing, perceiving, moving, embodied people, each of whom is diverse in terms of age, gender, (dis)ability, life-history, and who experience diverse individual events and tasks in their social practice (Van Dyke, 2013, p.397). At the same time, it is essential to build from this intimate scale to construct the household and community collective at multiple scales of imagined past sensory experiences. How we do this, and the ethics and the perils of potential ethnocentricity involved, is still part of an active and interesting debate, but transparency and self-awareness cannot harm (Tringham, 2012b, p.532; 2015a; 2015b).

AU: References 'Bakhtin, 1981; Hamilakis, 2014; Krause, 2002; Douglas, 2000; Morgan, 2008' are cited in the text but not provided in the reference list. Please check and provide the details for these references.

Different ways of knowing

Annie

To execute sensorially reconstituted archaeologies, as we have outlined them so far, requires a shift in the way we conceive of our data. We need to enact different forms of knowing, which necessarily requires alternative practices. We need practices that follow a path to knowledge different from the traditional expectations of academic archaeology.

Ruth

The alternative path that Jerome Bruner identified is the 'narrative mode of thought,' which he contrasts with a 'scientific-logical mode of thought' (Bruner, 1986, ch.2). Though they are not mutually exclusive, each mode differs in how to order experience, how to construct reality (truth), their procedures of verification, and their use of the imagination. The 'scientific-logical mode' leads to a search for universal truth conditions; the 'narrative mode' looks for likely specific connections between two events. Sensorially reconstituted archaeologies are likely to produce the experimental end-products first and foremost through the 'narrative mode.' This is archaeology that is interpreted from the bottom up, from a specific past event or sequence of events. What makes this radical is that the process of investigation is itself not glossed over or minimized, but its details become part of the narrative. By personalizing the investigation, the interpretive process becomes transparent, and the ambiguities of the empirical details and all their absences and inadequacies become an active part of the narrative. Creating knowledge through the narrative mode is challenging only if there is an expectation that the end-product will provide some kind of truth. Your imagination also needs to be up to the challenge of thinking laterally to fill in gaps of empirical data and extrapolation with plausible narratives at the scale of individual events, actors, places.

The intentions of sensorially reconstituted archaeology

Annie

The intention of a sensorially reconstituted archaeology is not to represent (describe) a plausible past but to evoke action and understanding (communication, dialogue, discussion) about possible pasts. This requires a shift in the way we conceive of our scholarly products. Rather than seeing archaeological evidence as representations of past sensory experiences and our scholarly products as recreations or re-representations, we might think of both sensory practice and the media it produces as evocations (see also Hamilakis, 2014, pp.12–13). This affects every stage of research: the questions we can reasonably ask, the methods we deem up to the task of answering them, and modes in which we deliver our findings.

Anthropologists and a few archaeologists have begun exploring the potentials of evocation through multimedia formats (McGonigal, 2011, p.490; Pearson and Shanks, 2001; Westin et al., 2015). In *Doing Sensory Ethnography*, Sarah Pink discusses using media forms not as re-creations or representations of exact sensory experience but as invitations to see/feel/listen in 'particular embodied ways' (Pink, 2009, p.143) and to produce 'routes, connections, and intimacies' (Pink, 2009, p.147). The idea is not to extract the data of experience from interlocutors (in our case materiality) and make an exact replica which others can fully and unproblematically inhabit. This would be impossible, as we recognize the cultural and temporal contingencies of sensory experiences on both individual and cultural scales. And yet somehow archaeology has remained trapped by a concern to represent rather than evoke, to prove rather than explore. Moreover, thinking of the outcome of sensorially reconstituted archaeological practice in this way redirects our work from the 'problems' of imaginative research (those of intentionality and universality).

Enacting as a sensorially-aware archaeologist

If we aim to evoke, rather than represent, sensory experience, we need practices that draw archaeologists, invested communities and descendants, and the varied audiences for archaeological work into experiential relationships with sensorial questions. It is not enough to just do sensory archaeologies, we must *enact* them (cf. Ingold, 2000). Pink reminds us that sensory methods are not

> somehow immune to the requirements and rigour of other social scientific endeavors: the method must still serve the research question … [and] best enable the researcher to explore the themes and issues and acquire the understanding that she or he is seeking …
>
> *(Pink, 2009, p.49)*

By paying attention to sensoriality our research questions morph, new opportunities arise, and so our methods shift alongside. While there is no single recipe for sensorially reconstituted archaeologies, there is the possibility of a toolkit that addresses the centrality of the senses in knowledge production, the multisensoriality of human experience, and the cultural and temporal variety of knowing.

Ruth

How do we collect archaeological data in a way that avoids making 'the sensory' an epiphenomenon? By using our imaginations and sensorial awareness we can focus our attention on a

subject for investigation that, even though it may not be explicitly about sensorial experience or perception, will nevertheless evoke a sensorial awareness in our audience and ourselves. We suggest drawing on attention-based practices in different parts of our workflow. Emphasizing multiple forms of awareness in both field- and museum-based archaeology expands the base of what 'counts' as archaeological evidence. Field notes and personal accounts kept during fieldwork are part of a long tradition of this, but formalizing the actual practices of multisensorial attention is crucial to shifting the frame of reference away from representing to evoking the sensory.

Annie

This is not archaeology as usual, nor is it what so far has been regarded as the methods of sensory archaeology. When thinking about methods for sensorial archaeologies, we do *not* have to start from scratch. The conventional activities of archaeology are implicitly sensorial, though not necessarily explicitly oriented towards a sensorial experience or outcome. We need to notice where we are already engaging with the senses and then fold in practices from other disciplines which amplify or engage the connections to the sensory that archaeological material provides.

Getting started

Annie

Sensoriality can be at play from the beginning of sensorially reconstituted archaeology. Where a research project 'begins' is an existential musing for another day, so for the time being we'll consider the initial conception of a research question and project design. Sensoriality is ever-present in the practices associated with the initial development of a project—background and archival research; investigation of museum collections, grey literature, and regional/topical archaeological studies; preliminary site visits and conversations with collaborators and stakeholders.

Existing explicit 'sensory' projects clearly make 'the senses' central to research questions, but this is not the same as incorporating sensoriality into the practice of research development. Kent Lightfoot and I designed a research plan exploring different scales at which Catholic Missionization affected Native Californians. The idea began with a passage from a Franciscan friar, Francisco Palóu, who wrote in the mid-eighteenth century of the perceived importance of the spatial and sensory aspects of enculturation:

> They [Native Californians] can be conquered first only by their interest in being fed and clothed, and afterwards they gradually acquire the knowledge of what is spiritually good and evil.... If the Indians did not live in a town within hearing of the mission bell, but rather in their villages after the fashion of their pagan days, naked and hungry, the missionaries would not be able to get them to leave off their vicious pagan practices.
>
> *(Palóu, 1955, p.232)*

Father Palóu's statement could have prompted a 'first-wave' investigation of mission bells, where an ethnohistorical account leads archaeological research in the design, sound, and range of mission bells, full stop. However, the sensorial thinking prompted by Father Palóu's words instead guided the design of the research on the range of control of Spanish Missionization rather than simply the bells themselves (cf. Corbin, 1998).

We developed a survey strategy using three spatial zones of influence: the proximal zone, outlying hinterland, and interspaces of colonial regimes (Danis and Lightfoot, in press;

Lightfoot, 2005). The area of direct control was expanded to include the area within the sound of the mission bells rather than merely the architecture of the Mission quadrangle ('the proximal zone'). The 'outlying hinterland' lies outside the sound of bells; the 'interspaces of colonial regimes' represent interactions beyond. This framework centres sensory experience not as the question (Where/how did the bells sound?) but as an important physical component of colonialism. Future research could include modeling of the reach of historically known bells as a guide for future survey. If centred as a core material reality of life in the past, sensoriality can be mobilized in the investigation of any archaeological context from the conception of the research itself.

Walking

Ruth

> Not only do we walk because we are social beings, we are also social beings because we walk … we tend to forget that the body itself is grounded in movement. Walking is not just what a body does; it is what a body is.
>
> *(Ingold and Vergunst, 2008a, p.2)*

It is rare for archaeologists to reflect on themselves as walkers, let alone on the (pre)historic walkers of their investigations. However, the sensory affordances of walking are multiple intertwining paths of embodiment, social interaction, and affect (Ingold and Vergunst, 2008b; Moretti, 2017; Tringham, 2013). Survey mapping and surface reconnaissance involve laborious walking, bending, and carrying. But are we as archaeologists sensorially aware as we walk? Perhaps only if we are in pain because of sore feet, or lost, or tired of carrying heavy recording devices.

Landscape archaeologists and phenomenologists have tended to dominate sensorial discussions on 'walking' (starting with Tilley, 1994). They have been critiqued for (among other things) their perceived lack of objectivity, ocularcentrism, and essentialism in concluding that a walker's predominantly visual (although more recently expanded to include aural, even haptic (Tilley, 2009) mediation of the surrounding environment, would mirror or be similar to that of any (pre)historic walker.

An expanded application of the phenomenological standpoint, in which the focus on perception by the solitary walker is put into an imagined social group context, could lead archaeologists to broaden the sensory awareness of walking

> to embed our ideas of the social and the symbolic within the immediate day-to-day activities that bind practice and representation, doing, thinking and talking, and to show that everything takes place, in one way or the other, on the move.
>
> *(Ingold and Vergunst, 2008a, p.3)*

Ruth Van Dyke is frustrated by the limitations of such single-walker phenomenological experiences walking through Chaco Canyon, and seeks to expand beyond these limitations by creating imagined narratives in which diverse prehistoric actors experience the same walk differently (Van Dyke, 2013, p.394). She uses her imagined narratives to show how these help to interpret existing data in new ways (p.400). For many of these questions, such as 'Who do I travel with?,' answers will not be found in empirical data but in creating richer imagined narratives; for others, such as 'What route do I follow?,' thinking about a broader range of routes, such as goat paths, can lead to more detailed surface and remote prospection.

56

The *Remediated Places Project* focused on phenomenological walks centred around an awareness of walking and movement, and the lateral thinking and talking and social sensing that occurs in the minds of modern walkers at the 9,000-year-old settlement mound at Çatalhöyük (Tringham et al., 2007).

> We are walking along a dusty path in the summer, one that rises up the mound. How different is this modern path in winter or spring with snow or rain? Currently, we change the path trajectory frequently to prevent erosion. Would they have had, 9,000 years ago, a clearly defined path? Who is walking with you and why? Where did the walking start and why? Are you wearing anything on your feet? Are you (plural) carrying anything? What's going on inside your head(s)? Are you nervous of tripping, because you do that often? And so on … A multitude of unaddressed questions pile themselves up easily none of which are explicitly related to sensorial kinetics of body mobility.
>
> *(Tringham, 2012b, p.540)*

In this project, we could have embraced a sensorially reconstituted archaeology by considering in more detail how to enmesh the walking experience across the mound and outside the mound with these questions that highlight the social and affective context of the walk. But in our case, as most other similar experimental ideas on sensorially aware archaeology, they were never addressed beyond a mention in an article-length long-form text (Tringham, 2012b; 2013).

Further experimental walking projects can be found at: Witmore (2004), Bender et al. (2007), and Sørensen (2015).

Digging and touching

Ruth

As Jo Day (2013b, p.21) has pointed out, excavation is inherently a multisensory experience for archaeologists, through touching, tasting, smelling tangible materials, and earth; and through reliance on sound and sight to recognize differences and patterns in these. I have found it very rare that single-sensory (let alone multisensory) experience has been incorporated intentionally into the practice of excavation. Robin Skeates, for example, has mentioned that in the excavations of the Seulo Caves Project (Sardinia) he attempted to measure light levels with a light meter, and, at the same time (more successfully and usefully) recorded the team members' experiences and perceptions of the caves during the excavation process (Skeates, 2016, p.40). By contrast, there are many examples of excavated materials (ceramics, etc.) being the subject of sensorial investigation as an epiphenomenon of excavation (MacGregor, 1999). Unlike Day, I don't think this situation will change with the development of futuristic technologies that allow us to consciously enhance multisensorial experience (Day, 2013b, p.21); it requires a change in sensorial awareness throughout the excavation process as well as a change in the research purposes of excavation.

Many excavations are beginning to incorporate 3-D recording techniques to capture the excavation process for archaeologists to gain immediate access to the three-dimensional visual experience of what they have just destroyed (Berggren et al., 2015; Opitz and Johnson, 2015; Lercari et al., 2017); this can be valuable information, but cannot replace the full multisensorial experience that includes touch and movement.

The renewed excavations at Çatalhöyük from 1995 were 'experimental' in a way that encouraged sensorial awareness, even if multisensorial experience was not explicitly acknowledged.

The combination at Çatalhöyük of 'reflexive methodology' and single context excavation strategy set up the conditions for a sensorially aware archaeology (Hodder, 1997; 2000). It included subjectively recording the ambiguities and uncertainties of the excavator in diaries and dialogs; recognizing that observations are interpretive; and paying attention to the specifics of the formation of the archaeological remains. Focusing on the individual life trajectories of prehistoric people, places, and things, also brought it into the scale of interpretation at which a sensorially reconstituted archaeology could conceivably work. This project was certainly not a model of sensorially reconstituted archaeological practice. More systematic (rather than anecdotal) team-wide observations on the rhythms, taskscapes, and movements of the workflow during the excavation seasons, of the kind I extracted in my 'Sensing the place of Çatalhöyük and Building 3' chapter (which I wrote at least four years after the end of excavation of the BACH area at Çatalhöyük) could have brought it closer to archaeology with the senses (Tringham, 2012b).

Measuring

Annie

Recognizing the sensorial affordances of measurement practices themselves harkens back to high-school science classes and learning about measurement error based on the limits of human vision and man-made instrumentation. In archaeology, measurement practices should be seen as sensorially entangled given their primary function in archaeologists' bodily relation to the materials we interpret. Early sensory archaeologies have given much attention to how one might actually produce sensory data through new methods of measurement, especially archaeoacoustics (e.g. Scarre and Lawson, 2006). Studies of light and vision, colour, temperature, kinesthesia (movement) could also draw on quantitative methods from perceptive and physical sciences (Underhill, 2014; Ashley, 2012; Papadopoulos et al., 2015).

Quantifying sensory phenomena has been especially attractive to archaeologists as it would appear to require the least amount of change in existing frameworks of analysis. However, forms of measurement drawn from other disciplines that provide new ways of experiencing and interpreting the sensory qualities of landscapes, places, artefacts, and assemblages need to be used critically.

Sound in particular has seen some of the most innovative uses of interdisciplinary measurement techniques to imagine past worlds (most recently Kolar, 2013; 2017; Kolar et al., 2010; Scullin, 2015). Much time has been spent quantifying sound in terms of modern scientific categories (waves, echoes, reverberation, etc.) but, as Steve Mills has pointed out:

> it is nowhere implied that past people understood sound in terms of waves or any of the other concepts associated with modern acoustics. … The application of … archaeoacoustics enable the generation of specific kinds of evidence which can be used, alongside other forms of evidence, to form the basis of interpretation of past people's understanding and use of sound.
>
> *(Mills, 2014, p. 81)*

The form of measurement is not intended to stand in for an interpretive framework.

Mills has developed the concept of 'auditory archaeology' as an approach that draws methods from perceptive psychology, acoustic analysis, GIS, and heritage studies to investigate, 'the role of everyday sounds and hearing in archaeology and landscape contexts that are diverse in space and time' (Mills, 2014, p.75). He employs the methods of 'auditory scene analysis' (Bregman, 1994)

and ecological sound classification (Krause, 2002) to analyze contemporary field recordings into categories in order to relate, 'the body, auditory system, sound, and the person's surroundings' (Mills, 2014, p.89). In his Romanian research, this analysis shows a correlation between changes in ecology and changes in auditory experience, which he interprets to show the significance of different types of sounds in the past. The practice of measurement is certainly compelling in this case: convincing the archaeologist with spectrograms, decibel charts, and sound–maps that sonic experience is not just an ephemeral phenomenon. However, the imaginative aspects of discussing the meaning of 'monumental' sound or the importance of animals to everyday experience are less convincing because they are not connected back to sound—the media of the measurement itself.

Sensorially reconstituted methods need to incorporate both the sensory experience of the measurement itself and the affordances of measurement practices from a range of disciplines that amplify particular sensory experiences in order to compellingly evoke the questions asked (if not answered).

For more experimental research on measurement, especially for another approach integrating psychoacoustic testing in architectural environments, see Kolar et al. (2010); Kolar (2013); and Michael Ashley's vision testing of archaeologists in the field (Ashley, 2012).

Recording and documenting

Ruth

Documentation and recording is an important part of the archaeological workflow; if what we do is not documented in some fashion, then it will all be for nothing, however powerful we think our memories are. Archaeological projects that have spanned the analog–digital transition are especially sensitive to many of its implications, but archaeologists have not often explicated those that impact sensorial archaeologies (Morgan, 2016; Tringham, 2012a; Tringham and Ashley, 2012). In fact technological issues of the intermediary instruments strongly affect our sensorial awareness during documentation or recording, whether it is the physicality (and smell) of film and cassettes versus a rigid feel of an SD Card, holding pencil and paper versus touching the glass of an iPad, or switching eye from drawing board to the featured ground versus setting up photogrammetry targets (Bolter and Grusin, 1999; Boudreault-Fournier, 2017; Pink, 2009).

In the BACH project, we acted contrary to the main Çatalhöyük team's practice in several ways. For example, the daily video record of the BACH project and our rich photographic record of people working and talking resulted in our ability to share a sensorially rich experience of the seven years of the project (Tringham and Ashley, 2012). In addition, we restricted audio-visual (including mapping) recording to individuals who specialized in those skills, in order to standardize quality and promote efficiency. This created a skill and experience disconnect between excavators and documenters. In hindsight, it would have promoted a more sensorially aware documentation if each excavator had followed the whole workflow themselves, even at the risk of quality loss.

Two very recent developments in the Çatalhöyük project provide food for further thought; the first is to provide local Turkish participants in the project with cameras to 'free film' the project as seen through their eyes (Morgan, 2016); the second is the 3-D VR documentation of the excavation process (Berggren et al., 2015); we can grasp easily how the first will contribute to sensorial archaeologies; the second, in spite of its rich visual effect, is limited in sensorial affect if the user is invited only to 'walk' through an empty reconstructed building with no stimulus for her curiosity. By contrast, the modelling at Çatalhöyük is geared towards encouraging

interpretation and engagement through linking to the basis of the model in the documentation of the excavation process. The authors refer to it as '*embodied archaeological interpretation*, where a 3D virtual simulation environment for archaeological analysis and visualization creates spatial affordances, otherwise invisible or non-identifiable' (Lercari et al., 2017, p.11).

Whichever the subject and medium of documentation, it is essential to connect the media with metadata (embedded, in a database, or in linked spreadsheets) that provides the context for the media production including the sensorial awareness of its producer. Who is the person documenting, how do they feel (alert, bored, uncomfortable, excited) today, where is today in the rhythm of project activities, what is the weather? Do we pay attention to the specifics of the entire scene as we document a specific feature? Who is watching/recording me as I record? Why are we creating this document, what are our expectations of it, how do we want it to be used? Such metadata needs to be built in during the preparation of input forms, database fields, photologs, etc.

Other examples: *The Other Acropolis Project* (Hamilakis and Ifantidis, 2015); *Emancipatory Digital Archaeology* (Morgan, 2012; Morgan et al., 2015); Kate McLean's (2017) *Sensory Maps*.

Looking, seeing, observing, analyzing

Annie

One of the main justifications of sensorial research has been a recognition of the ocularcentrism of the discipline (and Western science and philosophy in general). While this is an important critique, archaeology does by and large involve activities conventionally considered 'visual.' Since even so-called visual practices are deep-down multisensorial, sensorially reconstituted methods for archaeology will take seriously the embodied practices of looking, seeing, and observing as important engagements with the material world.

Many current archaeologies of the senses use activities of vision to reconsider archaeological material with an eye (pun-intended) towards un-examined sensory aspects. Jo Day, for example, reinterprets flower-shaped vases to include the sensory experience of smell in both their use and symbolic meaning (Day, 2013a). She does so, however, not by smelling the vases, but by considering how the visual image of the vases themselves relates to the contents held within them, referencing a dynamic sense-memory for users in the past. Her work is further sensorially enhanced by the transparency with which she describes her research process.

In archaeological work we see many things and we observe what we deem significant. How do our practices of looking become practices of observation that are susceptible to sensorial thinking? To begin, we can consider the media practices already part of the archaeological tool kit, like photography and illustration, as practices which create particular 'ways of looking' and these can be integrated with media forms that highlight other sensory capacities (like sound recording, video, artefact analysis through touch, etc.) in multi-modal productions. Examples exploring sensory landscapes (Llobera, 2007), photographic collage, and video montage (Bailey, 2014a; 2015; Hamilakis et al., 2009; Witmore, 2004) are starting points to take seriously observational practices as sensorially informed activities. This necessarily overlaps with many other enactions of sensoriality, as mediated looking ultimately becomes documentation, pattern recognition, and analysis.

Michael Ashley took measurements and ran tests on the vision of a sample of the Çatalhöyük team participants in different field situations. His chapter (Ashley, 2012) in *Last House on the Hill* is based in vision sciences but also in long experience as a photographer and a background in sensorial (second wave) archaeology.

Other examples: Classen (2006); Foster (2013); Pursell (2013); Weismantel (2013).

Presenting and performing

Annie

Another practice that archaeologists regularly engage in is presenting ideas, narratives, and data. Formally, this manifests through lectures, usually with digital images on slides, to a number of audiences, usually scholarly but also different publics. Informally, 'presenting' permeates all stages of research and fieldwork: teaching students in and out of the field, interacting with descendant communities and stakeholders, and processing information in the field with a team of excavators, surveyors, or analysts. This range of activities gives space for various audiences to create meaning out of archaeological material, use their imaginations, and encounter a scaffolding of information out of which to produce new knowledge.

Since a sensorially reconstituted approach demands we not only consider the sensorial aspects of these practices but that we also take advantage of the opportunities presented to evoke action rather than passively represent, it may be better to think of this suite of activities as performance. We can look further afield to disciplines which interrogate the nature of performance and its sensorial affordances in order to expand our toolkit from PowerPoint and constrained presentation language. (And never again give a presentation about sound without sound!) Connecting fields like performance studies and installation art practices to archaeology should not be such a radical idea, as many archaeologists have incorporated creative work at the periphery of their research for years (Bender et al., 2000; Russell and Cochrane, 2014; Hamilakis et al., 2001; Hamilakis, 2007; Renfrew, 2003).

Performance theorists often consider creative works that structure attention through the concept of poiesis, the Greek idea of 'making':

> Performance artists … appreciate that poiesis requires integrating knowledges from multiple areas of expertise (specialized knowledge), the full scope of the sense (embodied knowledge), critique (politically engaged conceptual knowledge), and pragmatic knowledge (know-how).
>
> *(Hamera, 2011)*

Hamera, a performance ethnographer, also writes that 'to use performance as a method of inquiry, the researcher gives focused attention to the denotative, sensory elements of the event: how it looks, sounds, smells, shifts over time' (Hamera, 2011, p.319). Sensorially reconstituted archaeologists can take advantage of the platforms for performance and presentation in this mode of sensorial attention and multiple forms of knowledge not only as an engaging didactic form (Giannachi et al., 2012).

As part of their landscape study of Leskernick Hill, UK, Bender, Hamilton, and Tilley incorporated creative methods that blur the line between performance and installation. Their interest in overall intervisibility between houses and neighbourhood clusters, that are visible now only through rock alignments and clearings, led them to use a wood-frame doorway and high visibility pin flags to document intervisibility. A recognition of the importance of particular standing stones in the construction of houses and the general landscape prompted an exploration in marking through cling-wrap, paint, and various substances. Bender et al. are explicit about how they did not intend initially to create art installations as part of their project, but the ideas grew out of 'a series of practical and methodological problems' posed by the specificity of the site and the phenomenological nature of their questions (Bender et al., 2007, p.311).

Their experiments, rather than attempting to represent exactly phenomenological experience of the hill in the past, evoke various impulses—the familiarity of rocks, the limiting of vast

views through doorways, the visual interconnectedness of living spaces—in an imaginative way that is in their own words 'as much about process as production' (Bender et al., 2007, p.312). The creative performance and installation of works in the Leskernick landscape serve not to represent some already formed idea of the archaeologist to another audience, but as a mode of investigation that opens up new lines of inquiry directly related to place, and as such to the senses. This is a key component in thinking about the performative aspect of sensorial reconstituted archaeologies.

Other examples: Praetzellis and Praetzellis (2015), Bailey (2014b), Pearson and Shanks (2001).

The end of the workflow: publication and afterlives

Annie

As we said in our introduction, sensorially reconstituted archaeologies need to trace routes, make connections, and forge intimacies between the material and sensations of the past and the experiences and concerns of the present. The products or representations of the research which are conventionally separated by a sterile distance from the actual engagement with material culture cannot be so distinctly removed from the context of their production. Recording sound and video, documenting both contemporary and past sensory experience in words and images, walking and experiencing landscapes, are methods of engagement and methods of evocation, are process and product, research and conclusion. They are end products, but not exclusively reserved for 'the end.'

Ruth

Here we point to end-products that enable sensorially reconstituted archaeologies to be shared beyond the initial research team and beyond the professional audience of archaeologists. These 'afterlives' are evocations sourced in the research and might be realized long after the project itself has ended (but hopefully not forgotten).

Writing

Writing long-form linear text remains the privileged form in which our research is shared.

Rosemary Joyce has pointed out that academic records do not reflect the dialogic nature of archaeological knowledge production, which is in fact the discipline's strength (Joyce, 2002, p.3). The process of reshaping an archaeological narrative by multiple participants is (unconsciously or deliberately) made opaque. Individuals disappear in our impersonal academic accounts. Writing that preserves the dialogic nature of collaborative writing (this chapter, for example) is not inherently multisensorial writing. As we discuss here, fragmentary, dialogic, and imaginative narratives are methods of writing which can open up new pathways for sensorially motivated writing forms.

Ruth

The demise (or at least future) of long-form textual narratives has been predicted and discussed in many wonderful books (Nunberg, 1996; Douglas, 2001). While still acknowledging the strength of linear sequential formats in terms of readability and knowledge transferral, alternatives like non-linear narratives created by fragmentary nodes with multiple paths that can be read in multiple ways have been argued to open up a more democratized production of

knowledge. Such non-linear narratives have the potential to be less finite, more open-ended, blurring the line between authors and readers (Pluciennik, 2015). Kathleen Stewart, for example, creates a narrative of non-linear textual fragments in her printed book *Ordinary Affects* (Stewart, 2007). By using 'fragmentary, partial, incomplete moments. … Stewart avoids overt theorization of these moments and lives, instead allowing the stories, as "felt theories" to impress upon the reader' (Elliott, 2017, p.35). There is no explication of what is happening; the reader is invited to make sense of the 'vignettes.'

Annie

I agree with sensorial anthropologist Sarah Pink's skepticism that long-form text will ever be replaced. However, there are experimental alternatives to long-form linear narratives that address the challenges of sharing the full dialogic nature of archaeological research (Pink, 2009, p.135). Dialogues themselves can be published, such as the email discussion between Rosemary Joyce and Robert Preucel (Joyce, 2002, p.18); the docudrama with imagined conversations by real people created by Adrian Praetzellis and Mary Praetzellis (2015, p.130); or the conversation between Ian Bapty's inner- and outer-self (Bapty, 1990). It is not the lengthy nature of long-form archaeological writing but rather the entrenched generic conventions of an 'archaeological monograph' that creates barriers to sensorial communication. The separation of 'personal narrative' and 'archaeological analysis' is incommensurate with sensorial thinking. In being aware of and sharing these important events in the story of the investigation, we begin to share the dynamics of doing sensorially reconstituted archaeologies.

Ruth

Other experimental narratives in the name of sensorial archaeologies are those that aim to reveal the sensorial experience of the past through imagined people and situations. Most creative fiction in archaeology is neither experimental nor intentionally about sensorial experience. The creative (non-)fiction that concerns us are those that are inserted into a master non-fiction long-form narrative to provide an expression of an imagined sensorial past (Edmonds, 1999; Hamilakis, 2013a; Skeates, 2010; Spector, 1993; Tringham, 1991; 1994; 1995; Van Dyke, 2013). Their authors are aware of the experimental and risqué nature of such fictional narratives, but are rarely so experimental as to allow their introduction into the master narrative to forego a certain amount of didactic explanation and explication that the imagined narrative is based in empirical archaeological data or an announcement that now we are entering the realm of fiction ('let us now imagine …'). I have pointed to the marked difference between Hamilakis' (2013) evocative lyrical personal vignettes that begin some of his chapters and the—by contrast—pedestrian nature of his fictional sensorial Minoan lifeworlds (Tringham, 2015c, p.208).

It is true that, as writers of non-fiction, we need by some means to be able to signal (make transparent) the process by which our fictions are created out of empirical observations (Pollock, 2015). But there are many ways—still untouched for the most part by archaeologists—that the links can be signalled in a more sensorially affective manner, taking advantage of, for example, the blending and linking nature of knowledge production enabled by digital technology, such as interactive narratives that have been around since the mid-1990s (Tringham, 2015a; 2015b; Douglas, 2000). Although it goes against the good advice of a professional journalist (Pollock, 2015, pp.284–285), since it creates for the reader a blurred boundary between invention and authenticity, I have long been in favour of making entry into the fictional (pre)historic world a surprise, to be ambiguous, a gradual process from

uncertainty to partial discovery, and, above all, to be evocative. The surprise of the unexpected evokes a strong affective and sensorial appreciation of the scene. In my first fictional insertion into a text, I was seeking a similar evocation through surprise (Tringham, 1991, p.124). More recently, in an attempt to respond to criticism of confusion and ambiguity caused by such 'surprises,' I have deliberately linked fictional fragments with fragments of empirical observations, so that the effect is an elusive network of linked fragments with no fixed navigational paths rather than a surprise (Tringham, 2015a; 2015b).

Other experimental formats: graphic novels/comics: Swogger (2005), De Boer (2005), and see all in same issue of the SAA Archaeological Record; discussion on experimental narratives in archaeology in the edited volume *Subjects and Narratives* (Van Dyke and Bernbeck, 2015).

Photographic narratives and other still imagery

Ruth

Being a sensorially aware archaeologist affects the ways in which photography is used as a documentary tool, but what you do with the photographs afterwards is as important an aspect. Photographs are not static representations, but evocations towards memory and other actions and their creative use should support their sensorial affordances.

John Berger (1972) situates photographs in the context of memory that resonates strongly with sensorially reconstituted archaeology. He sees photographs as triggers for memories that are non-linear, with many different paths leading to the remembered event. An image thus becomes much more than a representation; it evokes many associated data and memories, and itself leads to other context-rich memories. I adapted Berger's idea of the radial paths of memory in a project about my professional experience of forgetting and remembering the analog–digital transition in archaeology (Tringham, 2010). I found that creating image contexts like Figure 4.1 produced a 'thick' non-linear multisensorial narrative that unintentionally might have been appropriate to a sensorially reconstituted archaeology.

Annie

Yannis Hamilakis and Fotis Ifantidis describe their Camera Kalaureia project (2016) as an archaeological photo-ethnography in which they, 'decided to engage seriously with photography, not as a documentary process but as another cultural field, another ground of contact, communication and exchange, with important ethnographic, sensorial, and ontological implications' (Hamilakis and Ifantidis, 2016, p.3). Like Berger they put emphasis on the details of the specific context of the photograph, and, like Kathleen Stewart, do not offer explanation; the texts that accompany each image evoke memory and sensorial affect that accumulates throughout the work, but do not represent or inform.

Ruth

These are all examples of photographic narratives published on paper. The ability to manipulate images digitally can create images with a powerful sensorial affect, such as Alice Watterson (2015) with her imagined recreations, or the potential of re-photography to blend the same point of view on one image (Figure 4.2; Plate1a; Plate1b). Nevertheless, they are still images; their sensorial affect depends on how they are situated, presented, or displayed (through juxtaposition with other images or text); they can be enhanced (or not) by the addition of background sound; and by proximity to and choice of subject (Morgan, 2016).
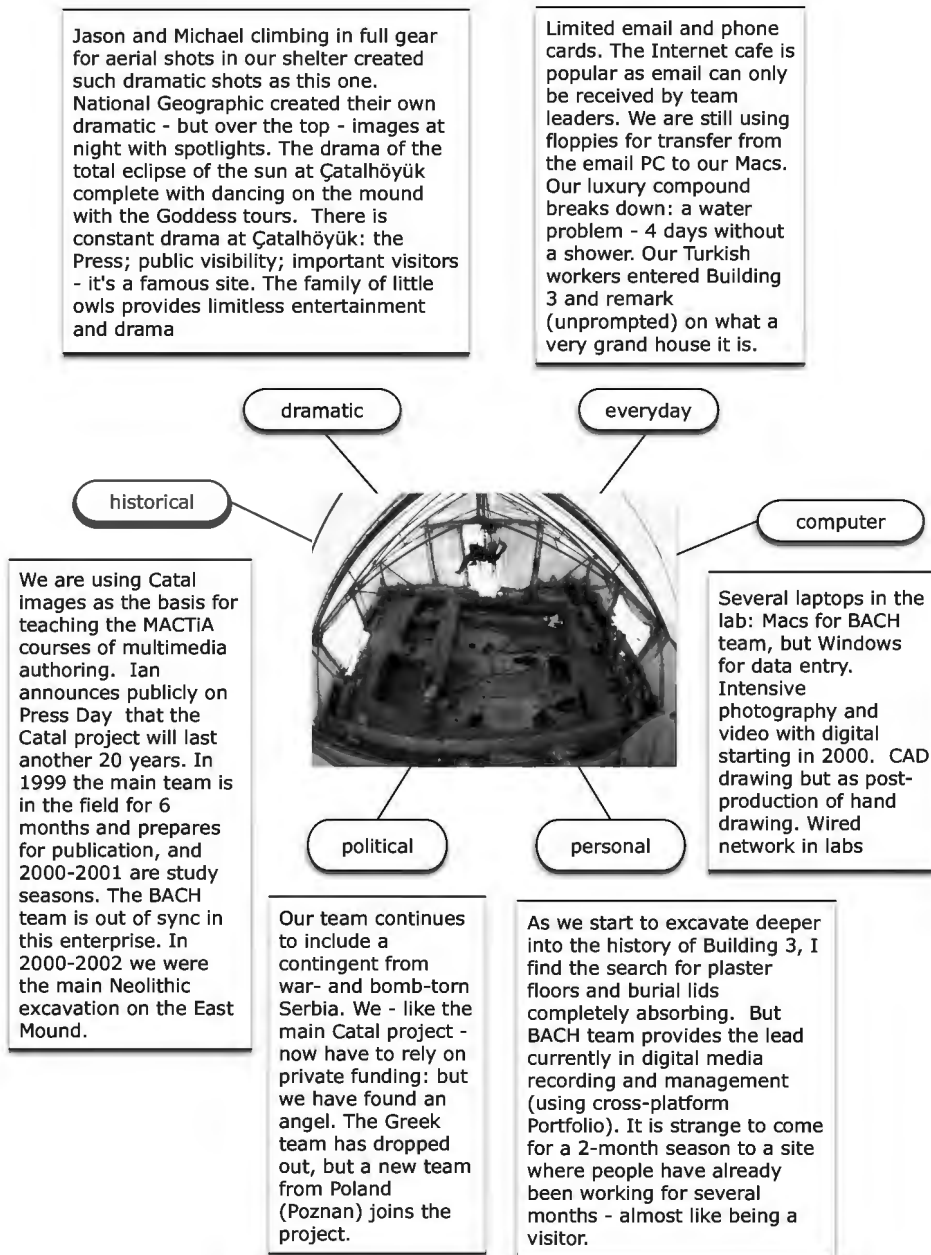
64

Jason and Michael climbing in full gear for aerial shots in our shelter created such dramatic shots as this one. National Geographic created their own dramatic - but over the top - images at night with spotlights. The drama of the total eclipse of the sun at Çatalhöyük complete with dancing on the mound with the Goddess tours. There is constant drama at Çatalhöyük: the Press; public visibility; important visitors - it's a famous site. The family of little owls provides limitless entertainment and drama

Limited email and phone cards. The Internet cafe is popular as email can only be received by team leaders. We are still using floppies for transfer from the email PC to our Macs. Our luxury compound breaks down: a water problem - 4 days without a shower. Our Turkish workers entered Building 3 and remark (unprompted) on what a very grand house it is.

dramatic

everyday

historical

computer

We are using Catal images as the basis for teaching the MACTiA courses of multimedia authoring. Ian announces publicly on Press Day that the Catal project will last another 20 years. In 1999 the main team is in the field for 6 months and prepares for publication, and 2000-2001 are study seasons. The BACH team is out of sync in this enterprise. In 2000-2002 we were the main Neolithic excavation on the East Mound.

Several laptops in the lab: Macs for BACH team, but Windows for data entry. Intensive photography and video with digital starting in 2000. CAD drawing but as post-production of hand drawing. Wired network in labs

political

personal

Our team continues to include a contingent from war- and bomb-torn Serbia. We - like the main Catal project - now have to rely on private funding: but we have found an angel. The Greek team has dropped out, but a new team from Poland (Poznan) joins the project.

As we start to excavate deeper into the history of Building 3, I find the search for plaster floors and burial lids completely absorbing. But BACH team provides the lead currently in digital media recording and management (using cross-platform Portfolio). It is strange to come for a 2-month season to a site where people have already been working for several months - almost like being a visitor.

Figure 4.1 Radial textual memories of an image from Çatalhöyük, Turkey. Jason Quinlan swings from the trapeze preparing to photograph the BACH excavation in 2001; this photo was recorded by Michael Ashley who is suspended even higher. Photo © Çatalhöyük Research Project. The recontextualization of the photo was originally created by Ruth Tringham for publication in Tringham, 2010, fig. 14a.

Figure 4.2 Ghosts of BACH in the new North Shelter at Çatalhöyük. In this mashup (not a true example of re-photography), I have made the current North shelter at Çatalhöyük greyscale, while keeping the BACH excavation—which is virtually invisible now—and its forgotten excavators brightly coloured (see Plate 1a) to evoke the message of 'how quickly we forget.' Masher: © Ruth Tringham; Image: © Çatalhöyük Research Project; Photographer: Jason Quinlan (2008), Michael Ashley (1998). Created originally for TAG 2011 (Berkeley, CA).

Other experimental examples: Mark Edmonds and Rose Ferraby (2013) *Stonework*; Jesse Stephen and Colleen Morgan (2014) *Faces of Archaeology*; Douglass Bailey (2013; 2015) Collages; Ian Russell and Andrew Cochrane (2014), Alice Watterson et al. (2014) *Digital Dwelling*.

Film and video

Ruth

Much has been written about the power of different genres of moving image narratives to evoke a multisensorial affect, and a sensorially aware archaeologist would do well to study this literature and the films themselves (Boudreault-Fournier, 2017; Pink, 2006; 2009, p.97; Hamilakis, 2013a, pp.61–65). Filmic styles that promote imagination during both their creation and viewing, reflexive (dialogue or self-musings), impressionistic, or verité styles would be more appropriate to sensorially reconstituted archaeologies than the didactic expository 'talking head' documentary style (Babash and Taylor, 1997, p.14). Editing software can be used to craft surprising, playful, and sensorially rich evocative moving imagery out of video and audio clips by creative juxtapositioning techniques (e.g. montage), by interposing animations, still images, found footage clips, and audio clips, or by using special effects (Boudreault-Fournier, 2017, p.70).

In the Çatalhöyük project video-recording was situated at the centre of documentation of the archaeological process. According to Ian Hodder, such practices 'lead to greater information

flow about interpretation … and a greater readiness to submit one's own assumptions to scrutiny' (Hodder, 1997). Video-recording in the BACH area was more informal and more detailed than other areas of Çatalhöyük. The daily video record of the excavation is an archive in a database, but it can be edited and presented as a multimodal narrative to evoke a powerful multisensorial experience of archaeological field practice (Tringham and Ashley, 2012; Morgan, 2014).[1]

A different literature addresses the challenge of moving imagery to evoke a (pre)historic world that is dynamic and full of people (Holtorf, 2007; Piccini, 2007; Schablitsky, 2007). Very few reenactments of past people (in TV and cinema docudramas) do this successfully in full-length or even vignette-length movies. As with expository documentary videos, the preferred style is to let the audience know what is going on through the medium of words spoken by the (pre)historic protagonists; this is a style that leaves little room for the audience to use their imagination or to embrace the ambiguity of the past. Such a style may lead to easy consumption of the past, but it is a past based on sensorial experiences and expectations of modern soap operas. One example of an alternative sensorially rich narrative is the now-defunct TV series *Bonekickers* that juxtaposes modern archaeologists and their interpretations brought ambiguously to life (Bailey et al., 2009). An equally interesting (non-commercial) model of a sensorially aware video is Alice Watterson's self-reflexive, poetic, multilayered digital project, *Digital Dwelling* (Watterson, 2015).[2] It portrays the past of Skara Brae as it is experienced in the present: unfamiliar, emotive, dynamic, and transforming, with space left for the imagination of the viewer to create diverse meanings of the experience of moving awkwardly (not smoothly flying) through the narrow spaces of Skara Brae.

Other experimental examples: Bailey and Simpkin (2015),[3] Ruth Tringham (2010) *Back in My Hometown* (music video),[4] Colleen Morgan (2008) *Colors of Çatalhöyük*.[5]

Multimodal narratives

Rosemary Joyce, in conversation with others, has suggested that the dialogic nature of archaeology can best be expressed through digital platforms and technologies that employ multiple modes of sensorial expression—including hypermedia, mixed reality, interactive narratives, video games, virtual worlds, and walking simulators (Joyce and Tringham, 2007; Lopiparo and Joyce, 2003). The fragmentary, non-linear nature of multimodal narratives enables flexible juxtapositioning; its horizontal and vertical navigation and linking create rich possibilities of playful exploration of empirical data with imagined recreations of a kind not possible with the written word alone.

I have not created any other narratives on printed paper since 1995, preferring to create narratives in multi-modal media-rich digital formats that are as appropriate to the aims of evocation of sensorially reconstituted archaeologies as the printed word. A strongly evocative multisensorial effect can be created also by multiple sources of physical media with or without digital media such as multimodal museum exhibits, multimodal performances, alternate reality games, and interpretive walks (Moretti, 2017).

Whether physical, digital, or a combination of both, multimodal products are important means of communicating sensorially reconstituted archaeology to diverse audiences, because they involve active audience/community participation (Pink, 2009, p.152). The user or audience is responsible for their own navigation; they are guided, in the best cases, by gentle scaffolding through a non-linear tangle of small stories (media and textual fragments) and encouraged to train their observational skills and imagination with cues, levels, and rewards. For example, the pilot of the CHESS project at Çatalhöyük takes advantage of mobile communication technology to give visitors an engaging exploration of the excavation areas (Katifori et al., 2016). In

small groups, visitors, each with an iPad containing different content and interpretations, discuss branching narrative trajectories as together they observe the physical remains during their tour of the site.

In mixed reality (augmented reality and augmented virtuality) multimodal environments, elements of the modern physical world are combined with virtual elements. The user is given space for their own creativity, imagination, and participation in their own cultural world and that of the past 'other' simultaneously. The suspension of disbelief is broken, but, far from leading to the user's disengagement, it may actually enhance engagement by creating a richer sensorially aware environment. *Dead Men's Eyes*,[6] currently in development by Stuart Eve, uses Augmented Reality to 'bring the sights, sounds and smells of the past directly into the present – into the very place in which they happened' (Eve, 2012; 2014), the place being Leskernick Hill.

Walking simulators are a multimodal genre that resonates strongly with the recommendations we have been making throughout this chapter, although currently very underused. 'Whereas traditional (video) games rely on linear narratives of the human experience, walking simulators encourage meaningful exploration of rich worlds. They allow users to experience the lives and worlds of others in new and critically informed ways' (Gonzalez-Tennant, 2016). As with the most famous of these, *Gone Girl*, the non-linearity of the narrative and the sense of place are at the heart of the product and draw the user into the experience by evoking empathy, curiosity, play, and resonance.

> More examples: sensory museum displays: Science Museum Minnesota: *Mysteries of Çatalhöyük* (2002);[7] Jorvik Viking Centre (smells, etc.),[8] *Place Hampi* (Kenderdinek et al., 2008); *Virtual worlds*: Second Life*: Okapi Island* (Morgan, 2009);[9] *City of Uruk* (Bogdanovych et al., 2009); Creative Archaeologies.[10]

Archaeologies that evoke sensorial attention and action

In order to 'do' sensorially reconstituted archaeologies we need to recognize the existing sensorial affordances of archaeological practice and draw on other disciplinary practices that allow nuanced exploration and evocation. This begins with personal sensory awareness and extends to the conception, design, and implementation of archaeological research. Acknowledging the centrality of imagination, the multiple scales of experience, and multiple forms of knowledge production are core concepts that should guide the development of our methods. Here we offer the practices of research development, survey, excavation, measurement, documentation, artefact analysis, and presentation as places to start thinking sensorially. The affordances of walking, touching, interacting, hearing, observing, and performing are already embedded in these practices, and the arts, performance studies, media studies, and perception sciences offer methods to amplify the effects of the sensory on our interpretations of the past. Moreover, creative practices in writing, photography, video, and digital and multimodal narratives can be mined for methods of evoking sensory questions.

But why do we need sensory methods at all? We returned again and again to the idea that a sensorially reconstituted approach requires new methods; it requires practices which enact and engage the senses in the present in order to imagine the past; it requires practices that incorporate different forms of knowledge else it risks reifying Western, Cartesian divisions and hierarchies; it requires 'a way of listening … that … disrupts the security of what is known for sure' (Stevenson, 2014, p.2).

In his little-read (!) book Gordon Childe stated (following classic Marxist texts) that knowledge is a system of propositions which are true insofar as they correspond with the external

world. 'The function of knowledge is practical … to furnish a guide to action. The success of the action … is the … test of the truth of the proposition from which (the action) is derived' (Childe, 1956, p.107). We do not deny the value of conventional archaeological practices based in the scientific-logical mode of thought, but these knowledges rarely inspire action of a political nature. The methods of sensorially reconstituted archaeology, however, expand knowledge-production beyond the boundaries of conventional archaeological methods and truly take up the challenge of the revisions called for by the feminist, queer, Indigenous, and postcolonial critique. The inherent ambiguities of sensorial experience need to be framed as an opportunity to develop more rigorous practices in forms of embodied knowledge production and platforms for integrating and learning from descendant and local communities.

The requirement of sensory archaeologies to evoke critical thinking, attention, and action underscores the political implications of the practice that Hamilakis dreamed of:

> not only in bringing into the fore marginalized sensorial regimes and alter-modern archaeologies … but also in enabling, through the exploration of past and present sensorial diversity, the formation of new trans-corporeal socialities. These will be governed by sincere and open affective interactions which can counter the sensorial hierarchy and individualization imposed by the dominant bodily regimes of Western modernity.
>
> *(Hamilakis, 2013a, p.9)*

In this short chapter, we could not offer more than guidelines, which need now to be filled out by many other examples of alternative and experimental practices. Like those authors who have written longer texts about sensorial practice in other disciplines, however, we believe that a precise toolkit does not, and should not exist (Pink, 2009; Elliott and Culhane, 2017). For the 'doing' of sensorially reconstituted archaeologies is a dynamic transforming journey whose destination is always out of reach.

Acknowledgements

Notes

 1 https://lhoth.mukurtu.net/collection/day-day (accessed 4/1/2017)
 2 https://digitaldirtvirtualpasts.wordpress.com/skara-brae/ (accessed 4/1/2017)
 3 http://upcolorado.com/about-us/our-press/item/2712-subjects-and-narratives-in-archaeology-media#chapter-9-video (accessed 4/1/2017)
 4 https://vimeo.com/channels/lasthouseonthehill/12686403 (accessed 4/1/2017)
 5 https://youtu.be/IFN4avWdtkk (accessed 4/1/2017)
 6 www.dead-mens-eyes.org/ (accessed 4/1/2017)
 7 www.smm.org/sites/default/files/public/attachments/catalhoyuk.pdf (accessed 4/1/2017)
 8 www.jorvikvikingcentre.co.uk/about/ (accessed 4/1/2017)
 9 https://youtu.be/ZY_04YY4YRo (accessed 4/1/2017)
10 Creative Archaeologies session at the 22nd Annual Meeting of the European Archaeological Association, Vilnius, August 2016 http://eaavilnius2016.lt/abstract-book-2/ (accessed 4/1/2017)

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