Looking Toward the Future: Heritage Presentation and Interpretation and their Relation to ICT

Neil Silberman
Ename Center for Public Archaeology and Heritage Presentation

If the aim of public heritage presentation and interpretation is to share insights and reflection about historical and cultural significance with the general public, to what extent and by what methods are those objectives now being achieved? In recent decades we have all witnessed an explosion of interest and investment in public interpretation in schools, sites, archives, libraries, and museums in which the new digital technologies have played an increasingly prominent role (MacDonald 2006). In the interactive touch screens of national museums and local visitor centers, in the interpretive applications at archaeological sites and monuments visited by school groups and tourists in their millions, and in countless websites and on-line archaeological databases, the past has become an ever-present reality that is simultaneously more real and more virtual than ever before. No longer the exclusive domain of specialized scholars trained in arcane lore of ancient languages, ceramic chronology, and architectural history, the past is now seen as a resource for the economic development of local communities and regions, a medium for cultural identity and cross cultural communication, an edifying destination for cultural tourists, and a focus for educational enrichment. As the presentations at this conference will vividly show, Virtual Reality offers a compelling range of techniques for visualization and immersive experience; multimedia, in its interactivity, flexibility, and wide variety of applications provides interpretive tools of far-reaching potential; online events and digital projects can provide anyone with a computer and an internet connection with a direct link to historical monuments, archaeological sites and laboratories all over the world.

In this opening presentation, I'd
like to concentrate on one particular element of this emerging digital world: namely, that unique nexus of scholarship, public administration, tourism, town planning, and community activities that are connected with the on-site public interpretation of particular places deemed to be of archaeological historical significance. By their very context and setting, listed monuments, archaeological parks, and historic districts are quite distinct in their use of digital technologies from museums, classrooms, and cyberspace. For the site is not only the venue for digital presentation, it is the reason for the interpretation itself. Museums can be moved, rebuilt, redesigned, and reconfigured. Websites can pop up and disappear everyday. But the historical site is the tangible embodiment of our legacy from past generations, and as such, should it be altered, damaged, or disappear, a part of our heritage would be permanently lost.

Public heritage is not just an optional social luxury but a vital component of the every human society (Lowenthal 1985). Our perceptions of the past as both individuals and communities—whether they come from schoolbooks, grandmothers' stories, neighborhood landmarks, or digitized archaeological data—offer us an almost biologically necessary sense of chronological balance, without which we simply would not know who, where, or even when we are. The iconic images of famous monuments, typologically-arranged pottery sherds and flint tools in glass cases, the architecture of historic urban districts, elaborate archaeological parks, and even over-grown, fenced-off ruins in remote places evoke powerful emotional associations and inspire complex mental associations about past and present, about progress and decay for everyone. The visual and tactile network of fragments of ancient or merely "old" material culture is everywhere around us and our physical immersion in a variegated landscape of new and old and ancient creates a deep personal relationship with the past—that may or may not be exactly the same as what heritage experts, preservation societies, academic studies or authoritative text panels tell us that relationship should be.

Here I would like to make a crucial distinction between the terms "Presentation" and "Interpretation". In the last two years of working with ICOMOS on the Ename Charter for the Interpretation of Cultural Heritage Sites (Silberman 2006), it has become evident...
just how confused and unclear two distinct approaches to communicating information about the past to the public have become. The essential meaning of Presentation is "making a collection of condensed, comprehensive, systematic information; a summary or synopsis"—a digest—and that is how Heritage Presentation has traditionally been done. On the basis of scholarly research and expert opinion, a carefully planned arrangement of information and physical access to a cultural heritage site is designed and presented to the public, usually by scholars, designers, and heritage professionals. Heritage Presentation in that sense is a largely one-way mode of communication in which scholarly or officially sanctioned perspectives are presented to the public in the form of physical and virtual reconstructions, historical narratives, and systematically arranged collections of facts.

In contrast, "Interpretation" places the stress on the understanding of the receiver of the message as much as the content of the message conveyed. In that sense, interpretation is not complete or successful until some channel of communication has been established. What good, after all, is a trained language interpreter if the translation is not accepted or understood? Interpretation has the active sense of "sharing a personal sense of understanding," and that process of reflection and association can be done by anyone who experiences a heritage site. Interpretation must, or should, include the full range of activities, reflection, research, creativity, and creative associations stimulated by a cultural heritage site. Although heritage professionals and scholars play important roles and often initiate this process, it continues and matures only with the input and involvement of visitors, local community groups, and other stakeholders of various ages and educational backgrounds. For every generation's view of the past is a common, composite creation—a shared recognition of the burdens, the pleasures, the achievements, and the legacies we have inherited in many different ways.

Digital technologies have now become major elements in the contemporary shaping of our perceptions of the past, in both presentation and interpretation modes (Hemsley et al. 2005). Never before, have so many people, in so many walks of life in so many places, been offered so many avenues to the past. But do these avenues all lead in the same direction? Should
they? And what is the larger role in our society can the digital heritage technologies most effectively play?

**Creating an Information Infrastructure for Cultural Heritage**

There is no question that the new digital technologies have already greatly enhanced public heritage and archaeology programs, but they have also become integral components of contemporary historical and archaeological research itself (Evans 2005). Remote imaging, field data recording, database construction, the analysis of subtle statistical patterns, and the creation of dynamic visualizations have all profoundly altered the very character of archaeology. The enormous data processing power of the digital technologies now make recording much more precise and flexible. They also possess an unprecedented ability to detect subtle patterns in the material record both through time and space.

Yet, as we all know, the digitization of archaeology is, if not in its infancy, then at least in its youth. It faces a wide variety of technical challenges (Addison 2003). The wide range of applications and data formats in which archaeological information is currently collected and processed results in isolated clusters of data and visualizations that are not easily transferable or even comparable. This is a particular problem because of the current global scale of archaeology. For there once was a time when historians and archaeologists worked entirely within regional or thematic traditions; there were, for example, prehistorians, Classicists, Near Eastern archaeologists, Mesoamericanists, and indeed specialists in regional histories and archaeologies all over the world (Trigger 1990). But today, no branch of historical studies is entirely isolated from the others. New approaches and methods developed in one place are readily adopted in others. Although the specific historical context of a 19th century factory site may be worlds away from a Late Bronze Age temple, it is not uncommon for their excavation and data analysis to be conducted in similar ways.

No less important, the increasing influence of anthropological approaches over traditional art- or culture-historical methods, make universal themes such as urbanization, migration, social relations, and technological innovation increasingly relevant everywhere (La Bianca and
Scham 2006). In keeping up with-and even increasing the pace of these theoretical and methodological developments, the digital technologies have a central role to play. In fact, one of the most important initiatives in this direction is the EPOCH network (an European Sixth Framework network of excellence), whose mandate and challenge is to coordinate the research of dozens of institutions working in of Cultural Heritage ICT throughout the world to forge a common information infrastructure for all of cultural heritage (EPOCH a. n.d.).

This has so far been conceived primarily as an engineering challenge. In EPOCH's original vision, the basic strategy to overcome the fragmentation of information is integration-the seamless merging and interchange of digitized data along a cultural heritage informatics production pipeline (EPOCH b n.d.). At the start of this pipeline are the applications for data collection and documentation, followed those for processing and archiving information, management, curatorship, and preservation, image processing and enhancing, reconstruction and narration. At the very end, after the scientific work has been concluded and the scientific judgments formulated, come authoritative, accessible, and complexly hyperlinked dissemination, in the form of academic publications, closely followed by popularized presentations for the general public in the form of effectively crafted CDs, DVDs, websites, and multimedia applications for use in education, community edification, and the valorisation of museums, historical monuments, and archaeological sites. The goal of EPOCH's integrated pipeline is thus "to provide a clear organisational and disciplinary framework for increasing the effectiveness of work at the interface between technology and the cultural heritage of human experience represented in monuments, sites and museums".

Another ambitious initiative toward integration of Cultural Heritage ICT, deals more with the centralization of content than the technological structure. It is the proposed SAVE Project, formulated by Bernard Frischer of the Institute for Advanced Technologies in the Humanities of the University of Virginia (Frischer 2004). SAVE, whose acronym stands for "Serving and Archiving Virtual Environments," is conceived as a global framework for creating, archiving, and distributing an online real-time
visualization of the entire cultural history of humanity. Linking together digital reconstructions of scattered sites and periods, it would, in Frischer's words, "become a powerful omnidisciplinary tool for research and education. It would help us to visualize the development of human culture and to analyze the continuous interaction between humanity and the natural world on various scales from the atomic and cellular to the planetary and galactic". In its envisioned global integration and interoperability, it would become the definitive archive, library, and showcase for all digital heritage.

Many obstacles remain to the achievement of this vision of an integrated cultural heritage information infrastructure, both in terms of the enormous computing power and capacity required for such a grand challenge and in light of the current fragmentation of information sources and types. But the natural capacity of digital technologies to speak in a unified, flexible language offers it offers the real possibility of becoming the obvious medium for a global collective memory. It is important to note, however, that these ICT projects envision heritage presentation and education programs essentially as the end-point of a production process. That is to say, that the general public are seen as end-users of definitive scientific information about the past that is presented in increasingly vivid realistic ways. Yet are the digital technologies essentially value-neutral recording devices that can powerfully capture the unambiguous essence of ancient societies? (Cameron & Kenderdine in press). In fact, do ancient monuments and the societies that built them even have an unambiguous essence that can be agreed upon by all researchers and digitally visualized that will survive into an indefinite future despite the continuing, dramatic evolution of historiography itself?

David Lowenthal (1994) put it best-and with characteristic frankness-when he wrote that "the more realistic a reconstruction of the past seems, the more it is a part of the present". This is especially true of visualization, in which the digital technologies excel. Just compare an artist's rendering of a pharaonic temple from the massive 18th century Description de l’Egypte, with an early 20th century Egyptologist's reconstruction, with the latest computer-generated imagery. The differences are not only due to the progressive accumulation of scientific
data or increasingly advanced techniques of reconstruction. Each of them also embodies the deepest cultural sensibilities of the era in which they were made (Molyneaux 1997). That cannot be avoided; we can only see the past from the perspective of the present and that inevitably time-bound perspective is what makes every generation’s vision of the past so valuable and unique. And so we must ask if the most important element of this digital vision is its scientific conclusiveness -which will surely be superseded by the research and insights of future generations of scientists- or its unique digital capacity to expand, revise, and update its tightly interwoven content with new facts, new discoveries, and ever changing hypotheses, emphases and ideas.

**New Heritage and New Forms of Interpretation**

Scholarly research and its digitized public presentations are only one part of the story. We are confronted today with new kinds of heritage whose significance defies analysis by scientific methods alone (Peckham 2003). Our material legacy is no longer seen in only stately buildings or prehistoric settlement levels, but in an increasingly broad and sometimes unpleasant sampling of the achievements -and failings- of human history. The World Heritage List now includes the grisly remains of World War I trench warfare, concentration camps, colonial prisons, and rusting, crumbling 19th century factories and mines where children worked, workers died, and the very idea of a production pipeline was born. Can statistical patterning of shell holes in No Man’s Land at the Battle of Ypres, or a detailed database of the eyeglasses and shoes collected from the victims at Auschwitz, or a precise 3D reconstruction of the 18th-century slave terminal on the island of Gorée off the coast of Senegal help us better to understand and to productively reflect upon the unpleasant realities of the past still painfully embedded in the fabric of our society—that those heritage sites symbolize?

I spoke before about the distinction between Presentation and Interpretation, and want to return to this subject, because heritage is not only about scientific results and official commemoration, but about the opportunity for serious public reflection as well. For interpretation, in contrast to carefully prepared presentations, is based on a dynamic relationship between a site, its specialized
researchers, and the public at large. And that public is changing. Today, formerly coherent ethnic, national, and cultural identities are in the process of transformation, with increasing globalization closely paralleled matched by the resurgence of regional, ethnic, and religious identities (Barber 1996). The historic districts of many cities have become home to struggling immigrant communities for whom the official epics presented by antiquities services and national monument administrations—and even the concept of a distinctive "national" identity—have a sharply different interpretations and, all too often, little practical relevance.

"Heritage" can indeed mean many things to many people in the multi-ethnic landscapes of the 21st century and the growing acknowledgment of the claims of non-academic, non-governmental heritage stakeholders such as community groups, religious bodies, newcomers, and diasporic communities for participation in the design and management of heritage sites implies an obligation not merely to homogenize all their separate heritage perceptions into a master narrative but to offer respect and dignity to a wide variety of approaches and perspectives on the past. It is evident that digital technology has the potential of increasing public access to heritage, not only on the development of ever more complexly created and scientifically documented presentations, but also to create information avenues of two-way communication, in which, alongside traditional archaeological and historical data, questions of relevance and significance of the past to the present are discussed.

For the value of the past is precisely to teach us new things, to offer difficult themes for public discussion and reflection. We must apply our technology to more closely monitoring current heritage practices and developing new forms of cultural communication programs—in which success lies not only in professional competence, technology and rational planning, but in the creation of lively local institutions, not static monuments—sustainable in the long run not because of how they look or what information they contain, but for how effectively they function as centers for common reflection, productive questioning, and historical awareness within every community. For this, a more inclusive vision—and infrastructure—is needed to facilitate serious and creative reflection in society at large.
And what of the places where heritage is in direct conflict? The legacy of narratives of promised lands and chosen peoples can make one warring party's proudest heritage an object of resentment and target for destruction by its adversaries. In our world, heritage has in some places become the battle banner of demagogues of ethnic exclusiveness and cultural purity, seeking to erase from the landscape and from public consciousness the diversity and complexity of human culture. We have seen the destruction of the Mostar Bridge in the battle for Sarajevo, the detonation of the Buddhas of Bamiyan, and the continuing historical conflict between Israelis and Palestinians over their heritage in a twice-promised land. How can technology help to restore or preserve pasts that are slated for selective destruction, with or without the consent of the governments concerned? Interoperability, I would suggest, is more than just a technological slogan. If integration of information is indeed one of the great potentials of digital technology, it is our responsibility to construct an infrastructure in which recognition and respect for the diversity and wholeness of human heritage is no less importance than the perfection of scientific techniques.

New data sources also have to be considered—beyond those functionally useful for academic research. Elements of intangible heritage such as folk traditions, music, dance, literature, foodways connected with heritage sites and historical cultures defy the standard organization or analysis of the production pipeline. In new analyses of ancient foodways and trading connections, the past has proved to be anything but static or pure. Waves of immigration, trading connections, and shifting networks of military alliances and commerce through the millennia have left a complex and multifaceted record of human interaction—and new understandings of what global, national, regional, and ethnic identity might include. All these factors are relevant to the reshaping of the heritage pipeline from a one-way process of production into an ongoing, multi-channel public discussion-informed by reliable and meticulous scientific investigation but also enriched by the feedback of a wide range of contemporary perspectives about the value and significance of the past. In fact, what I'm suggesting is the reconceptualization of the heritage pipeline to go beyond the confines of the popularization of scientific data to enrich collective memory.
From Education to Entertainment

Here in Europe, cultural heritage has always been an important element of the physical landscape-and reflection upon it, an essential component of European identity (Schama 1996). From Antiquity onwards, barrows, dolmens, megaliths, Roman fortifications, medieval castles, cathedrals, and the complex, distinctive palimpsests of urban architecture in Europe's various regions have been thoroughly absorbed into the rhythms, images, art forms, and folk legends of evolving European life. For centuries, official and popular perspectives chaotically, creatively coexisted; there was nothing that could be antiseptically identified as a "cultural heritage site". There were the mysterious forests and prehistoric earthworks that lived on as the abode of sprites and slumbering giants; there were churches and roadside chapels that served the rituals of Christian veneration and pilgrimage. There were the dominating castles and urban monuments of the rich and the famous that had a quite different impression on those who inhabited them from those who were kept outside. Yet they were all conspicuous elements on the landscape, in a mosaic of forms and meaningful reminders of the past's ever-presence to all members of European society.

Yet the gradual industrialization of significant parts of northern and Western Europe profoundly altered the historical landscape. The rise of archaeology and the the categorization of prehistoric archaeological sites into Stone, Bronze, and Iron Ages gave substance and seeming inevitability to the idea of technological progress that was even then transforming the continent through coal, steel, and steam (Hudson 1981). As cities grew, factories spread, and traditional agriculture was disrupted, the reminders of all earlier ages took on a new significance. With the rise of modern nation-states and national monument administrations, certain conspicuous remains of the past were classified, objectified, typologized and in a sense removed from their organic contexts-as protected cultural heritage sites. Through the 20th century, with the growth of mass tourism and civic ceremonies, the public presentation of historical and archaeological sites grew increasingly elaborate and was expanded to include historic re-enactments, expensive restorations and reconstructions, and official events and celebrations of distinctive national patrimony.
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(Kirschenblatt-Gimblett 1998).

Whether venerated on state occasions, transformed into national symbols, or overrun by gawkers, gapers, and holiday makers, the past remained a part of the present, but in a distinctly new guise. Tourist routes and networks of national monuments were linked to a master narrative that led to - and somehow explained - the realities of the present day. Since the presentations were usually commissioned and invariably subject to approval by national heritage authorities, conflicting public interpretations were usually separated by borders, with one nation's golden age (and its monuments) becoming its rival's most loathsome nightmare. Today this has been balanced, if not entirely overcome, by a new consciousness of global heritage and cultural tourism (Boniface 1993) and due to the increasing influence of the European Union, which has made efforts to incorporate formerly distinct national traditions into a common European heritage-one that helps to celebrate as much as actually create a new unified European reality (DG Education & Culture 2002).

Many styles of public presentation still coexist across the continent, from a local priest with a rusty key to a dark medieval chapel, to an isolated ancient tomb in an deserted agricultural field, to technical informational panels, costumed interpreters, and more recently multimedia digital technologies at the more popular and heavily-visited cultural heritage sites. Yet over the last twenty-five years or so, economic and political changes and waves of immigration have altered both rural and urban landscapes, many places throughout Europe and indeed throughout the world - particularly those where 19th century industries have crumbled or traditional agriculture has all but vanished - have turned to the lifeless material remains of the past as a resource for sale (Briedenhann & Wickens 2004).

The phenomenon is spreading. All across Europe, in recent years, heritage sites by the hundreds if not thousands have been valorised, glamorized, and relentlessly merchandised by regions, municipalities, local communities, and now even private management companies seeking to attract visitors and the prospects for economic development that they bring (Hall & McArthur 1998). Yet over the last twenty-five years, the physical structures of public presentation at many major archaeological sites have been
dramatically transformed. Governmental authorities and international development agencies have made substantial investments to convert important archaeological and historical sites into "sustainable" engines of local and regional economic development, in hopes of creating new "heritage attractions" that will offer local employment opportunities and stimulate interregional tourism and trade. Public funding programs like those of the European Commission's Interreg programs and Culture 2000 and the World Bank's "Framework for Action in Cultural Heritage and Development in the Middle East and North Africa" (Cernea 2001) have set standards-and offer substantial economic incentives-for governmental investment in the form, structure and even presentation design of major historical monuments and archaeological sites.

And here is the special connection to our own digital concerns: an increasingly significant proportion of public funding for the development of digital heritage is now motivated by these modern, economic strategies, in which the creation of multimedia visitors' centers is often an essential element. Borrowing design concepts from theme parks and interactive museums, the planners of even modest cultural attractions now utilize traditional didactic, museum-type presentations only when budgetary constraints mandate only the cheapest, no-frills displays. More creative and energetic interpretive solutions, such as interactive applications, computer 3D reconstructions, and Virtual Reality experiences are now almost always utilized in the refurbishing of monuments and archaeological sites when the project budget permits (Seaton & Bennett 1996). Great efforts have been taken to create stunning historical environments with a wide enough range of vivid images and impressions to satisfy almost every visitor's taste (Leask & Yeoman 1999).

Yet it is a mistake to see the new Information Age "edutainment" tools of interactivity and Virtual Reality as merely technological enhancements of time-honored archaeological tourism routines. As in earlier eras of heritage presentation, it offers a carefully constructed narrative of images and impressions, but this one is not meant so much with the mind as with the visitors' emotions and feet. It is carefully and consciously inscribed in the walking paths and in the circulation routes through ruins and exhibit spaces through the painstaking plan-
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ning of professional (and almost always non-local) site designers, whose expertise lies in state-of-the-art scenography rather than content. Through the shaping of the site's space and precise placement of informational panels and multimedia applications, a site visit consists of passage through a series of almost theatrical frames: from the parking lot, through the ticket booth, into the main reception and information area, along the marked or suggested paths of public interpretation with stops at informational panels and multimedia installations, then out to the shop and cafeteria, and then out to the parking lot again.

This increasingly standardized experience of cultural tourism has little connection with the content; sites with such different archaeological and historical significance as Knossos, Pompeii, Versailles, and Auschwitz share more than they differ in the parking lots filled with tourist buses, visitor centers, multimedia presentations, and above all, in the patterned behavior of visitation that this spatial arrangement creates. For in this age of increasingly self-supported culture, attendance figure and account books are the real tyrants. If the main objective of these development-oriented heritage presentations is to attract heritage consumers, interpretation can rarely afford to offer the kinds of serious and troubling historical reflections that are likely to drive holiday visitors away. Are we in danger of transforming heritage sites into just another leisure time product? What will be the social impact of a heritage that is designed primarily for entertainment, in which the digital technologies are designed to enhance the visitor experience? While some holiday makers are choosing to escape the daily grind in the mountains or the seashore, has the cultural heritage tourist merely learned to seek another pleasant and unthreatening destination: exchanging the uncertainties and worries of the present for the comforting stability of a virtual past?

Conclusion: ICT and Collective Memory

Our digital imaginings of the past—both scientific and creative—can serve a vital role in the shaping the future. The key linkage between interpretation and preservation lies not only in professional creativity, technology and rational planning, but also in the intensity and honesty of interaction with outside visitors and the local community and in the depth of commitment to cre-
ating a sustainable memory institution, rather than a "heritage attraction"- sustainable in the long run not because of how it looks or what information it contains, but for how it functions within the community. We are - or should be- aware of the changing social context of heritage itself. It is no longer enough for scholars to excavate sites and make no effort to disseminate their results in some form to the general public; it is no longer enough for conservation experts and planners to deal only with abstract questions of original fabric or technical architectural history; it is no longer enough for digital heritage technologists to deal only with the technology. The goal should now also be to involve the wider public directly and personally with the remains of past cultures not only to convey scientific information, but also to enhance shared historical understanding and enrich contemporary identity.

Much has been done in recent years in the field of digital heritage, and even greater achievements lay ahead. As cultural heritage professionals interested in the use of ICT for site presentation and interpretation, we can perhaps therefore make our greatest and most enduring contribution not only by improving the inner workings of a unidirectional production pipeline-in which the focus is usually placed on the internal arrangement of data-by helping to construct an open and free flowing neural network of shared global memory that facilitates reflection about the past's evocative, enigmatic, and enlightening material remains.

That is the wider goal that scholars and cultural heritage technologists should aspire to—a social attempt to understand where we are in time, what brought us to this point both in tragedies and triumphs, and what parts of it we should to pass down to our children as a link in a continuing chain. In a word, it is an overall understanding of why the Past is important no less than what it is. The quest by digital technologies for every greater precision and wider data must therefore be understood in its proper perspective as part of modern culture, not a safely insulated research concern. If we concentrate on technological precision and remain unconnected or unaware of the past's broader role and function in society, we will always be chasing phantom visions of unchanging essence, rather than trying to understand and encourage the creativity of collective memory in all of its evolving forms.
For as we move through the early decades of the 21st century, in a world in which the remains of the past are subject to both unprecedented attention and unprecedented neglect and destruction, the recognition of usable, digestible heritage values can only be encouraged by a commitment to inclusive, community-based interpretation, in which formalized presentations are only a part. The process rather than the product—the civic discussion rather than the formal presentation—is the key not only to the goals of conservation and education, but to a broader understanding of who we are as a global community of cultures, where we are going, and from where we have come.

References


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