Seven Interventions with the Flatlands: Archaeology and its Modes of Engagement Contributions from the WAC-6 Session, ''Experience, Modes of Engagement, Archaeology''

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ABSTRACT

This volume is the product of the WAC-6 session, ''Experience, Modes of Engagement, Archaeology'', which was part of the conference theme, ''Archaeological Theory? Legacies, Burdens, and Futures.'' The following contributions embrace emergent, analog, and paper-based media and move on from the worn observation that these media can be important tools towards active interventions that demonstrate how they affect practice and theory when employed critically and reflexively. This introduction orients the focus of the volume through a discussion and case study that place theoretical emphasis on experiences documented through multimedia. Important questions are raised throughout concerning: archaeology and digital representation, the creation and destruction of archaeological information, authenticity in representations, the construction of archaeologists' identities, and the non-linearity of archaeological practice. The studies in this volume approach archaeology through the lens of experience and multimedia engagement. In doing so they blend or altogether question the traditionally divided realms of theory and practice. Consequently, these contributions work with the interrelated agendas of the present between media ecologies and archaeology, and the changing pace and character of archaeology in the 21st century.

Résumé: Ce volume est le fruit de la session WAC-6, «Expérience, Modes d'Engagement, Archéologie», qui faisait partie du thème de conférence, «Théorie Archéologique? Héritages, Fardeaux et Avenirs.» Les articles suivants comprennent les médias émergents, analogiques, sur supports papier et progressent depuis l'observation désuète que ces médias peuvent

être des outils importants vers des interventions actives qui démontrent comment ils peuvent affecter la pratique et la théorie lorsqu'ils sont utilisés d'une manière critique et réfléchie. Cette introduction oriente l'objet du volume dans une discussion et une étude de cas qui placent l'accent théorique sur des expériences documentées grâce aux multimédias. D'importantes questions sont évoquées pour tout ce qui concerne : l'archéologie et la représentation numérique, la création et la destruction de l'information archéologique, l'authenticité des représentations, la construction des identités d'archéologues, ainsi que la non linéarité de la pratique archéologique. Dans ce volume les études abordent l'archéologie au travers de la lentille de l'expérience et de l'engagement multimédia. De cette manière elles mélangent, ou tout compte fait, interrogent le domaine traditionnellement divisé de la théorie et de la pratique. Par conséquent, ces articles fonctionnent avec les programmes interdépendants du moment entre les médias écologie et archéologie, et le changement de rythme et de caractère de l'archéologie au 21[ieme] siècle.

Resumen: El presente volumen es producto de la sesión WAC-6 «Experiencia, formas de compromiso y arqueologia», que forma parte de la conferencia sobre el tema « ¿Teoría arqueológica? Legados, cargas y futuros». Las siguientes aportaciones aprovechan los soportes emergentes, analógicos y basados en papel, y van más allá de la manida observación de que estos soportes pueden ser importantes herramientas para las intervenciones activas que demuestran cómo afectan a la práctica y a la teoría cuando se emplean de forma crítica y reflexiva. Esta introducción da paso a un enfoque del volumen a través de un debate y un estudio de caso que pone el énfasis teórico en experiencias documentadas mediante multimedia. Por doquier surgen cuestiones importantes relacionadas con la arqueología y la representación digital, la creación y la destrucción de la información arqueológica, la autenticidad en las representaciones, la construcción de las identidades arqueólogas y la no linearidad de la práctica arqueológica. Los estudios de este volumen abordan la arqueología desde la óptica de la experiencia y del compromiso multimedia. Con ello, mezclan o cuestionan los campos tradicionalmente divididos de la teoría y la práctica. En consecuencia, estas aportaciones funcionan con programas relacionados del presente entre la ecología mediática y la arqueología, y el ritmo y el carácter cambiante de la arqueología en el siglo XXI.

Introduction

Greene Farm, Warwick, Rhode Island, USA
Tuesday morning, 24 June 2008

An enthusiastic field crew works diligently to excavate the remains of an early 17th-century colonial settlement. The sun is hot, the stratigraphy is complicated, the assemblage is rich, and the surfaces of the units are dampening from the encroaching water table. Steady rhythms of shoveling and sieving are punctuated by frequent interludes as the excavators pause to record their observations in field logs, photograph new strata, draw important features, sort recovered artifacts, or debate their next steps. The excavators faithfully and comfortably rely upon these familiar devices in structuring and organizing information during these critical transitional moments.

Meanwhile, the project archaeologist turns on the video camera with the intention of capturing the excavations in progress and producing a record; one that will complement the paper-based and photographic archive, and one that will orient colleagues and other audiences to the project at Greene Farm. Through the camera's lens she views the physical landscape of the archaeological site in the foreground and middleground, the excavations in progress, the colors and textures of the soil, layers of clearly defined strata, artifacts in the sidewalls, and the buzz of conversations. She takes in the background as she moves around the site, the views of expansive, fresh-cut hayfields, the surrounding waterways, a bright blue sky, the impressive historical mansion. The serene landscape is broken by the deafening roar of a low-flying airplane *en route* to the nearby airport. The video records a panoramic vista accompanied by a suite of background noises. This is an assembly of relations afforded by screen and microphone that cannot be conveyed or reproduced in the written narratives or archival photographs.

Cacophonies *and* symphonies, these mixtures of activities, people, noises, and materials are glaring reminders of the complexities involved in understanding archaeological landscapes, documenting experiences, and (re)combining various modes of engagement in archaeological practice. The movements, timing, and the co-creation of these mixtures are deeply entwined with archaeologists' tacit, bodily knowledge. This is knowing, individual and collective, rooted in years of practice, training, and repetition. It is also knowledge tempered by constant uncertainties and anxieties over what lies beneath and over the potential loss of valuable contextual information during the process of excavation. Paper-based, analog, and

digital media play a powerful and comforting role in mitigating these concerns, at least during the initial process of documentation.

However, back in the laboratory, where the archaeologist is surrounded by field logs, photographs, videos, maps, and artifacts a fundamental challenge emerges in the desire to make order out of fragmented, disarticulated information. Whether or not they are completely accurate or thorough, the necessity of sorting and editing this media is somewhat of a habitual, instinctive post-excavation practice. The purpose of maintaining diligent and systematic records, we are taught, is to allow others at any point in the future to engage our media in reconstructing the excavated site. In translating our media-oriented modalities, we aim to organize information so that it fits into a linear, progressive archaeological process, a process that is then integrated into the construction of a narrative or representation bounded by particular units of time and space (Lucas 2001). This organizational practice is, however, potentially problematic because it risks unintentionally filtering out relevant information about the archaeological process. While these risks are certainly present in any mediation, they are perhaps most visibly realized by the challenges of incorporating multimedia approaches or new media documentation into traditional archaeological practices. Unlike individual analog sources or text-based engagements, multimedia and new media technologies translate, in vivid detail, overlapping and discontinuous actions. The archaeologist's videos do not afford the separation or compartmentalizing of sounds and data, certainties and uncertainties, movements and stillness as definitively or instantaneously as the photographs or field logs may have done. The nature of these actions makes the acts of sorting, organizing, and structuring these assemblies a complicated, perhaps even impractical, undertaking (see Bowker 2005). Taken together, even the stability of many of archaeology's traditional modes of engagement (e.g. maps, images, context sheets) is offset by the motion of the videos, for example, which do little to hide the fact that the archaeological process is one of structure, but also one of co-production, mixtures, disjunctures, and transformations. Multimedia engagements cannot help but view human interactions with the material past in the present as they fold and unfold into multiple relations and iterations of previous experience on the ground.

The Archaeological Toolkit (Remix)

The challenge facing the Greene Farm archaeologist is increasingly familiar in 21st-century archaeological practice. Neither replacements nor solutions to the traditional archaeological toolkit, emergent media are best recognized as additive socio-technologies. Whether we are dealing with a strati-

graphic sequence in Second Life or a Flickr photostream, emergent media invite combinations and reiterations of traditional, routine, new, and experimental elements of archaeological recording and representation (see Webmoor and Shanks 2008). In their creation of knowledge about the past and about the nature of archaeology in the present, emergent media offer exciting possibilities for: capturing sensuous elements of a landscape that elude written translations (Tilley 1994, 2004, 2008; Ingold 2000; Charest, this volume; Morgan, this volume); constructing immersive museum presentations and virtual representations (Frischer et al. 2002; Kenderline and de Kruiff 2008; Kenderdine 2008; Tringham et al., forthcoming); increasing inclusivity and dissemination by, for example, uploading real-time excavation updates on blogs (Witmore, this volume); or expanding documentary practices and inviting multivocality by incorporating video diaries into the process of excavation (see below). The complexities and questions stemming from our reflexive transactions with emergent media offer paths to new directions; they will also lead us to reconsider assumptions about our established practices, particularly in relation to old media representations (see Bolter and Grusin 1999; Witmore 2005:154; Perry, this volume; Mallía and Vidal, this volume).

Digital technologies, three-dimensional visualizations, and web 2.0 forums gathered under the umbrella of emergent or new media are certainly not a recent arrival to archaeological practice (Manovich 2001; Lock 2003; Tringham 2005; Shanks 2007; Witmore 2005:151–154). While some of these technologies have existed for several decades, techno-savvy individuals with new media literacy have only recently, within the past decade, converged with inexpensive devices, and situated software on such a massive, widespread scale. Mobilizing these convergences is a young, rising generation of archaeologists for whom new media have always been familiar, if not indispensable, components of their everyday lives. For many of these archaeologists mobile phones, laptop computers, and digital cameras are impossible to ignore; they are essential devices, necessary prostheses for constructing and navigating social relationships, for documenting experiences, for gathering and processing information, and for producing representations (see Webmoor 2008; Witmore 2006). Incorporating new media into the archaeological toolkit of the 21st century is, for this generation, second nature (see discussion of *Archaeotechnics* below).

The contributors to this volume are members of this new media generation of archaeologists. As the case studies demonstrate, all of the contributors are as familiar and as comfortable with multimedia modes of engagement as they are with the inclusion of a trowel, field log, and measuring tape into the archaeological toolkit. While the contributors are in strong agreement about the value of the remixed archaeological toolkit, an important point emerges from the discussion, following Steve Woolgar's

observation, which calls attention to considering how media usage, new and old, is neither universal in practice, availability, or in translation (see Woolgar 2003). With this variability in mind, the contributions illustrate the vast range of possibility and potential for mediating theory and practice with various parts of the multimedia toolkit (see Huggett 2000; Lock and Brown 2000:2; Lock 2003:264). Much more than just modern conveniences, multimedia are shaping and will continue to shape archaeological practice and theory.

Experience, Modes of Engagement, Archaeology

This volume is the product of the session, "Experience, Modes of Engagement, Archaeology", co-organized by Matt Ratto, Krysta Ryzewski, and Michelle Charest for the Sixth World Archaeological Congress in Dublin, 2008. Grouped under the broader conference theme, "Archaeological Theory? Legacies, Burdens, Futures", the session focused on the interrelationship of these three concepts and their potential to mutually enrich our practices, interpretations, and theoretical agendas. Experience, modes of engagement, and archaeology are a triumvirate of intersecting concepts that underscore how knowledge cannot be separated from experience, interpretation from sensuous inhabitation. All three concepts speak to routine and enacted practices, and notions of dwelling and memory (see Bowker 2005; Comaroff and Comaroff 1992; Ingold 1986, 1993, 2000). The triumvirate emphasizes, in three dimensions and five senses, the fluidity of relations between people, things, time, media, and surroundings. These associations affirm archaeology as a discipline based on reflexive practice (Hodder 1999), where understandings of the past are immersed in the present (Shanks 1992, 1999), and where archaeologists are producers of knowledge (Ratto 2007).

The contributions in this volume underscore the transformative nature of archaeological practice through discussions that articulate the relationships between experience, multimedia modes of engagement, and archaeology (see also Webmoor 2007; Witmore 2004, 2006). The range of case studies presented here addresses these interrelationships in ways that blur and problematize distinctions between theory and practice. Complementing the growing literature on multimedia and performative archaeology, the case studies highlight the potential of multimedia engagements in archaeological research. Multimedia, in these cases, explode onto the forefront of archaeological practice as modalities that have the *potential* to articulate relationships or directions that are difficult, if not impossible, to connect using orthodox print or text-based media alone (this is the flatlands of paper-based media; see also Perry, this volume). The emphasis on the

potential of multimedia is important; it cannot be assumed that archaeologists who incorporate multimedia into their practices are critically aware of, or are willing to consider, how such engagements can reshape understandings of the archaeological record and the fundamental premises of our discipline (cf. Huggett 2000; Lock 2003). A goal of this volume is to feature research in which this potential has been realized and addressed through various creative articulations and interventions.

Experience

For over a decade discussions of experience in the archaeological literature have been closely linked with phenomenology (see Thomas 1993, 1996, 2004; Tilley 1994, 2004, 2008; Bender 1998; Hodges 2008). The intention here is not to review or critique this literature, but rather to expand upon three important points emerging from phenomenological thought that are particularly relevant in relation to the volume's themes. These points resonate in all of the following contributions, and, in several cases, are adapted by the authors along nuanced trajectories.

Situated Knowledge

Understanding experience, whether the contemporary experiences of the archaeologist (Shanks 1992), the actual experiences of people in the past (Tilley 1994), or the diversity of human experience through the production of the past in the present (Bender 1998; Hodder 2000, and see contributions in this volume), cannot be an objective process, but rather one that demands a critical and creative openness to our *immersion* in the physical world, through, for example, attention to textures, sounds, emotions (see Thomas 1996). Immersion is the pervasive process and product of situated, contextual knowledge; its richness is illustrated by engagements with the many traces of a fragmented past in the present. Shaped by prior experience, consciousness of the subject, and modes of engagement, situated knowledge is a foundation for translating archaeological relationships or representations into multiple narratives, complex juxtapositions, and iterative forms (Perry, this volume). Each of the following case studies is based upon examples of situated knowledge specific to particular places or scenarios. How the process of immersion and the resulting situated knowledge is mediated by multimedia modes of engagement, and how these engagements consequently orient archaeological theory and practice are main focuses of this volume.

Embodied Engagement

In *Body and Image: Explorations in Landscape Phenomenology* (2008), and *The Materiality of Stone: Explorations in Landscape Phenomenology* (2004), Tilley highlights the role that the body plays in mediating human experience and understandings of the material world (see also 1994). The body is a nexus of experience, he observes, as its physicality structures how we experience things, places, and landscapes (2004:4). According to phenomenology a directed intervention of the subject in the physical world constitutes perceptions of self, being, and collective identity in and of the world (Husserl 1996; Heidegger 2008; Merleau-Ponty 2002; Brück 2005:54). This structured intervention emphasizes the corporeality of subjects as individuals who felt and experienced the past; this intervention also considers how individuals feel and experience the past in the present (Meskell 1999:50). The notion of an embodied engagement is not, however, an exclusively individual action; it is deeply conditioned by collective experiential knowledge. These situated engagements and knowledge of the past, therefore, recognize the interrelationship of individual and collective identities (Meskell and Joyce 2003; Shanks 1999). Embodied engagement is appropriately discussed in relation to human subjects, an association which is clearly relevant to this volume, as the importance of the human body in mediating experience is crucial for understanding how multimedia devices act as extensions of the user's person and social milieu (see Witmore 2004, 2006; McLuhan 1994:45). It is worth noting, however, that many of the following discussions consider how experience is simultaneously mediated by the human body, material culture and multimedia. The core phenomenological notion of embodied engagements, then, is extended to reconfigure what it is to be human or to redistribute subjectivity or, in part, to multimedia devices and material culture, which are inextricable parts of human interactions.

Phenomenology foregrounds the experience of the subject's being in and of the world. Multimedia engagements can address these experiential situations, but they can also refocus attention onto the processes of *becoming* in and of the world, and how the world makes itself present to us (see Ihde 2003). Here, the issue of co-presence is significant. In addition to accounting for the coexistence of individual and collective social identities, co-presence refers to multiple types of overlapping embodied engagements (e.g. human, material, and mixtures thereof). The ability to articulate these co-present relationships is fundamental to translating the experiential (see Thomas 1996; Ratto 2007). While the subject can remain at the fore, the co-present events, processes, representations and viewers' interpretations, are all open to transformation with each reiteration, each time, for

example, the viewer replays the video, each time the website is updated, or each time different questions are used to examine an historical map. The implication of the co-presence of people, things, and multimedia blurs imposed boundaries between subjects and objects, and encourages archaeologists to step back and engage with experience more openly; the consequent products of these mediations move away from descriptions and towards more transformative, non-traditional practices of representation (see Tarlow 1999, 2000 on human emotion; Ratto 2008 on experiential knowledge; Lucas 2001; Witmore, this volume on iterative practice). As Witmore observes, an understanding of media as modes of engagement embraces, to a degree not previously addressed in archaeological discussions of phenomenology, how media modifies experience, redirects our senses, and influences our cognition (2006).

Place as Three-Dimensional and Sensuous

The experience of a place is, Tilley argues, always three-dimensional and sensuous, and is best understood by physical engagement (2004, 2008). The desire to understand landscapes as they were, in the past, is an ideal to which many archaeologists strive. This ideal remains, however, problematic using traditional modes of engagement and traditional notions of a past-present divide (see DeBoer 1994; Fleming 1999; Bradley 1998). We must note that the study of how these idealized interpretations are colored by the romanticism of the past in the present (Blintiff 2008), and by nostalgia (Hodge, this volume) are informative and interesting directions for further research. In these cases, the move away from objective, singular, or totalizing descriptions of places invites understandings of landscapes as dynamic entities in constant movement over time.

Most importantly, the use of multimedia to examine sensuous experience increases documentary possibilities, permits movement free of the bounds once generated by traditional text-based translations of experience, and encourages the creation of multimedia products that can be used, in turn, to focus on issues of experiential knowledge in theoretical and methodological debates (see Ingold 2000). The ability to listen to layers of sounds in a pub (Charest, this volume), watch 360° panoramic vistas of a World Heritage Site in a museum (e.g. Place-Hampi: Kenderline and de Kruiff 2008; Kenderdine 2008), visit a site, such as OKAPI Island, virtually in Second Life (Morgan, this volume; Webmoor and Shanks 2008), or navigate through a project's web archive (Ryzewski 2007) recasts the potential for experiencing archaeology through representations that are deeply rooted in immersion, interaction, and iterative practice (Brück 2005:51). These are products that inspire questions about designing and creating

experience, as much as they do about archaeology as a transformative process (see Latour 1999; Webmoor 2005, 2007; Witmore 2004).

Modes of Engagement

On one level, archaeological survey and excavation can, of course, be viewed as modes of engagement, practices that translate our knowledge of the past in the present. Given archaeology's located nature, these practices may involve practitioners with descendant communities, connect us with materialities, and demand careful consideration of our authority as stewards of the past. Here, the focus is on discussions of multimedia as modes of engagement to demonstrate what we can learn from the complexities of interrelationships between archaeology, events, experience, and the specific media involved. Media are mediators. From context sheets, to 1:25,000-scale survey maps, to video cameras and project websites, these media shape the relationships between archaeologists and their experiences of the material past. This understanding of modes of engagement, adapted from Michael Shanks, recognizes these mediators as ways that articulate people and artifacts, senses and aspirations, and the associative paths and trajectories, which do not work linearly, but fold, mix, and repeat events, motion, and media (Shanks 2006; see also Latour 1986).[1] The notion of modes of engagement forefronts the understanding that media influence the translation, interpretation, and the articulation of the material past.

Whether one begins by mediating an archaeological event with analog photography, 3D graphics software such as Maya, or a DAT audio recorder, such media, software, and equipment are active participants in the archaeological process, not just in their initial incorporation into practice, but in how their resulting products subsequently enact different effects on other relations, demanding alternative and additional engagements (see Witmore 2004, 2005; Hodge, this volume; Morgan, this volume). The products associated with these modalities create interpretive possibilities by juxtaposing multiple media, and by performing actions that shuffle and muddle seemingly orderly relations. Modes of engagement orient us towards the complexities, overlaps, and temporal mixing that constitutes the archaeological process.

Modes of engagement are also modes of production. As is the case with the virtual reconstruction of the Dante Hotel in Second Life, for example, the production is not fixed; it is one iteration of the archaeologists' or viewers' engagement with the interface (see Shanks 2009 http://documents.stanford.edu/michaelshanks/36; Morgan, this volume). Neither product nor engagement is neutral or objective, because neither operates or exists in isolation. Take, for example, the Greene Farm archaeologist in

the opening vignette of this introduction. As she creates products for her digital archive, her role as mediator and interpreter is not always visible or emphasized. But she remains very much present in the equation, as a mediator among mediators. As such, the experience that she documents through the video camera is simply not reducible to a single interpretation. It is distributed, an experience colored by the excavators' actions, by the descendants who share their folklore of the site, by the excavated materials of past experiences, and so on. Experience is, then, tightly woven with modes of engagement. Our understanding of it archaeologically depends equally on how the mediating is taking place as much as on what is being documented.[2]

Archaeology

Archaeotechnics: A Case Study

Over the past two decades, an increasing number of archaeologists have incorporated new media into fieldwork projects, research, laboratory work, and pedagogy.[3] These new media ventures have moved archaeological theory and practice in exciting directions, bringing visibility to issues of media archaeology, performance, hybrid practice, and digital humanities (see Hodder 1999; Tringham 2004, 2005; Tringham et al. forthcoming; Shanks 1997, 2007; Witmore 2004, 2006; Wolle and Tringham 2000). Despite gaining widespread momentum and acceptance, concerns remain as to the productivity, longevity, and place of multimedia ventures within archaeological knowledge-making (see Holtorf 2007; Shanks 2008; Brand 2003; Witmore, this volume). Existing multimedia applications in archaeology are also challenged theoretically and pragmatically by issues of loss, degradation and poor memory practices; these are issues visible in the struggles with, for example, the short life-spans of computer programs, the nature of digital archives, the extent of dissemination, and the (in)ability of viewers to interact with multimedia representations. One underlying concern with multimedia is with the sustainability and accessibility of the engagements' outcomes. As Sara Perry urges, to be relevant and promising, these outcomes must be "more than one-off experiments in single multimedia ventures" (this volume; cf. Witmore on redundancy, this volume). Furthermore, she adds, these projects need to be viable economically to researchers worldwide who may not necessarily be affiliated with well-funded projects or institutions.

From these foundational projects and concerns, it is clear that whether or not the incorporation of new media into archaeological projects is a novelty, it remains the responsibility of the archaeologists to engage with

diverse modes of engagement and, in doing so, to translate the results with relevance, viability, and sustainability in mind. Digital technologies may be user-friendly and fun to incorporate in archaeological projects, but knowing what to do with the results, and thinking about the implications for recombining modes of engagement and archaeological knowledge are far more complicated matters that demand serious attention (see Lock and Brown 2000; Perry, this volume; Witmore, this volume). It is during the process of translating modes of engagements into a designed product that the rich interrelationships between experience, these modalities, and archaeology are articulated. The process of design, selection, and editing is, perhaps, as important for archaeologists to reflect upon as the reception of the ''final'' product.

To illustrate these interrelationships in action, I draw upon a case from my own recent with the development of a digital interface provisionally called *Archaeotechnics*. The *Archaeotechnics* project emerged out of a desire to design a digital architecture that could combine and visualize the multimedia used in archaeological survey and excavation projects. The goal of the *Archaeotechnics* interface is to facilitate interaction with the media that convey the experiences of excavation and post-excavation. A window into the archaeological process, this interface is structured, yet agile. The desired outcome of the *Archaeotechnics* project is threefold: (1) to design a digital interface that archaeologists will use to circulate and combine multimedia from their fieldwork practices; (2) to present these multimedia data to viewers in a flexible archive open to annotation; and 3) to ensure the longevity of these media within a long-term digital repository (in this case, the Brown University library).

Assembly and design are the two components of *Archaeotechnics* that are especially important in relation to the themes of this volume. Assembly involves the gathering of several individual media engagements and experiences. These gatherings are articulated and transformed during the process of design, the process which results in the construction of the actual interface. The processes of assembly and design work together to produce what becomes a modality, an engagement that is also, in part, a designed experience (see Manovich 2007). By necessity these processes demand degrees of order, as in the standardization of file formats and image tags, or the grouping of information according to particular sets of relations. The consequence of this ordering practice is that information is filtered or edited from the source material in order to create a cohesive product. While a cohesive, well-designed outcome is certainly desirable, the consequences of removing traces of the assembly and design decisions results in a product that can potentially distance and disconnect users from the archaeological processes of knowledge production and transformation. Using the case of *Archaeotechnics*, however, I argue for the value of reflecting upon these

developmental processes, as the activity of designing a multimedia project or representation is an equally important archaeological consideration as the outcome.

The *Archaeotechnics* interface emerged over the course of several months during the 2008/2009 academic year from a collaboration between myself, archaeologist Christopher Witmore, and two computer programming and research specialists from the Scholarly Technology Group (STG) at Brown University, Ellie Mylonas and Andrew Ashton. Our initial discussions focused primarily on issues of logistical and technical constraints; concerns with data organization and visualization were at the fore. These discussions were intertwined with concurrent archaeological fieldwork, which my introductory field methods class, *Archaeology of College Hill*, was conducting at the John Brown House in Providence. The coincidence of our digital initiative with the John Brown House excavations allowed us flexibility in our experiments with multimedia archaeological documentation practices during our process of designing the interface.

During the excavations students used: paper-based context forms for documenting each new strata, level, or feature; digital photography; total station mapping; and drawing squares to assist in creating scale maps of important features. As their weekly blogs detail, students came into the class expecting to engage with these traditional forms of archaeological media.[4] They did not, however, anticipate our integration of digital video and Web 2.0 software (a wiki architecture) into the excavations.[5] In the field, the video cameras served two purposes. One camera, a high definition camcorder, was used by students in tandem with the context forms. Each time a new excavation context was identified, the excavators recorded it on film with an accompanying narration. A second camera, an inexpensive flip video recorder, was reserved for impromptu events. Students used the flip video to capture the candid dynamics of excavations in conversations between personnel, in soil sieving, and during the exposure of features and artifacts (Figure 1). On the course wiki, students were required each week to post formal excavation summaries, informal field blogs, and research projects that engaged with their findings and reflected upon their experiences. On the one hand, the incorporation of these modes of engagement into the introductory field methods course was a test of the students' abilities and willingness to blend digital media into the archaeological process. On the other, we used the content they generated to test the architecture behind *Archaeotechnics*. Whether a consequence of their previous exposure to new media, or of their lack of prior archaeological fieldwork, the students moved seamlessly between engagements with old and new media, and richly documented their experiences with archaeology.

The discussions among the *Archaeotechnics* collaborators were, however, notably more complex. Faced with no fewer than a dozen individual types

Figure 1. A student documents her *Archaeology of College Hill* classmates with the flip video camera as they discuss excavation plans for the day (K. Ryzewski 2008)

of media-related information, we were tasked with decisions about translating and preserving the ever-increasing archive of data that the students were producing. In working through the assembly of multimedia data, we were challenged to direct, shape, and constrain the possible ways of engaging them. Seemingly straightforward questions about how to sort the data and assign naming conventions carried with them the potential for erasing important associations between parts of the archaeological process. The tension between shaping open access and preserving the integrity of the information was constant throughout our design sessions. Should the interface have a hierarchical structure that channeled and directed viewers as they "drilled down" through the layers of detail? Or should we organize the information more informally, allowing viewers to engage with the interface in a sort of "discovery mode"? Bound up with these questions were our translations of group experiences, particularly of those who produced and were depicted by the media (e.g. the excavators). Our recognition of media as modalities made us keenly aware that our design decisions would, to an extent, also shape future users' individual experiences and future archaeologists' field engagements.

Our prevailing concern, however, was to avoid an overly-contrived outcome on the one hand, or an overwhelming, haphazard product, on the other. Design considerations were made with an eye towards striking a balance between necessary editing and sorting, and communicating the archaeological experiences at the John Brown House, which were full of simultaneous activities and even disorder. Ultimately, we decided to base the interface design on our excavation practices. Almost intuitively, these
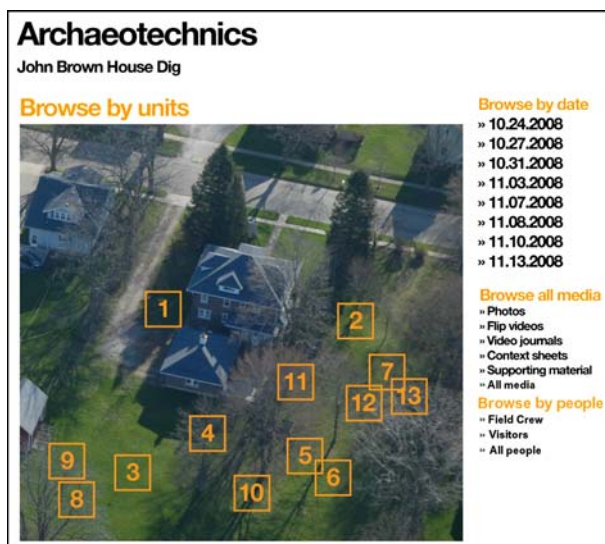
Archaeotechnics
John Brown House Dig

Browse by units

Browse by date
» 10.24.2008
» 10.27.2008
» 10.31.2008
» 11.03.2008
» 11.07.2008
» 11.08.2008
» 11.10.2008
» 11.13.2008

Browse all media
» Photos
» Flip videos
» Video journals
» Context sheets
» Supporting material
» All media

Browse by people
» Field Crew
» Visitors
» All people

Figure 2. Front end prototype of the *Archaeotechnics* database (original image courtesy of A. Ashton, modified by K. Ryzewski 2008)

involved a hierarchy of organization, which moved from the initial identification of the site, to sub-divisions of space, to establishing excavation units, to the excavation contexts within these units, to the excavated materials. As it stands currently, the *Archaeotechnics* database is structured by an array of options that remediate the archaeological process of excavation. The primary visualization, or front end, that users encounter begins with a few choices or points of departure (Figure 2). One can explore the site by a series of events: date, unit, excavation context (i.e. strata), media type, or people. Any of these selections will generate an assembly of multimedia related to the particular event.

For example, selection of a particular date will produce a list of all of the excavation contexts and thumbnails of associated videos, images, and paperwork associated with the day's activities (Figure 3). This visualization allows the user to interact with the translations of a particular day in the field. Alternatively, if a person's name is selected from the main page, one can follow the excavator's actions over the course of the entire project, from viewing the context sheets that they authored, to observing them excavate a feature, to listening to their commentaries on videos. Another possibility is to select the ''view all media'' option, which results in a cascade of image and video thumbnails, in no particular order. In all cases, the central focal area is a blank *palette*, an empty space bordered with a toolbar of associated media. From this toolbar, the user can move any
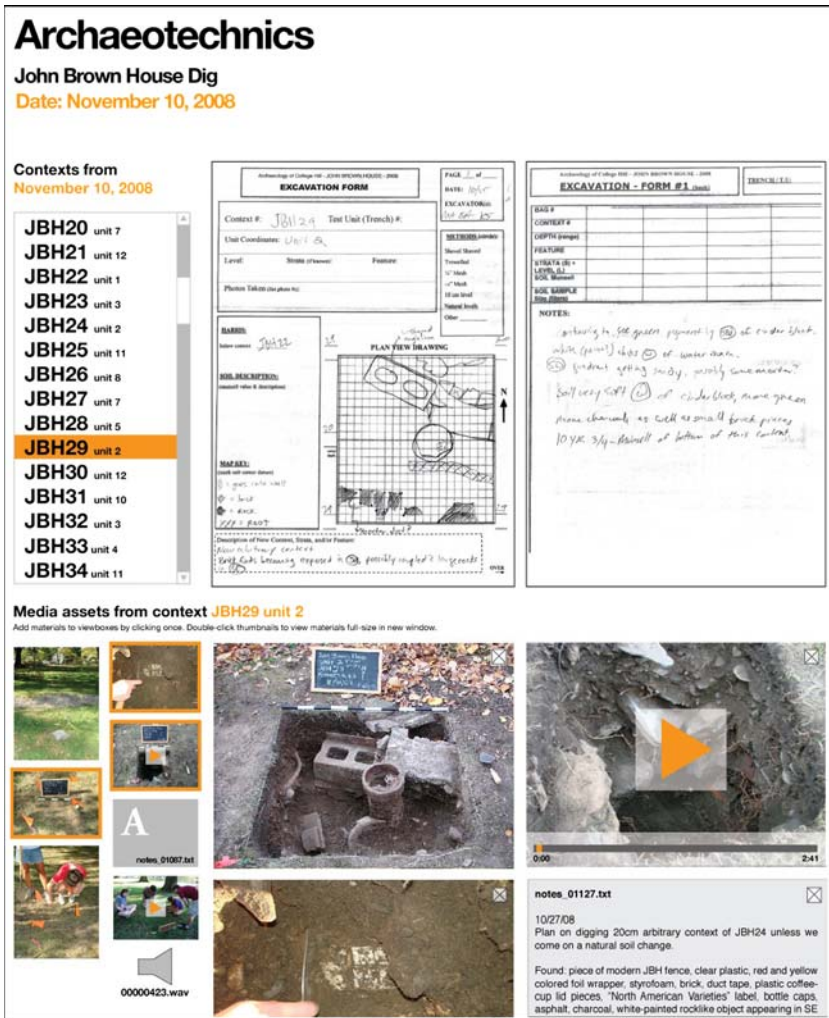
Figure 3. Visualization of media associated with a date-based search in *Archaeotechnics* (Image courtesy of A. Ashton 2008)

quantity of (formerly singular) information onto the palette, by dragging, enlarging, juxtaposing and animating thumbnails of artifact images, candid flip videos, a student's field blog, or any other media related to the particular event query. To an extent, the degree of structure or randomness of the *Archaeotechnics* engagement is based on the viewer's decisions. The important point to emphasize is that the options of events that one can follow from the main page of the *Archaeotechnics* interface is an iterative design,

one which permits repeated visits to different experiences, media, or episodes of the excavations (see Shanks 2008 on Archive 3.0).[6]

The implications of this type of design are valuable for archaeological practice because they recast our traditional notions of fieldwork as an active and iterative process. What we have created in the design of *Archaeotechnics* is a mode of engagement that presents and translates the *eventful contexts* of archaeological fieldwork. Rather than succumbing to the temptation to structure and filter information into a neatly packaged or linear database, these eventful contexts, as Gavin Lucas notes, encourage the comparisons of materializations, the acts of which creates the possibility of iterability and repeated examination of archaeological relationships (2001: 213–214). The development of *Archaeotechnics* was a direct response to these challenges of organizing, curating, and presenting the archive of media associated with archaeological survey and excavation. The resulting interface is not a singular product, nor is it one individual's creation; it is a collaborative creation; it is a co-production. *Archaeotechnics* is an interactive, participatory, and multi-vocal archive; an assembly of engagements anchored in observable and thoughtfully recorded archaeological experiences.

The case of *Archaeotechnics* is an illustrative device for showcasing the complexity of issues that emerged from ''Experience, Modes of Engagement, Archaeology''. There are, however, a few important points that surface in this case study and reappear in others throughout this volume. Here, media (of all sorts) are recognized as modes of engagement that transport the past into the future (Shanks 1992:6; Witmore, this volume). In the engagements with *Archaeotechnics*, for example, the practice and processes of archaeology are visible, exposed. In permitting transparency of the archaeological process, multimedia practices have the potential to redistribute authority, to reshape how archaeology is viewed by others, and how archaeologists view themselves (see Shirky 2003 on Social Software).[7] Digital movie clips on *Archaeotechnics* in which excavators struggle to identify a new stratum, the stripping of authority from printed images (Perry, this volume; Moser 1998; Smiles and Moser 2005; Shanks 1997), could be understood as attempts to interpret an archaeological site through an archive of nostalgia (Hodge, this volume), or likewise, a self-reflection about creating an expressive representation in virtual reality (Morgan, this volume); all are engagements that drop the mysterious curtain veiling the archaeological process. These engagements expose us; our sense of anonymity is lost (Deutsche 1995), uncertainties about our processes are palpable (see Cochrane and Russell 2007). But these consequences are not damaging to the discipline or to the co-production of archaeological knowledge. To the contrary, these are tools and byproducts for reflecting about our practices, they are invitations for us to account for traditionally

less tangible topics, such as emotion, experiential knowledge, the nonlinearity of time and relations (see Pearson and Shanks 2001), and the plurality of things (Witmore, this volume). The opportunity for capturing different archaeological moments, processes, and contexts with multimedia tools is just the beginning for explaining how and why, as Ratto observes, new tools, theories, and methods enter into existing practice and knowledge (2008).

Volume Contributions

The contributions in this volume illustrate the sheer diversity of perspectives and future directions that lie at the intersections of modes of engagement, archaeology, and experience. Interestingly, none of the authors privilege one type of media, whether new or old, over the other; all engage with context-specific or customized multimedia assemblies. In addition to addressing the use of multimedia as documentary tools in fieldwork, the following contributions involve: experiments with media that explore intersections between sensuous experience and material culture; reflections upon how media shapes archaeological practice; and attention to the processes of creation, iteration, and memory in archaeological practice. All of these interventions enhance and add rigor to the archaeological process, by complicating interpretations, by challenging traditional forms of knowledge and representation, or by acknowledging the influences of our own experiences in the process. These contributions are rich and nuanced case studies that unleash an expanse of issues, many of which raise exciting new questions and possibilities.

In the opening contribution, Sara Perry sets the stage for many of the themes and debates that recur throughout the subsequent discussions. Drawing on many of the same questions that are often considered in relation to new media and multimedia assemblages, Perry revisits orthodox, two-dimensional media (e.g. maps, textbook images, and photographs). Perry's points of departure question the competency of archaeologists as users of ''orthodox'' media, and archaeologists' awareness of their engagements with these media in practice. Archaeologists, she argues, must operate with enskiled vision, responding reflexively to everyday interactions with all media (see Ingold 2000). In problematizing the power of visualization, Perry acknowledges and critiques the specificity of images. Through a series of manipulations and deliberate interferences of two-dimensional renderings, she powerfully demonstrates how images can and should be viewed as expressive and constructed modes of engagements.

Sara Perry urges archaeologists to engage with two-dimensional media more rigorously. Michelle Charest shifts the focus slightly by encouraging

archaeologists to engage with multimedia thoroughly in documenting their *own* experiences. Here, emphasis on reflexivity is woven into Charest's focus on the everyday experiences of the archaeologist, and the important and often neglected roles that these informal, routine experiences play in the production of archaeological knowledge about material worlds, past and present. In an experiment called ''The Virtual Pub Project'', Charest uses thick description and new media devices, particularly audio recorders and high resolution digital film and imagery, to mediate her own experiences of a local Irish-American pub. The results of this type of experiment, she argues, translate parts of experiences that are not easily captured in writing or static visual representations (e.g. noise, textures, vantage points, juxtaposed objects, dark spaces). Charest concludes by inviting archaeologists to revisit how our own perceptions are constituted by exploring sensuous alternative viewpoints in considering archaeological experiences and knowledge production.

Archaeological knowledge is not only entwined with how we see or experience the material past in the present, but it is also shaped by our archaeological research agendas and disciplinary identity (see Edgeworth 2003, 2006; Hodder 1999, 2003; Wylie 2002). Soledad Mallía and Aixa Vidal target media-based constructions of identity in their bibliometric study of archaeological productions in two Spanish academic journals, the *Anales del Museo de América* and the *Revista Española de Antropología Americana.* Their comparative approach to discourse analysis details how the two journals' formats, editorial practices, and authors' backgrounds affect epistemological positions and subsequent research orientations in archaeology. Mallía and Vidal examine researchers' experiences and interests as they are documented in each journal, and then assess their findings in relation to specific research topics, national identity, and professional affiliations. Their study of text-based modes of engagement and the influence of these journals in relation to Spanish and Latin American scholarship is, they argue, both a testimony to the continuing influence of paper-based engagements, and a crucial reminder of the uneven access, pace, and scale of digital media in developing countries (see Woolgar 2003).

These first three contributions clearly demonstrate how the archaeological process is transformative *and* transformed in relation to multimedia practices. Underlying these transforming practices of documentation, writing, and developing representations, however, is also the opportunity for personal expression, a sentiment that is often collapsed, sterilized, or muted in the final products of archaeological projects. Expression is a theme central to Colleen Morgan's insightful discussion about her role in constructing a virtual model of Çatalhöyük in Second Life. Morgan departs from creating a static and anonymous digital reconstruction of the physical site of Çatalhöyük and instead reflexively documents the processes and challenges of

interpreting the site based on her individual and collective archaeological experiences. These experiences are translated by her work with virtual reality and other digital engagements. Morgan offers a powerful assertion in her discussion about accuracy, which she argues is not a realistic or possible outcome of her digital reconstructions. Instead, she calls for attention towards the creative process, the active role of the archaeologist in working with issues of personal expression (e.g. avatars), and a view of the outcome not as a model, but as a multivocal mode of engagement that can be used as an interpretive tool and for public outreach.

The processes of interpretation, reconstruction, and memory are also central to Christina Hodge's considerations of nostalgia in her discussion of the archaeology and historic preservation of the Elihu Akin House in New England. Hodge focuses on three episodes of individual and collective memory to illustrate the property's existing "archive of nostalgia": archaeological excavations during 2007, a 1922 silent movie, and an Akin son's personal letter from 1778. These three engagements consider remembrance as "in-process experiences". As processes that are both iterative and shifting over time, Hodge's archive of nostalgia is an important theoretical device for examining the fluidity and nonlinearity of historical interpretations and memory-making over time. Nostalgia operates, she argues, with a need to achieve an idealized, but never realized, state of the past. Its "backwards pull" invites archaeologists to consider experience in the past, but also to consider critically the process of re-experiencing the past in the present, particularly in relation to engagements with media, archaeology and memories. The implications for considering nostalgia in archaeology are significant. This is, especially in consideration of how nostalgia is created and construed by archaeologists and others, how notions of "home" and place have been identified interpretively, and how nostalgia is used to anticipate and sustain preservation concerns and heritage values.

In the final contribution, Christopher Witmore addresses the question of how to anticipate for future concerns in archaeological practice, concerns that arise from our media-oriented engagements in the present. In focusing on memory practices, Witmore urges archaeologists to involve creative and diverse modes of engagements into practice while remaining carefully and consciously attuned to the ways in which these engagements transform both archaeological practice and the types of pasts we transport with us into the future. This discussion introduces the concept of *open pasts*; media ecologies that demand flexible and agile forms of iterative practice, and therefore allow for potentially unforeseen interactions and revisions in the future. Witmore identifies the nature of the archive, loss, and memories as issues central to anticipating how archaeologists will engage with the past in the future. Illustrated by a series of vignettes,

ranging from revisiting a Mediterranean landscape survey to a stone circle by artist Richard Long, Witmore engages iteratively with the outcomes of previous practices and with the plurality of things. Witmore expresses, in his considerations of technologies and the emergent prospects of "everyware", how various modes of engagement modify our relations with the material world and therefore with our own memory practices.

Michael Shanks concludes the volume with a provocative discussion about engagement as archaeological design and engineering. Shanks highlights the types of engagements that digital media permits and how these consequently change archaeological practice, opening up new value systems in academic discourse in which tacit knowledges, iterations, collaborations, and experimentations are at the fore. Complementing the contributors' propositions and explorations throughout the volume, Shanks calls for greater reflexive experimentation and risk-taking in archaeology. Experiments with multimedia engagements, he argues, can work hand-in-hand with orthodox archaeological discourse.

Conclusion: The Unfinished Project

I conclude with a brief point about the necessarily unfinished character of these multimedia engagements. Diverse modes of engagements differ, especially in relation to experience and archaeology, because their co-constructed products cannot, in most cases, be considered complete or final (Shanks 1992:130). These engagements, to paraphrase Cohen (2009), can be no more completed than the building of a metropolis, the entries on Wikipedia, or one's profile on Facebook. In this sense, the goal of attaining a finished product from multimedia is perhaps a misplaced ideal. Instead, the intersections between experience, modes of engagement, and archaeology shift attention to translation, recombination, and co-production as integral and important components of assemblies in our practice. The discussions that follow offer promising and intriguing interventions into the rich potential of these engaged perspectives, both within and on the edges of the flatlands of paper-work and computer screens.

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Notes

1. Shanks defines a mode of engagement as, ''a way of articulating people and artifacts, senses and aspirations, all of the associative chains and genealogical tracks that mistakenly get treated as historical and sociopolitical con-text'' (2006).
2. Matt Ratto emphasizes the importance of engaging with the materiality of visual representations through transactional, performative, and enacted engagements (2008). As he notes, these engagements connect archaeologists to experience in a way that overcomes traditional, singular, and limiting representations and articulations of knowledge. The connection between multimedia modes of engagement and experience promulgates an immersive relationship in which knowledge is a co-production between the individual, the collective, the past, and the present (see Ratto 2007, 2008). Co-productions are the results of engagements that are based on experiential knowledge; in translating these archaeologically, they enlist memory practices, they require filtering, they result in losses, and they are fueled by expectations (see Bowker 2005). The product, or co-product, in the collective sense, whether a film, website, or map, engages memory-making as a dynamic and iterative practice, one that allows for repeated visitations and multiple opportunities to realize, if not ''remember'' segments that went unnoticed before they were made meaningful through their co-production. The manifold connections between experience and archaeology are undoubtedly complicated to tease out, but multimedia modes of engagement provide a tangible way in.
3. Examples of these are the Metamedia Lab at Stanford, the Cultural Virtual Reality Lab at UCLA, ''Remixing Çatalhöyük'' by the Open Knowledge and the Public Interest (OKAPI) at UC Berkeley, Archaeolog, and a number of postgraduate programs in media archaeology, especially in the UK.
4. http://proteus.brown.edu/archaeologyofcollegehill/6344.
5. http://proteus.brown.edu/archaeologyofcollegehill/6292
6. http://documents.stanford.edu/michaelshanks/186
7. http://www.shirky.com/writings/group_politics.html

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