



Editor:
Jaime Almansa Sánchez



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EDITORIAL

Public Archaeology in debate

Jaime ALMANSA SÁNCHEZ, Editor
JAS Arqueología S.L.U.

Piece by piece this journal is growing. That is why, before saying anything else, we need to thank every follower and collaborator for being there for us. Volume 2 comes full of new ideas, projects and perspectives on Public Archaeology.

During the past few months I have struggled with the crisis and Spanish archaeology. Both have been tough to deal with and none has been resolved yet. It is a fact that current management models are in a crisis, and we need -in some countries more than others- to rethink and redefine our role as professionals and adapt to this changing world. It does not matter if we work in the public or the private sector; archaeology has become a commodity whether we like it or not, and its value is not what we usually expect. One of the main roles of Public Archaeology is to design a more efficient and sustainable practice, keeping in mind the social role of our work and our responsibilities towards Heritage.

In this volume, alternative archaeologies, new forms of communication with the public and with other professionals, as well as the threats posed by these issues, fill the following pages.

First of all, the role and dangers of Public Archaeology are discussed in two forums. In this new section of the journal, current debates of interest for the discipline will take place, with the participation of established as well as new researchers worldwide. Therefore, we encourage you to propose topics, no matter where you come from. This volume introduces the first forum, led by Tom King, about the dangers of doing Public Archaeology. In it, we are able to encounter different conceptions of our work, as well as some important issues to take into account when working. The second forum focuses on an event that took place last winter: the lecture of Semir Osmanagic in Linnaeus University. What are the limits of our approach to alternative archaeologies?

In this volume I present a short paper on our relations with alternative archaeologies, or how to 'fight' them. Also, this volume's Points of You is the story of a 'turned' pseudo that today is a great asset for archaeology.

The next two articles deal with new technologies used for archaeology. The first one is about an innovative experience in Philadelphia; the use of a "10 meter-tall LED light marquee encircling the 27th floor of a city skyscraper", making sure everyone gets the message. In the second, Nicolas Laracuenta explores the world of Twitter and the possibilities it offers for communication in archaeology, in and outside professional networks. We have to be aware of all the developments in social media and be imaginative to use these resources for our own good and the good of archaeological heritage. Recently, many initiatives have arisen, adapting new ideas and technologies, such as crowdfunding, probably one of the most interesting in this climate of cuts. As I am writing these lines, two new projects are being implemented: digventures.com and commonsites.net (please visit both). It is still early to see their impacts, but we need to be positive.

But how do we see Public Archaeology? To close that circle, Doug Rock-Macqueen explores with a survey our conception of public outreach and education in archaeology (one of the sides of Public Archaeology).

If last year we lacked reviews, this volume comes with eight. Starting with three interesting (hand)books, we are able to explore various examples of Public Archaeology practices around the world (Okamura and Matsuda's *New Perspectives in Global Public Archaeology* and Skeates, McDavid and Carman's *The Oxford Handbook of Public Archaeology*) and a concise review of archaeology by Martin Carver in *Making Archaeology Happen. Design versus Dogma*. Next, is the future of Spanish Archaeology (*El futuro de la arqueología en España*), a book edited by myself with the participation of another 44 professionals, followed by the new edition of Praetzellis' "novel" (*Death by Theory. A tale of mystery and archaeological theory*). *Archaeology 2.0* (Kansa, Kansa and Watrall) takes us back to the web and the digital media that are also being discussed in the session thereon celebrated in the last TAG in Birmingham. Finally, Daniel Saucedo reviews the first International Symposium on Public Archaeology which took place last September in Peru.

This year's volume is double in size thanks to your participation. For the coming years, we hope the journal keeps growing in quality and content. At least, for the time being, we can ensure a third volume.

Looking back into the recent past, we celebrated our first year of existence with a small contest: "What makes #pubarch important?" Gabriel Moshenska won with his 50-words answer:

"Public archaeology is the study of archaeology in context. This includes social, political, economic and intellectual contexts: a big responsibility for a little sub-discipline. Archaeology is produced and consumed: by studying these processes in all their dimensions public archaeologists are the conscience of the discipline. We are all public archaeologists."

Looking at the present, we hope you will enjoy this new volume, and looking to the future, we hope to see you again next year.

Before closing this editorial, we should make 4 fast announcements (again):

1. Call for debate:

Our Facebook page has been changed twice since last year. We do not see it very open for debate right now, and our experience on creating debate in the web has not been very positive besides few examples. But sometimes, debates happen online. Both forums this year started in the WAC mail list and several blogs. That is why I would like to encourage you to participate in debates, wherever the action is, and if you find a topic interesting, bring it to the journal.

2. Call for papers:

After Volume 2, Volume 3 will be published in 2013. We still have an open call for papers, which you can submit whenever you prefer. As publication in January seems a utopia, we have set March as the publishing month. Anyway, we need to keep the deadline for submissions in autumn in order to have enough time, especially if the number of papers received keeps increasing. We hope to receive new papers as soon as possible, which will give us time to work patiently. For any suggestions, or if you have any doubts, email us.

3. Call for specials:

We will also be publishing special issues focusing on different topics. Our first call is for the AP Journal Special Issue titled "Public Archaeology in vast infrastructure works", for which we are looking for papers on the archaeology conducted in mega-constructions, such as airports, undergrounds, highways, etc., from the perspective of Public Archaeology in any of its aspects (political and economic issues, education programs practiced, management, etc.). We encourage you to participate in it if you are in some way related to any relevant project. In the past year, it was quite difficult to find papers, so please forward this message and participate. Submissions will remain open until we have enough material. If you have any questions or doubts, once again, please do not hesitate to contact us.

We will also gladly accept new proposals for other special issues. You can suggest a topic and we will decide and agree the terms, always according to the rules of the journal. We have already accepted a proposal for a volume devoted to Didactic that will be promoted soon. So, if you have in mind a volume with a subject related to Public Archaeology, please contact us and we will consider it.

4. Call for donations:

As long as *JAS Arqueología* is alive, it will take care of this journal. As you already know, AP is a free-access and not-for-profit journal. Thus, maintaining it is expensive, both in money and time invested. The philosophy of the journal is to provide the widest access at the lowest cost, but in order to not only improve the quality and efficiency of the content, but also continue its publication, there is a need for funding that depends on you. Donations of any amount will be truly appreciated. This year we would like to once again warmly thank Giannis and Vicky for their generous donation, which is helping a lot to ensure the near future of the journal. We also wish to thank Mayca Rojo, who joined the list of donors this year.

Your contribution will make the future of this journal possible.

Remember there are two ways of contribution:

- Direct donation via Paypal on our web page.
- Purchase of the paper version. There will be a fixed price of 30€. Just ask us.

FORUM

Is Public Archaeology a menace?

Thomas F. KING

Public Archaeology is a Menace to the Public – and to Archaeology

Introduction

*"You can dig a big hole, and you dig it wide;
Try to show the people what it's like inside.
Something for you; something for me;
All you gotta do is come down and see!"
(Old Tom King, a song by Ron Melander ca. 1971)*

So sang my friend, colleague, and then-office manager Ron Melander in about 1971, in a song he wrote about me. I quote it here to help establish my bona fides in "public archaeology." I began my career as an amateur archaeologist (some would use less complimentary terms) and am now engaged in ending it similarly. In its course I've worked as an academic and applied professional archaeologist, often -if not always- with a strong tilt toward public involvement, participated in the development of "cultural resource management" (CRM)¹, worked and published in that milieu, and incidentally was involved in U.S. archaeological politics at the time when C.R. McGimsey more or less invented the term "public archaeology" (McGimsey 1972). I had qualms about the term then, and I have qualms about it now. I want to explain why.

In essence, it comes down to this: much of what is done in the name of "public archaeology" is done in the context of defining and addressing the environmental impacts of modern development and land use. Most legal systems under which environmental impact assessments (EIA) are done give far more attention to archaeological sites (and historic architecture, monuments, and the like) than they give to other cultural aspects of the environment. Yet those other aspects

¹ A term whose ill-defined character has been even more damaging to the public interest than that of "public archaeology;" see King (2011: 2) for discussion and what I think is a responsible definition.

of the environment may be far more important to “the public” – in the sense of real people who live in or otherwise value that environment – than are archaeological sites. “Public archaeology” (like “CRM” and several similar euphemisms used by archaeologists) can be and often is misunderstood by those performing EIA or acting upon EIA’s findings – and by its practitioners themselves. The misunderstanding lies in the belief that by addressing the concerns of archaeology with a given proposal (for a dam, a highway, a power scheme, whatever), we have addressed “the public’s” concerns about impacts on the cultural environment. As a result, projects go forward with some measure (often a large measure) of attention to the interests of archaeologists, while effectively ignoring those of the public. This is damaging to the public interest, and it is also damaging to archaeology, because in the end it erodes the public’s support for what we do.

Definitions, Definitions

The problem largely lies in how “public archaeology” is defined and how we act with respect to our definitions.

An Innocuous Definition

One definition of “public archaeology” might be: “the practice of archaeology with significant public participation”. We invite the public to visit our field sites; we explain what we’re doing; we make arrangements for them to work with us in the field, in the lab, in analysis and reportage. We put together exhibits; we give public lectures; we help compose public brochures and websites; we make movies.

I see no problem whatsoever with “public archaeology” as thus defined; I think it is what we all ought to do, on virtually any archaeological project in which we engage.

A Slightly More Questionable Definition

We might also define “public archaeology” as “the practice of archaeology addressing matters of interest to the public”. I am thinking here of community-based (and other) archaeology programs that structure their studies around things in which the public is ostensibly interested. The study of the African diaspora, for example, is clearly of interest to (among others) the descendants of enslaved Africans; its archaeological pursuit is arguably “public archaeology”. What makes the definition a bit tricky is that what is of interest to one “public” may be objectionable or offensive to another (consider the sometimes divergent interests of Israelis and Palestinians in the archaeology of

their shared homeland). This doesn't make such archaeology any less "public", but it does require that archaeologists think through the range of public interests to which their work may relate.

There are doubtless other ways to define "public archaeology", with different implications, but let me turn to the one that I think is particularly problematic.

A Damaging Definition

Explicitly or (more often) implicitly, "public archaeology" is defined as "archaeology performed with reference to public law, regulation, policy, or programs". Thus, we understand ourselves to be doing "public archaeology" when we do surveys and other studies in advance of proposed construction or land use projects, under whatever environmental and historic preservation laws require that the impacts of such projects be considered. We also may understand ourselves to be doing "public archaeology" when we work in government agencies or ministries that oversee or conduct such work.

This would not be a problem if we stuck to archaeology and if other cultural aspects of the environment were routinely dealt with by other experts in consultation with the concerned public, but unfortunately this is often not the case.

What Happens

What happens is this:

1. The laws, regulations, policies or guidelines under which a project's environmental impacts are assessed include some sort of vague reference to addressing impacts on "cultural resources" or "heritage". Or they may not; they may only require that impacts on historic places or monuments be addressed.
2. The people and organizations responsible for EIA on the project scratch their heads a bit and turn to those they perceive to be experts in such things – the "public archaeologists".
3. The public archaeologists say, "Right, then please give us some money and we'll go do a survey, find the sites your project may mess up and advise you about how to avoid destroying them or mitigate the impacts of doing so by digging them up". All in the public interest.
4. This (in some form, to some extent) is done.
5. Nobody asks what else of a cultural nature may be threatened

by the project. If the question were asked, the answer might be “quite a lot” – for example:

- a. The ongoing traditional ways of life of resident or nearby communities;
- b. Spiritual beliefs about the landscape and its elements, and practices associated with such beliefs;
- c. Traditional uses of and beliefs about plants, animals, water, minerals;
- d. Culturally valued visual, auditory, and olfactory aspects of the environment;
- e. Language, which may be intimately related to or affected by the land and its uses;
- f. And many other things.

6. Because they don’t ask and they assume that by turning things over to the public archaeologists they’ve taken care of “culture”, the project planners go ahead with their EIA without considering any of the above variables, or without considering them very thoroughly.

7. The project is then found to have tolerable impacts on the environment, and is officially approved.

8. If “the public” finds a way to complain about being ignored, the project planners are puzzled and say “but we’ve dealt with these issues; we worked with the public archaeologists”. The public archaeologists usually don’t say anything.

9. The project proceeds, with little or no consideration of non-archaeological cultural issues.

The Results

There are three results of the process outlined above.

First, some rather significant cultural interests in the environment may be ignored and destroyed or altered without due consideration, despite what may be substantial public interest in them. It is because “public archaeology” as widely practiced in essence connives in this ignorance and destruction that I call it a menace to the public.

Second, the public (or publics) whose concerns are ignored come to view archaeologists (if they view them at all) as part of the problem. The archaeologists have come in and dug up the village before the

dam-builders or highway-builders did; they were, in essence, the tip of the development spear. The project may even have been designed to serve public-archaeological interests – for example, to open up an avenue of sphinxes or the site of an ancient palace for development as an archaeological park. The archaeologists have often hired local people to assist in what those local people see as the destruction of their heritage. At best, this does not build public support for archaeology; at worst it erodes it. This is one reason I suggest that public archaeology can be a menace to archaeology. Another is that by in essence jumping into bed with development interests rather than finding common cause with concerned elements of the public, we often let archaeological sites be destroyed, that might be saved had we formed alliances and worked harder to protect the overall cultural environment.

What To Do About It

I do not mean to suggest that archaeologists – public or otherwise – should stop being archaeologists, call themselves something different, or go out and develop expertise that they don't have (though these things may sometimes be desirable and happen to be what I have done). I do suggest that:

1. Public archaeologists should be honest about what they – we – can and cannot do, and are not responsible for doing. When asked to deal with the impacts of a project, if all we are equipped to do is archaeology, we should make this very clear to those who seek our services, and try to avoid the assumption that we are going to do more.
2. We should encourage the development and employment of more comprehensive approaches to identifying and addressing the modern world's impacts on the whole cultural environment, in effective consultation with the publics that value aspects of that environment².
3. As public whatevers – archaeologists, anthropologists, cultural resource people, cultural heritage experts – we should do everything we can to make sure that the public in all its diversity is fully involved not only in our work but in the broader studies and planning to which our archaeology may contribute.

July 2011

² See <http://www.cbd.int/doc/publications/akwe-brochure-en.pdf> for one such approach.

Responses

Carol McDAVID

Response to Tom King's "Public Archaeology is a Menace to the Public"

I read Tom King's paper with great interest, having been a fan of his work for some time. I read it, assign it to students, and frequently give copies of his 2009 *Our Unprotected Heritage: Whitewashing the Destruction of Our Cultural and Natural Environment* to community collaborators and clients. Even though I spend most of my professional time in the non-profit and academic archaeology arenas, my most recent work has involved collaborating with both CRM and SHPO archaeologists on a variety of projects and policy initiatives. Therefore, I have some understanding of the issues he raises, even though I do not "do" what is known as Cultural Resource Management (CRM) archaeology.

Tom is correct when he states that "the problem largely lies in how 'public archaeology' is defined, and how we act with respect to our definitions". The problem I have, however, is with his chosen (for the purposes of his argument) definition of public archaeology as "archaeology performed with reference to public law, regulation, policy, or programs". He is apparently defining public archaeology as CRM, when in fact it is, in today's world, far more than that.

I would agree that this definition was accurate until the early 1990's (as he points out, the term was coined by McGimsey in 1972). It is important to note that during the beginning days of CRM, despite the widespread use of the term "public archaeology", there was little public input in the archaeological work itself. Nor was there much indigenous, descendant or local community input as archaeological sites were excavated or interpreted. During this period most work with "actual" publics, when it existed at all, was overtly *educational*, and its primary aim was to convince the non-archaeological public that saving archeological sites was important.

Changes to this view began to emerge in the late 1980s, with the most momentous early benchmark for discipline-wide change (in the United States) occurring with the 1990 passage of NAGPRA (the Native American Graves Protection and Repatriation Act). The law was limited in many ways, as we all know, but the key point here is that during this period the meaning of the word "public" in "public archaeology" began to shift. It began to include diverse *living publics*. Archaeologists working

with indigenous remains were (in some contexts, anyway) obligated to take the opinions of descendants into account – and their methods and interpretations began, slowly, to reflect this. Even though one major shortcoming of NAGRA was the limited definition of “descendants” as documented, lineal descendants, it did drive important discipline-wide cultural change in terms of “public archaeology”.

Similar shifts also began to emerge in U. S. academic historical archaeology with the “critical archaeology” work that Mark Leone and his students (especially Parker Potter) initiated in the late 1980s and early 1990s. This work spawned an entire generation of scholars who are still pushing the boundaries in public archaeology. However, in terms of CRM models, the most important transformations came about because of the African Burial Ground Project (ABG), which took place in New York City in the early and mid 1990s. The public uproar over human remains found at this site, and the public debate about how to excavate and interpret them, continued into the decade and established new understandings of the words “descendant”, “community” and “client” within archaeology. Despite the fact that NAGPRA did not apply, the *cultural* descendants of those buried at this site were successful in gaining control over how their ancestors’ remains were excavated and interpreted. Even though there is still no NAGPRA for non-Indian lands, the ethos that drove NAGPRA (and emerged from it) is now commonplace in many archaeology projects across the United States – other than, interestingly, most “everyday” CRM work, where for the most part King’s critique is still entirely correct. This is not to discount a few major projects (such as the recent President’s House project in Philadelphia) – but they are exceptions to the norm. Even so, the ABG project had tremendous influence in archaeology generally.

As these changes have occurred in the U.S., similar shifts were occurring elsewhere, and a variety of post-colonial and global justice movements have played important roles in how archaeology and public archaeology are framed today. A major milestone in the global arena was the 1986 founding of the World Archaeology Congress, in part as a response to apartheid. Over the last two decades there have been key developments within governmental, non-governmental and scholarly arenas, all of which have been part of an ongoing global process of re-imagining how archaeological work can, and should, intersect with public interests and needs. As this has occurred, the term “public archaeology” has expanded in meaning, and it is fair to say that now many archaeologists, worldwide, conceive of public archaeology as something along these lines:

any endeavor in which archaeologists interact with the public, and any research (practical or theoretical) that examines or analyses the public dimensions of doing archaeology.

It is important to note that those who do this sort of work may identify themselves in various ways – as archaeological ethnographers, or heritage professionals, or applied anthropologists, etc. – even though their work is just as often characterized as “public archaeology” in case study volumes. A key feature of this definition is that its emphasis is not only on practice, but also on research, and much of this research is aimed precisely at the questions King raises – that is, those who call themselves public archaeologists are thinking “through the range of interests to which their work may relate”. Another feature of the most recent work is that it tends to cross the usual disciplinary lines – arguably more so than earlier “public archaeologies”, which tended to be situated within the typical geographic and temporal discourses (such as prehistoric archaeology, classical archaeology, and historical archaeology). In the past, for example, a typical historical archaeologist/public archaeologist might not have been conversant with the public archaeology work done by an Egyptologist, or a prehistoric archaeologist, or an Africanist, because they read different journals, went to different conferences, and so on. This is not as true today, and as this has evolved, particular methods and approaches common to “public” work in general have begun to emerge.

This short response does not include citations (there are hundreds now available), but one easy pointer to the newer work is to examine the international journal, *Public Archaeology*, which began publication in 2000. The masthead states that the journal provides:

...an arena for the growing debate surrounding archaeological and heritage issues as they relate to the wider world of politics, ethics, government, social questions, education, management, economics, and philosophy. Key issues covered include: the sale of unprovenanced and frequently looted antiquities; the relationship between emerging modern nationalism and the profession of archaeology; privatization of the profession; human rights and, in particular, the rights of indigenous populations with respect to their sites and material relics; representation of archaeology in the media; the law on portable finds or treasure troves; [the] archaeologist as an instrument of state power, or catalyst to local resistance to the state.

By scanning the pages of this journal, one can find public archaeologists who work in a variety of fields, including but not limited to education and curriculum management, heritage management, new technologies, the academy, politics and legislation, ethics, journalism, performance, museums, tourism, as well as commercial contract archaeology. These people do both qualitative and quantitative research about the public perceptions of archaeology, how pasts are created and used, and the conflicts between academic and popular views of the past. They deal actively with the political, social and economic contexts in which archaeology is undertaken, the attitudes of disempowered and indigenous peoples towards archaeology, and the educational and public roles of the discipline. In short, public archaeology defined in this way is an arena in which past and present merge, as information about the past is used by contemporary people for contemporary agendas and needs.

Before closing, I would like to address a particular issue that was raised in a recent internet conversation about King's paper, and this had to do with whether "public archaeology" is "archaeology". My answer would be yes – *if* the public archaeologist is trained as an archaeologist and is doing the work within an archaeological context. This is like any other archaeological specialty – would someone say that a GIS specialist with an advanced archaeology degree was not doing archaeology when s/he was surveying a site? Or that an osteologist with a similar degree who was examining the bones from a site was not "doing archaeology"? Of course not, even though GIS and osteological skillsets are also used in other disciplines. Public archaeology should be seen as just like any other specialty – if it is done within an archaeological context by someone with an advanced degree in archaeology, it is archaeology.

For example, like most archaeologists, I have training in several archaeological specialties (in my case – public archaeology, archaeological theory, historical archaeology and African Diaspora archaeology). However, I also have training in writing, public relations, marketing, museum management and agency administration, all of which are useful in my particular public archaeology practice. This work includes putting together community meetings, writing materials for the public, doing basic research about different aspects of public interaction, setting up media interactions for field projects, participating in public policy planning, assisting with museum displays, conducting ethnographic and oral history interviews and giving public talks and tours. It also includes writing about those forms of practice –

analyzing them, drawing conclusions, etc. In short, it is both practice and research.

However, in order to do this work properly, within archaeology, I first had to obtain the basic training that any archaeologist should have (field training, archaeological history, theoretical training, etc.). Then I had to make sure I had the training to do the public archaeology work as well. Public archaeology is like any other archaeological specialty – it requires training to do it properly, but, like other specialties, it is archaeology.

To close, Tom King is both right and wrong. In his critique of a certain area of “public archaeology” – CRM – he is right and his critique should be required reading for anyone going into the field. He is wrong (and hugely unfair to scores of researchers today) to restrict his definition of public archaeology to “only” one realm of practice.

Cornelius HOLTORF

Comment on King

I have no experience with American CRM but I am employed by a University in Europe, consequently lacking much of the background and experience on which Thomas King’s argument is based. From my European research and teaching perspective, however, public archaeology is not a particular form of archaeological practice related to public participation, interests (plural) of the public or indeed the public interest (singular) represented in laws and regulations. Instead, I see it as a field which studies practices by which archaeologists engage with society at large. I like Nick Merriman’s (2004: 5) formulation that “public archaeology opens up a space in which to discuss ... the processes by which meaning is created from archaeological materials in the public realm”. To me, King’s argument therefore does not address public archaeology directly and the title of his polemical comment appears as somewhat ill-chosen for non-American audiences.

King discusses a number of issues that characterise the way archaeology appears to be practised in the planning process in the U.S. and how this affects in different ways both academic archaeology and the public in the same country. I am very surprised to read that apparently this process does not include any public consultations in relation to developments plans. Such consultations would precisely

bring to light any kind of local values or other concerns about a given project, so that they could be answered or addressed. For example, a couple of years ago the local Town Council's development plan for the area in which I live in Sweden was made public and presented in several local meetings. It received so much criticism from the local population that the Council was compelled to revise it thoroughly (though as it happened, archaeological concerns did not come into it at all.) Quite possibly, I misunderstood what King actually meant.

Finally, King does not appear to allow in principle for CRM to be justified when it does not involve the local population. Although I broadly agree with this democratic sentiment (Holtorf 2007), I am also aware that in modern democracies state authorities very commonly represent the public interest. This is achieved by way of expert authorities which usually act independently of both politicians and the public and on the basis of their own specific expertise alone. Although good public relations are of course important for all such authorities, the quality and legitimacy of their work cannot be determined by public surveys alone. In other words, it is nice but not necessarily essential for the local community to enjoy and support a CRM project carried out by experts and fulfilling demands made by legislation.

In sum, I fear that I may not have addressed the specific issues King wished to raise. My task may have been easier if his paper had been presented in a clearer and more elaborated way.

Antonio VIZCAÍNO ESTEVAN

What menace? Beyond the Archaeological Heritage Management

One of the challenges of Public Archaeology –and of Archaeology in a broad sense– is to effectively deal with modern development and land use projects. It constitutes a major challenge because there are very different stakes –economical, political– linked both to public institutions and private companies, which very often implies, on the one hand, little time to address environmental impact studies and, on the other hand, impersonal archaeological processes of study and evaluation. In the end, Archaeology gets bureaucratized, as Faulkner (2000) argues, becoming a simple and standardized procedure that is carried out not because of a real scientific or public interest, but because of a particular legal framework.

In countries like Spain, where Public Archaeology practices are not usual –if they exist at all- (Almansa 2011), the situation is even worse: besides time and official stakeholders' pressure, community involvement does not exist, not only in aspects concerning archaeological research and fieldwork, but also in decision-making.

The process becomes, in this way, a simple data-collecting labour with the sole purpose of fully justifying the accomplishment of the environmental impact study; a pile of archaeological data that, at best, are used in order to fill the pages of a scientific publication –completely out of non-professional possibilities- or, being extremely optimistic, as part of information panels if one of the archaeological sites is lucky enough to be preserved and presented to the public.

Nevertheless, we should include these practices in what one might call 'standardized' Archaeology. In other countries, like the USA, there is a long tradition of involving local communities, especially during the archaeological dig, in the framework of the well-known 'cultural resource management' (CRM). However, taking into account the reflections of Thomas F. King in 'Public Archaeology is a menace to the Public – and to Archaeology', Public Archaeology practices are considered to be damaging to the public as long as they only look for the interests of Archaeology, leaving other cultural heritage resources aside. Often these other cultural heritage aspects are more related to local communities than the archaeological record itself, so if they are not taken into account or, moreover, if they are neglected and destroyed due to the lack of consideration on the part of archaeologists, then negative consequences for Archaeology and its public image should be expected. Is, therefore, Public Archaeology a menace to the public, as King says?

Personally, I do not think so. As Schadla-Hall (1999) proposed in the late 90's, Public Archaeology is concerned with relations between Archaeology and the public, that is to say, it stresses every aspect of people's daily lives in which Archaeology has something to say. This means that the discipline tries to go beyond the traditional discourse of heritage management and opens the way to fields where there is an important economical, political and social component, which increases, consequently, the scope of action. This is because the main goal of Public Archaeology is to strengthen links between Archaeology and society, encouraging the utility and meaning of Archaeology to people's real lives; in other words, to claim the social use of Archaeology. From that point of view, the public –not the archaeological object- is the

main character, and that is why Public Archaeology cannot be seen as a menace to the public.

Actually, Public Archaeology has the chance to help, through archaeological heritage management and its several possibilities –law, fieldwork, interpretation, outreach, local development-, solve greater or minor controversial and in-depth problems that exist in our society. This can happen regardless of whether the problems are concerning heritage issues –either archaeological, ethnographical, environmental or whatever-, social and political aspects –historical conflicts that are not yet over, social justice, historical memory- or economical and local development; or all of the above at the same time, because it is not always easy to separate them.

And this does not mean that Archaeology is exceeding its possibilities and its fields of action. Why do we have to prevent Archaeology –if it is in its ‘hands’- from acting on fields that are apparently –but not really- out of its limits, if by doing so we can improve the situation of the affected community? This is, in my opinion, what Archaeology should do when an environmental impact study has to be conducted: knowing the needs and interests of communities in connection with the project and practise Archaeology according to these indicators. If management of local archaeological resources can be used in order to address such needs, even if they are not directly related to those resources, any initiative in this way should be welcomed. The important thing is to develop inclusive and participatory practices in order to know what the real impact for local groups is, promoting less damaging actions and, at the same time, a civic enrichment and a better understanding between people and their environment and heritage –and, of course, between people and Archaeology.

Naturally, environmental impact studies of modern developments should be carried out by specialists in every field, as King says, and in collaboration with local communities, because by doing so a better and more complete assessment of people’s needs could be achieved; we cannot forget, among others, the importance of ethnography for this kind of practices (see Pyburn 2009, Hamilakis and Anagnostopoulos 2009). However, this does not necessarily imply doing an inappropriate cultural and environmental management when the study is developed from Public Archaeology.

In the same way as, for example, a project carried out through an environmental perspective can facilitate the preservation of archaeological resources, or an ethnographical research can call for the

recovery of an archaeological site or a historical monument due to its importance in a cultural landscape –and, therefore, in the everyday life of the local community–, Archaeology can contribute to the preservation of other cultural values.

From this point of view, how can Public Archaeology be damaging for the cultural values of a group? Seeing Public Archaeology as a menace to the public means, in my opinion, not considering a broader and more complex definition and sense of what Public Archaeology is and can do –a broad definition that would include, at least, the three definitions for Public Archaeology given by King, even the ‘damaging’ one, relegating its intervention exclusively to the archaeological field –what King associates particularly with the ‘innocuous definition’ of the discipline– and acting on behalf of a kind of self-satisfied position that seeks above all for documentation and preservation of archaeological resources. That is when Archaeology leaves aside its real addressee, the public, and acts driven by other economical and political interests. Moreover, this fact constitutes the real menace to the public and, consequently, to Public Archaeology.

Instead of doing that, Archaeology has the possibility of becoming a means by which people can address their interests, aspirations and needs regarding their environment and their cultural heritage, what can be especially useful in situations like those related to modern development and land use projects, where local groups are not often taken into account by builders, developers and authorities.

If archaeologists are required to carry out an environmental impact study, and through public archaeological practices –with specialists and particular conditions– it is possible to channel people’s voice, let’s do it. Let’s defend Archaeology as a useful tool for social, political, cultural and economical development on a more human scale, as Pyburn (2009) says. Let’s claim for the social value of Archaeology and all its possibilities.

Gabriel MOSHENSKA

The Many Faces of Public Archaeology: a Response to Thomas King

I sat down to read Thomas King’s article with a sour expression on my face and a chocolate cake in my hand to cheer myself up. In practicing, studying and teaching public archaeology over several years I have encountered any number of attacks and criticisms of the field,

from hardened fieldworkers who considered it a sissy activity, to *haute*-theorists who considered it banal and under-intellectualised. At the same time I had long regarded King as one of the most thoughtful writers on archaeological issues, with a clear-sighted view of archaeology's place in the wider world, and a well-honed bullshit detector. Bluntly, I expected better from him than a cheap attack on public archaeology as a 'menace'. Fortunately, it turned out that the body of King's article belied the title, offering a carefully constructed and nuanced argument and raising a number of very important points. I ate the chocolate cake anyway.

King's paper engages with one of the most annoying problems in public archaeology, that is the definition or boundary of a discipline that has of late become a buzzword. Monstrous injustices have been committed against both the public interest and the archaeological record in the name of public archaeology, and King is right to take up arms in defence of the more worthwhile elements of the subject. At the same time he recognises the uncomfortable truth that what is good for the public may not be good for archaeology – and vice versa. King's paper has helped me think about public archaeology in a more critical and productive manner, but he has also inadvertently highlighted flaws in my own attempt to define the discipline (see Moshenska 2009), and for this I am extremely grateful.

The three definitions of public archaeology that King notes are a useful diagnostic tool. The *innocuous definition* focuses on public engagement with archaeology – a useful concept to work with and an area where much good work is carried out. However, I would argue that engagement or public outreach is just one component of public archaeology. The *questionable definition* of public archaeology is analogous to what we in the UK have come to call 'community archaeology'. The problem that this raises is the unhelpfully vague and inclusive term 'community', which is rarely defined with great care and frequently becomes divisive and problematic when funding or research priorities privilege one 'community' above another. The *damaging definition* of public archaeology is what I would call 'public sector archaeology' – where the only interaction with the public is through their elected representatives. This is archaeology at its most alienated from the public.

I have previously envisioned the relationship between archaeologists and the public as a commodity relationship – archaeologists are the producers of archaeological commodities (labour, knowledge, skills), and the public are in various ways the consumers.

Most of the problems in public archaeology, I had assumed, were due to a disjuncture between supply and demand based on a failure of communication between the two sides. King's paper has highlighted one of the (many) flaws in this model: there is a considerable amount of archaeological material for which there is currently no strong public interest, indeed little enough interest within archaeology. If we are to subordinate or align our research priorities to public demand alone we will be poor and irresponsible archaeologists. Of course, in a more sensible model for archaeological practice the public or publics form one amongst several stakeholder communities, which a mature, reflexive archaeological discipline can take into consideration. But this is an archaeo-centric perspective, as King has so rightly noted: we need to consider the public's interest not only in archaeology, but to the wider fields of planning, development and the study of the human past to which we contribute. In this sense, King's closing statement stands as a brilliant manifesto for public archaeologists: "we should do everything we can to make sure that the public in all its diversity is fully involved not only in our work but in the broader studies and planning to which our archaeology may contribute". I can't argue with that. Now, back to that chocolate cake.

Thomas F. KING

A final response

Rather than a point-by-point response to the thoughtful comments of Moshenska, McDavid, Vizcaíno Estevan, and Holtorf, let me try to offer a general clarification and then provide a real-world example of why inadequately reflected-upon "public archaeology" is menacing.

First the clarification. I am all for involving the public in archaeological work (the innocuous definition of public archaeology), and I support doing archaeology that is relevant to the public (the slightly more questionable definition); I have done them both, and continue on occasion to do them today. I do think that, in doing publicly "relevant" archaeology, we need to think about what "relevance" entails, and about how much bias is acceptable in favor of one public over another. But my main concern is with the more damaging definition of public archaeology as "archaeology performed with reference to public law, regulation, policy, or programs". McDavid appears to think this concern to be outmoded, and it simply does not resonate with Holtorf, but I

think it remains a serious issue, upon which those who call themselves “public archaeologists” need to reflect. A major reason I wrote my paper was that I recently attended a conference in Beijing, where “public archaeology” as originally formulated by C.R. McGimsey III was extolled as a model for practice in Asia. The dangerous definition of the term is alive and well in the world, and I think those who use it should think about the implications of doing so.

Now, to my example. I am currently working with an American Indian tribe in the western United States. The tribe finds plans advancing apace for the construction of a large wind energy project in the midst of a landscape – controlled by a U.S. government agency – which its people greatly value for cultural/spiritual reasons. The tribe is having a great deal of trouble getting the project proponent or the government land managing agency to understand its concerns. Why? In part because the agency and the proponent think they are dealing with archaeology. As an automatic part of their environmental impact assessment work, they have sponsored archaeological surveys and insist (probably untruthfully, but that is another issue) that they have designed the project to “avoid” all the “archaeological sites.” They cannot seem to understand why this does not satisfy the tribe. But to the tribe, avoiding all the archaeological sites, even if it were really done, would be rather beside the point. The tribe is concerned with the overall landscape and the spiritual, cultural, historical, ancestral values that they, the tribe – not archaeologists – ascribe to it. As a result, the tribe on the one hand and the proponent and agency on the other are simply talking past one another, and every time either of the latter writes another letter or makes another verbal presentation about what good care is being (they say) taken of the archaeology, it only makes the tribe more angry and frustrated.

I cannot blame the government, industry, executives and attorneys alone for their “mis-equation” of archaeology with the entire cultural environment, because all are closely advised by archaeologists. It is to the archaeologists – who would very likely describe themselves as “public archaeologists” following the dangerous definition – that the industry and government look for advice about cultural matters. And if the archaeologists involved in this dismal case are even implying to their employers or clients that there is more to the cultural environment than archaeology, they are certainly doing so only in the most indistinct of voices. I doubt if they are doing so at all, because their concern, after all, is with archaeology.

As are the concerns, I surmise, of all my interlocutors, with the possible exception of McDavid. This illustrates, I think, why “public archaeology” (using the dangerous definition) is a menace.

Let me pose this question to all four, and any other reader willing to contemplate the matter: if an industry – let’s say it is a nice, clean, green industry, like wind power – came to you and asked you about what impacts a big array of wind turbines might have on an area’s cultural environment, or “cultural resources”, or “cultural heritage”, would any of you tell that industry that it needs to consider the spiritual and other cultural values that local communities may ascribe to the landscape? Would any of you suggest studies of aesthetic impact, or close and thoughtful consultation with communities that perceive themselves as having cultural links to the area? Or would you simply advise archaeological surveys, project design to avoid destroying archaeological sites, and programs of archaeological data recovery – all involving volunteers from the public, of course, and perhaps addressing research topics of interest to the public? If you would only advise the archaeological work, then you are part of a problem that is, I argue, menacing to the public, and in the long run to archaeology as well.

Actually, though, the industry representative would probably not ask you about the “cultural environment”, “cultural resources”, or “cultural heritage”. They would probably ask you about “archaeology”, so you could feel quite comfortable advising them only to take care of the sites. But the narrowness of their question would not mean that they were really asking only about archaeology. Us “public archaeologists” (third definition) have been so successful at promoting our point of view about what “cultural resources” are, what “cultural heritage” entails, that it is quite common for government and industry decision makers quite innocently to conflate the terms. “Culture” becomes “archaeology”, and vice-versa. But even if they ask only about archaeology, I suggest that if you do not answer by asking how they are going to deal with culture writ larger, culture writ different-than-it-is-by-archaeologists, you are part of what makes “public archaeology” menacing.

I agree with Carol McDavid that “public archaeology” is more than “cultural resource management” (CRM), but I also think it obviously is much less – because archaeology is not the only “cultural resource” that needs to be managed. If your particular practice of “public archaeology” never involves you in influencing how the modern world interacts with the cultural environment, as is apparently Cornelius Holtorf’s happy condition, then none of this matters. But if your species of public

archaeology does somehow involve interactions with planning and decision-making by government and industry, then I suggest that you need to be constantly alert to the danger of portraying archaeology – even at its most “public” – as the be-all and end-all of cultural significance.

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FORUM

The limits of collaboration. Osmanagić in the campus

This forum responds to the controversy generated after the invitation of Semir Osmanagić to give a lecture at Linnaeus University last autumn. Was it convenient? Did it 'hurt' in some way archaeology? Could it be helpful to understand certain alternative approaches? And social perspectives towards the past? What is our role towards these issues? After a contextualization of the topic by Tera Pruitt, four professionals will raise their opinions about the event. Finally, Cornelius Holtorf and Jacob Hilton analyze the consequences of the lecture.

INVITATION

Dr. Semir Osmanagić (Houston, Texas)
The Bosnian Valley of the Pyramids in Context
Time: 18 October 2011, 2.00 – 4.00 pm
Venue: Linnaeus University, Kalmar, University Library, Studio 1
The lecture will also be broadcast from Room Plato, Campus Vaxjo

Semir Osmanagić is best known for his controversial work on the Bosnian pyramids at Visiko. In this lecture (with discussion) he will contextualize his work in Bosnia both in relation to other pyramids around the world and in relation to tourism and heritage in Bosnia. Although most scholars dispute the existence of any such pyramids in Bosnia, Osmanagić continues to investigate what he believes are the oldest pyramids in Europe and the largest pyramids in the world in Visoko. After the lecture, we will critically discuss the way in which the Bosnian pyramids received global media coverage and the relations among the media, archaeological research and cultural heritage in Bosnia and beyond.

More information at

- www.samosmanagich.com
- www.bosnianpyramidofthesun.com
- <http://irna.lautre.net>

Free entry! All welcome!

ASSOCIATED PRESS RELEASE

An internationally known and highly controversial guest will be presenting at Linnaeus University next Tuesday. All welcome!

Background: most archaeologists consider Semir Osmanagić a pseudo-archaeologist since the pyramids he claimed to have found in Bosnia are, in all probability, natural, geological formations. In spite of that, he has received large attention in the global media, and his activities in Bosnia have attracted many tourists to a poor country that has obviously had a strong own need, and also a demand by tourists, for a sensational cultural heritage.

(See also here: http://sv.wikipedia.org/wiki/Bosniska_pyramider.)

Professor Cornelius Holtorf is responsible for Linnaeus University's programme in Heritage Studies (for more information about the programme see: <http://lnu.se/utbildning/program/kgkum>):

"We invited him not because we take his interpretations scientifically serious, but because we think we have to discuss his activities and its outcomes. The Bosnian pyramids have affected not only tourism and the perception of cultural heritage in Bosnia, but also how we see the cultural heritage in society more generally. Can invented heritage have the same (or greater) power than genuine cultural heritage? What are tourists really looking for when they visit cultural heritage sites? How does one present archaeology and heritage to the global media so that they will be covering it? How does Osmanagić himself see his critics among academic archeologists and specifically among the archaeologists working in Bosnia?"

BLOGS (Where the discussion first started)

Aardvarchaeology:

http://scienceblogs.com/aardvarchaeology/2011/10/swedish_university_invites_ima.php

Archaeological Haecceities:

<http://haecceities.wordpress.com/2011/10/13/2012-osmanagich-will-speak-at-a-swedish-university/>

Introduction

Tera PRUITT

Pyramids, Performance and Pseudoscience in Visoko, Bosnia

A Valley and A Man: The Story Behind the Bosnian Pyramids

The story is quite simple: an alternative archaeologist in Bosnia-Herzegovina claims that he has discovered the oldest and largest manmade pyramids in the world. Most professional archaeologists strongly disagree; they call his project pseudoscience, arguing that the 'pyramids' are simply straight-edged mountains, in a naturally hilly landscape formed by glacial movements and natural erosion. Despite this seductively simple narrative, the socio-political tale behind the Bosnian Pyramids project, which has held a great deal of power and influence in Bosnia, is a much more complex story.

In April 2005, a man named Semir Osmanagić announced that he had discovered five Palaeolithic pyramids in the small Bosnian town of Visoko, located 15 miles northwest of Sarajevo. Osmanagić was not an archaeologist; he was a business owner and alternative historian, author of books on alien encounters and mysticism in the ancient Maya civilisation (Osmanagic 2004). According to Osmanagić's new claims, the hilly Visočica river valley in Bosnia is actually a rich archaeological landscape, full of megalithic pyramids, ancient rock quarry sites, riverbeds full of 'mysterious stone balls', an a labyrinth of underground tunnels, and includes the largest and oldest manmade pyramid in the world (which the locals call 'Visočica Hill' and Osmanagić renamed 'Pyramid of the Sun').

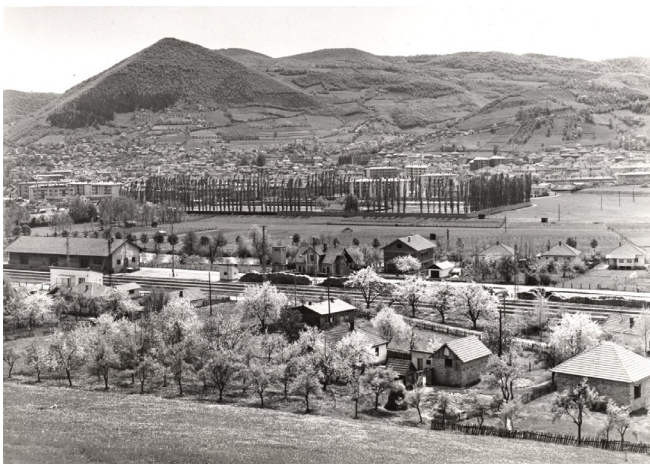


Figure 1.

Visočica Hill (Pyramid of the Sun) above the small town of Visoko, Bosnia-Herzegovina.

(This is a freely distributed image)

To this day, Semir Osmanagić manages large-scale amateur excavations in Visoko. Along with a core team of amateur enthusiasts and volunteers, Osmanagić has enlisted the help of credentialed historians, geologists, Egyptologists and archaeologists, as well as an eclectic mix of alternative historians and paranormal energy specialists (ICBP 2008). Each summer, his employed team and hundreds of community volunteers excavate the site. During winter, Osmanagić runs a circuit of media performances and institutional presentations to promote the site and its importance. Previous stops on this circuit include academic presentations in places like the Bosnian Embassy in London and the Society of Alexandria in Egypt, as well as presentations at fringe and paranormal history conferences like 'Megalithomania' in Glastonbury and the 'Histories & Mysteries' conference in Edinburgh, which featured crystal skulls.

The Bosnian Pyramids project has a strange dynamic between a 'hard scientific' and a 'fringe' identity. Semir Osmanagić first and foremost promotes the project as a genuine scientific enterprise, where 'proofs' are collected through scientific methodologies like radiocarbon dating (ICBP 2008), geothermal and radar analysis, core sampling, and scientific excavation (Osmanagic 2007a). According to Osmanagić: "The Archaeological Park Foundation believes that only a multi-disciplinary approach, with serious scientific argumentation on internationally recognized level will yield a successful realization of the Bosnian Pyramids project" (Osmanagic 2007a).

However, hidden underneath the project's veneer of science is an equally intense New Age sensationalism and endorsement of 'mysterious energies' that drive the pyramid mythology. Many, if not most, of Osmanagić's core supporters have backgrounds endorsing fringe, supernatural, extraterrestrial and conspiratorial theories in their own books and research (ICBP 2008; Coppens 2009). As his project has matured, Osmanagić has become more comfortable promoting the pyramids' esoteric side. For example, the headlining picture on the most recent official Bosnian Pyramids website sports a picture of a pyramid with an energy beam coming out of the top (Fondacija 2011).

Reaction and Reception: A Positive Welcome for Pyramids

After headlines broke in 2005, pyramid frenzy swept Bosnia and Semir Osmanagić became an overnight celebrity. Television media depicted Osmanagić as a khaki-wearing adventurer—a "Bosnian Indiana Jones"—come to help Bosnia's economy in recession by boosting

tourism and by giving the country a positive and sensational past worth international notice (ABC 2006; Foer 2007; Woodard 2007).

Osmanagić promotes his project as a grassroots movement, where the discipline of archaeology is democratized, and where any person can be involved in a positive message and positive economic change. According to Osmanagić:

Our wish is that Bosnia and Herzegovina [sic] becomes a lively place where explorers, students, professors, volunteers of lightened faces exchange their international scientific knowledge. Tourism will develop the market, the economy will raise and infrastructures will be built. (Osmanagic 2006).

He has often implied that the discipline of archaeology, as it is professionally practised now, is an undemocratic and exclusive operation, bordering on a conspiracy, which 'hides the truth' about the real past from the public.

The project's sudden popularity has certainly had an impact on the local economy. Visitors to Visoko rocketed from a mere 10,000 visitors a year before the pyramid story, to 250,000 visitors in the peak year of 2006 (Foer 2007). In a recession economy, still recovering from a recent civil war (1991-1995), the pyramids have given Visoko a much-needed economic boost. The region has bloomed with new stores selling handmade pyramid souvenirs, new paved roads, new jobs as tour guides and new restaurants (Sito-Sucic 2006). The project has undeniably been a great stimulus and inspiration to the Bosnian people.



Figure 2.

New businesses, like this one, were built in Visoko to accommodate the influx of tourists.

This restaurant advertises with a large brick pyramid on its front lawn.

(Photo by Tera Pruitt)

The project has also created a much-desired new history: a Bosnian 'Golden Age'. In a politically disjointed country, which experienced a great deal of suffering in its recent civil war, "nostalgia for the lost native places and homes, shattered dreams, insecurity, disappointment, pessimism are continuing to haunt everybody" (Zhelyazkova 2004: 17). According to many, many Bosnians are divided over whether or not Bosnia should even consider itself a unified 'nation'. Bruce Trigger writes of nationalistic archaeology: "The primary function...is to bolster the pride and morale of nations or ethnic groups. It is probably strongest amongst peoples who feel politically threatened, insecure or deprived of their collective rights by more powerful nations" (Trigger 1984: 360). In such a context, the story of Bosnia as a 'source of world civilisation' provides a positive symbol for a country still divided over its own national identity. It provides a town in recession with a much-needed economic boost.

The only problem, one might argue, is that the 'pyramids' are completely invented.

The Science, Pseudoscience, and Performance of Pyramids

Mainstream professional scientists have been quick to dismiss the Bosnian Pyramids. In many ways, the project is 'classic' pseudoscience; it blurs the line between material reality and wishful thinking, maintaining 'truth' only through a thin, fragile performance of science (Pruitt 2011). Semir Osmanagić and his team run the gamut on pseudoscientific methods: huge claims and overly ambitious promises, disparaging academia while, simultaneously, appealing to academic authority, a dogged adherence to outdated theoretical models, presenting selective and distorted images of the site, basing interpretations on logical fallacies and inconsistencies, and having an obsession with esoteric and supernatural mysteries (c.f. Fagan 2006).

Archaeologists, like Paul Heinrich at Louisiana State University, argue that "The landform [that Osmanagić] is calling a pyramid is actually quite common. They're called 'flatirons' in the United States and you see a lot of them out West...[and] "hundreds around the world," including the "Russian Twin Pyramids" in Vladivostok (qtd. in Woodard 2009). This assessment was confirmed in a local study by a team of Bosnian geologists led by professor Sejfudin Vrabac at the University of Tuzla. In 2006, they collected core samples from the 'pyramids' and confirmed that the hills in the Visočica river valley are

simply natural geological formations made of clastic layered sediments (Vrabac 2006).

No genuine, uncontested 'pyramid' archaeology has been found at the site. No archaeological tools or any clear signs of settlement for building pyramids have been identified (Rose 2006b). The only human alterations of the landscape date from much later periods of time: some evidence of nomadic Neolithic activity, some Iron Age settlements, but most archaeology in the region dates from the Medieval to the present (Malcom 2002), not from the Palaeolithic, as Osmanagić has dated the pyramids (ICBP 2008). The artefacts that Osmanagić has attributed to 'pyramid builders' are controversial at best, dubious at worst. Most 'pyramid artefacts' that I have personally seen have been simply rocks; other objects, like metal moulds and grindstones, were attributed, even by the employed site archaeologist, to the Iron Age or later (Pruitt 2011).



Figure 3.

Project volunteer proudly showing off a 'pyramid artefact' marked with a record number.

In reality, this is not an artefact, just a rock.

(Photo by Tera Pruitt)

Osmanagić, like most pseudoarchaeologists, does not rigorously test his own assumptions or build explanations based on found evidence, but rather he constructs 'proofs' of monumental architecture after the fact to verify his pre-established theories. His excavations look like he is carving pyramidal steps out of the hills, and his site photographs and reports carefully angle and construct a reality that looks very different from the one a visitor sees when they actually walk through the site (Foer 2007). Osmanagić simply performs the activities we come to associate with scientific archaeology, such as digging up things and collecting radiocarbon results, but it is a performance with no substantive evidence.

A good example is the way Osmanagić used radiocarbon analysis to date his pyramids to the Palaeolithic (ICBP 2008; Pruitt 2011). In 2008, genuine samples of carbonized material were taken by a credentialed archaeologist employed by the pyramid team. These samples were carefully packed and shipped to reputable radiocarbon laboratories, such as the Gilwice Radiocarbon Laboratory in Poland, which then delivered genuine radiocarbon results back to the pyramid team. These results were then presented at the project-funded "1st International Scientific Conference of the Bosnian Pyramids" by a member of the Gilwice Radiocarbon Laboratory. So far, this is a structured and scientific series of events.

The problems emerge in Osmanagić's interpretation. There was no evidence to suggest humans ever came in contact with the carbonized material found in the tunnels and radiocarbon dated. Even the trained archaeologist who took the samples argued at the conference that the tunnels were likely natural formations, and there was little to suggest the carbon was anything other than a tree root (Lawler 2008). Osmanagić's final interpretation of "Aha! Radiocarbon dates means a Bosnian supercivilisation built pyramids in 34,000 BC!" was a fallacious leap of logic. To the public, however, the series of events seemed legitimate, since radiocarbon analysis and other scientific methods are often thought to simply 'reveal truth', even though they require constant human input and interpretation to construct facts (Pruitt 2011).

Despite the project's invented results, their activities —like the radiocarbon dating, academic conferences, publishing scientific reports— look enormously convincing to the general public. Osmanagić is a master at drawing on reputable institutions and credentialed people to bolster his site's profile and claims. To further his own credibility, in 2010 Osmanagić successfully completed a PhD at the University of Sarajevo.

Incredibly, he also obtained a lecturing post at the American University in Sarajevo in 2011. Despite the fact that most of Osmanagić's work is 'smoke-and-mirrors science', his project now has all the appearance of authority and all the credentials to back his claims. Archaeologists around the world wonder, how did this happen?

Professional Archaeology and the Bosnian Pyramids

Since the beginning of the project, many professional archaeologists have responded critically, even hostilely, to both the creators and the supporters of the Bosnian Pyramids. Professional archaeologists, with genuine concern for Bosnia's heritage, have called the Bosnian Pyramids a "danger to European Archaeology" (Harding 2006). Somber conference sessions and talks have been called to rebuke the project, such as the Fictitious Pasts: A Danger for European Archaeology session at the European Association of Archaeologists meeting in Malta in 2008. Pleading media and academic reports have been published, criticisms have been lodged in Bosnian television, and frustrated articles have appeared in major publications like *Archaeology Magazine* (Kampschror 2006; Rose 2006a; Rose 2006b), *Science Magazine* (Bohannon 2006a; Bohannon 2006b), *British Archaeology* (Harding 2007), *Discover Magazine* (Bohannon 2008) and *Smithsonian Magazine* (Woodard 2009) —but to no avail. The Bosnian Pyramid project continues to operate, and for a while it even received government funding despite academic opposition in Bosnia.

Archaeologists are genuinely concerned about the implications of allowing pseudoarchaeology to thrive. The Bosnian Pyramids team is rewriting history with an invented past, and for many people in Bosnia this has become a preferred account of history. Worse still, the amateur team has undeniably destroyed genuine archaeological material, plowing right through layers of history-rich stratigraphy, in their quest to reveal pyramid 'proofs' in the ground bedrock (Rose 2006b). Archaeologists, like Richard Carlton at the University of Newcastle, reflects the despairing attitude of many academics when he says "I have no idea what to do other than to continue to present reasonably argued opposition" (qtd. in Bohannon 2006b).

However, archaeologists desperately trying to 'knock sense' into the supportive Bosnian public have seemed unmindful of the heavy, complex socio-politics that sustain the Bosnian Pyramids narrative.

It is a fact that the project has brought real economic change to

Visoko. A booming new tourism industry has given new purpose to a post-war town. Reporters have found local Visoko residents saying: "If they don't find the pyramid, we're going to make it during the night. But we're not even thinking about that. There are pyramids and there will be pyramids" (qtd. in Foer 2007, emphasis in original). Other residents were quoted as saying: "'Please God, let them find a pyramid', [while] rushing to serve crowded tables" (qtd. in Sito-Sucic 2006). Such public support does not arise from concern over what 'is' or 'is not' archaeology, but rather results from complex social processes: positive impact on economics, social welfare, pride in the past and nationalism. When people feel it necessary to pray for pyramids, when they have a stake in making sure the notion of pyramids survives, then something like the Bosnian Pyramids is bigger than simple fact or fiction.

Where Do We Go From Here?

In some ways, Semir Osmanagić is arguably having greater success than real archaeologists and scientists who are desperate to reclaim factual history in Bosnia. Osmanagić has brought money, media interest, positive feelings for cultural heritage and national pride back to the country through his own ingenuity and design. However, it is also a fact that the Bosnian Pyramid project is pseudoscience. Osmanagić and his team have constructed a theatre and performance of science—amassing academic credentials and drawing on the authority of institutions, presenting and publishing technical reports, conducting excavations and recording numbers on artefact bags—but their interpretations blur fiction with reality. This might be harmless, except that the pyramid project has already destroyed genuine archaeological remains in Visoko in their pursuit of an alternative past.

So far, archaeologists have tried to approach alternative history like the Bosnian Pyramids in at least three different ways. One approach has been to scoff and rebuke pseudoscientific behaviour. In the early days of the Bosnian Pyramids case, this was a common gut reaction, as shocked archaeologists realised that public support was not subsiding, but rather growing (Harding 2006). A second approach that archaeologists have taken has been to simply ignore the alternative archaeology and hope it goes away. Many professional archaeologists in Bosnia have taken this line; for example, after initially speaking out against the project but then receiving harsh reactions and even threats from the public, many archaeologists from the National Museum at Sarajevo have decided to keep quiet and wait out the storm, feeling

that Osmanagić's interpretations will not be sustainable in the long run (Pruitt 2011).

A third approach, which is the most complex and multifaceted, has been to actively engage with and study pseudoarchaeology so that we can better understand why such cases persist. In the case of the Bosnian Pyramids, a few researchers, like myself, have actively engaged with members of the project and with the public in the region, trying to better understand how alternative history like the Bosnian Pyramids can become so accepted and influential in such a short period of time (Pruitt 2009, 2011). Another example is professor Cornelius Holtorf's invitation to Semir Osmanagić to come and speak at Linneaus University in Sweden. This event has triggered a reaction from the archaeological community and is the reason we are talking about the Bosnian Pyramids today.

The questions around Holtorf's invitation are complex. By inviting Semir Osmanagić to speak, did Holtorf unnecessarily give Osmanagić a platform to speak about his project, giving him future leverage and influence to support his alternative claims? But on the other hand, if we, as archaeologists, do not engage with alternative archaeologists—if we do not actively interact with them and understand why they do the things they do—how else can we understand why such projects accumulate so much influence?

This journal issue opens up a much-needed debate in the archaeological profession. It allows us to ask: where do we go from here?



Figure 4.
Semir Osmanagić during
a press release.
(Photo by Tera Pruitt)

Responses

Johan NORMARK

Osmanagić and Mayanism

Semir Osmanagić has a peripheral connection to the 2012 phenomenon, which relates to the supposed "end-date" of the Maya Long Count calendar on December 21, 2012 (according to the so-called GMT-correlation). He has written a couple of books that have dealt with Mayanism, a pseudoscientific and New Age version of the ancient Maya of which the 2012 phenomenon is a major part (Hoopes 2011). In the conclusion of Osmanagić's book *The World of the Maya*, he speculates that "as we approach December 21, 2012 and the end of the significant 5200-years cycle in the Mayan calendar, as well as the completion of the longer cycle of 26,000 years we should ask ourselves about the changes foreseen by the Maya. Today's age of transition and chaos spoken of in the wisdom of the Maya will be replaced by "the world of the Fifth Sun"" (Osmanagic 2004:70). He is here referring to the Aztec myth of five creations/Suns, mixed with the Maya Long Count calendar of 13 Baktuns (5126 years), in order to reach the length of the precession of the equinoxes of almost 26,000 years when a supposed alignment between the earth, the sun and the galactic center occurs on the winter solstice of 2012 (Jenkins 2009). This mixture of myths and astronomy is common in the 2012 phenomenon and Osmanagić has made his own contribution by inventing pyramids in Bosnia through what can best be described as terraforming.

Similar to other 2012ers, he is very eclectic and connects dots that cannot be connected in any scientific way. He writes that "Maya is a key Hindu philosophical term meaning "creation of the world" and "the world of illusion". In Sanskrit "Maya" is connected with the concepts of "great", "measure", "mind" and "mother". For this reason, it may not surprise us to learn that Maya was the name of Buddha's mother. The Veda tells us that Maya was the name of a great astronomer and architect. In Egyptian philosophy the term Maya means "universal world order". In Greek mythology Maya is the brightest of the seven stars of the Pleiades constellation. Mayab is also the name of the seat of the Mayan civilization-the Yucatan peninsula" (Osmanagic 2004:5). What we have here is a mixture of Hindu, Buddhist, Egyptian, Greek and Maya words and concepts that ultimately are used to show that the ancestors of the Maya actually were aliens and that they came from the Pleiades.

Hence, the pyramids in the Maya area (and in Bosnia) are believed to be part of a greater complex that originated from outer space. According to him, "the Mayan hieroglyphics tell us that their ancestors came from the Pleiades [...] first arriving at Atlantis where they created an advanced civilization. The building of temples in the shape of pyramids enabled the Maya to obtain more energy [...] from the interior of the Earth, because the pyramids were erected on energy potent points [...] and from the cosmos, because the energy coming from outside the Earth was maintained longer and was more intense in the pyramids" (Osmanagić 2004:69-70). The references to the Pleiades may sound "innocent." However, the "Pleiadeans" are more or less "Aryans" from outer space. They are described as white-skinned, blue-eyed, blond, and "physically attractive" in literature about alternative history and galactic influences. Atlantis or the Pleiades are simply new versions of diffusionism, which is the dominant explanation for cultural similarities within Mayanism. The aliens have taken on the "white man's burden" to spread civilization.

Osmanagić's "dissertation thesis" *Non-technological Civilization of Mayas versus Modern Technological Civilizations* (2007b) is basically a reproduced and partly expanded version of *The World of the Maya*. He must have been asked to add some sociological literature in order to get his degree. According to Osmanagić himself, the thesis is "a novelty in regards to the official and sanctioned knowledge about the Maya culture". One of these supposedly sanctioned facts is that the Maya were a "Neolithic culture". No contemporary academic scholar claims this. The Neolithic is a time period based upon the prevalence of stone tools and an agricultural and sedentary life-style in Europe. It no longer implies a certain "cultural stage" throughout the world as Osmanagić believes.

Without any archaeological support Osmanagić denies the existence of the Maya after the 10th century AD. This goes against the massive amount of archaeological, ethnohistorical, and linguistic data that we do have. Today roughly 7 million people speak several Maya languages.

Osmanagić makes use of a vocabulary that in itself indicates that he has not studied the Maya in any great detail. Only if one has a limited view of a complex scenario can one claim that there are "indisputable examples" where "scientific evidence speaks for itself". Such an example is his claim that the Maya had a quartz skull technology. These skulls are far from indisputable examples. The quartz heads were made in Germany during the 19th century, not by ancient aliens.

His final "analysis" in his thesis consists of a comparison between the Maya and the "West." The comparison emphasizes "achieved levels of knowledge", parameters apparently dependent upon what Osmanagić himself finds to be important. First there is a set of primary comparative parameters such as civilizing goals, wisdom, love as a model of behavior (!), harmony with nature, spirituality, and art. This is followed by several parameters related to territory. His goal is to compare the Maya and the West by determining if they had or have reached the desired level of civilization, were or are on the path to the desired level of civilization, or if they are or were on the negative level of civilization. This teleological view of cultural evolution is not exactly at the cutting edge of social science. One wonders how Osmanagić received a PhD for this "thesis" which has a scientific quality lower than most BA-theses.

Lorna RICHARDSON

Comment on Osmanagić's visit

Osmanagić's visit to the Linneaus University in 2012 highlights some of the many contradictions facing those of us engaged in research in the field of Public Archaeology. The difficulty of conceptualisation of Public Archaeology has tended to stagnate around issues of definition and application. The 'outreach' approach needs the qualified, respected and scientific expert voice to communicate archaeological information to non-archaeologists. Final authority resides with the professional archaeologist who, in possession of knowledge dominance, can act as gatekeeper between archaeological knowledge, data and resources, and the general, non-archaeological, public. The 'multi-vocal' approach, in contrast, acknowledges the differences in the interactions between humans and material culture, and the subjectivity involved in these differing interactions between material culture, groups and individuals that is both historically situated and in the present. This critical approach firmly emphasises the importance of wider discourse between the socio-economically and politically marginalised and archaeological knowledge and resources as part of the achievement of wider cultural meaning. This is the approach that Holtorf, and myself, amongst many other Public Archaeology researchers worldwide, have adopted.

Copeland (2004) and Smith (2006, 125) emphasise the need for, and ethical responsibility of, archaeologists involved in the presentation

of their work in the public realm to understand, respect and value the interpretations of the past by non-professionals, without the imposition of 'correct' interpretational methods. Archaeology is also a subject that is in a constant process of negotiating dialogue with itself, and the past. The gathering, processing and re-examination of old and new data means that, as archaeologists, we cannot honestly claim to know the final 'truths' about human pasts. Therefore, Public Archaeology as a discipline examines the relationship between these past human activities and contemporary society. It critiques the process and means through which the archaeological sector influences, facilitates, limits and exposes the relationships between the past, present and future. It must be politically engaged to understand the creation and application of associated theory and the examination and analysis of Public Archaeology in practice. The conceptual and ethical paradigm of Public Archaeology is, therefore, the renegotiation of power and control through communication, dialogue and participation between archaeological professionals and non-professional members of the general public.

Semir "Sam" Osmanagić is a charlatan, and a wealthy and powerful one at that. His apparently valid doctorate from the University of Sarajevo, and the Bosnian Government's approval and financial support of the work of the 'Bosnian Pyramid of the Sun Foundation' have already lent him legitimacy in his homeland. The financial situation for cultural heritage in Bosnia is desperate, with museums closed, staff unpaid and the National Museum about to have its electricity cut off due to unpaid bills (BBC website 2012). Support for pseudo-archaeology in the face of this cultural crisis is disastrous. Why is it acceptable to offer a platform to a man who is so clearly deluded and dangerously wrong? Is it right for a respected Swedish institution to concern themselves with someone who will, on past record, milk that association to its last drop? Should funding be made available to support this kind of 'sociological' research, when archaeological funding is so scarce? Or does Holtorf, by not inviting Osmanagić and his ilk into the wider debate, simply confirm public perceptions of academic elitism, and create a self-fulfilling prophecy for conspiracy theorists?

Archaeology contains deep intra-disciplinary divisions alongside social stratification, and, as Henson (2009, 118) has argued, it is a porous subject, with a wide variety of disciplinary 'leakage' along the edges, working with theory and practice from disciplines such as sociology, anthropology, forensic science, geography and geology, amongst others. The emphasis within this elitist discipline is, as Henson

interprets it, "*on exclusive rights to validate, conserve and study the archaeological resource*" (ibid. 119). Public Archaeology is part of this porous subject. Its role is to question the dominant position of the heritage professional and to shine a light in the dark corners of both archaeology and its pseudo-archaeology, which can be an uncomfortable business for those in the trades. When archaeology (or pseudo-archaeology) is used to create conceptual narratives that are not sanctioned by the profession, it meets understandable hostility, anger and condemnation from professional archaeologists. But we, as Public Archaeologists, want to understand how 'expert-amateur' discourse is constructed and legitimised, how we regulate, maintain and assert authority over wider archaeological narratives, indeed, how the impact of heritage tourism can develop and sustain nations and communities with entrenched poverty and mass unemployment. A conversation is unavoidable – let's at least take that conversation out of Twitter, off the comments thread, down from the blog, and out of the pages of the obscure mind-body-spirit magazine. Let's air this conversation in a public arena, face-to-face. To understand these issues, we *have* to get our hands dirty.

Beatriz COMENDADOR REY

Comment to Osmanagić's conference

If we cast our eye over the social success of Semir Osmaganić's pyromania, we can identify the following features:

- To begin with, he has created his own character. He introduces himself as Houston's answer to Indiana Jones, searching for the Great Bosnian Valley of the Pyramids. He is the great Bosnian hero... "all Bosnia loves you", he is told. He portrays a typical, charismatic role.
- He projects himself as revealing to the world what official science refuses to recognise: that Bosnia was the cradle of the oldest of the ancient high civilizations, with the greatest technological achievements. He presents a glorious past for Bosnia, stressing time and again the unique nature of the Moon Pyramid, a world leader - "the biggest in the world", "the highest pyramid ever built".

- He uses the media to convert the pyramid set into, simultaneously, a mass phenomenon and a collective business.
- The Bosnians are presented as the heirs of this “constructed heritage.” This past represents them in the present, becoming an element of identity. The denial of this past implies the denial of the role of Bosnia in the global stage, a national minimalisation.
- The denial and radical opposition of official science, dismissing him as an “amateur, swashbuckler, dreamer”, is counterproductive. With even more rejection and denial, and the absence of dialogue, Osmaganic’s popularity increases.
- Currently, diverse financial interests underlie the phenomenon, which has attracted mass tourism to Visoko and generated merchandising.

The following two passages from a video on this topic are enlightening:



(<http://youtu.be/UszvJ3yANnc>) ***Need latest Acrobat to watch**

Why on earth in Bosnia? Because we deserve it...

In the end, those stones are interesting... People believe in God and no one has ever seen Him. Here we have three or four stones placed together. Why not believe in the pyramids?! If Semir says so...

I would ask Mr. Osmaganić what the objectives of his research are, from a historical and a social perspective. I believe that the key factor is his own personal gain, although I imagine that the feeling of being a national hero is also far from unwelcome.

Diverse "pasts" coexist, just as "diverse" archaeologies do.

Because... Is archaeology which lacks impact of social interest? Has "official" archaeology ever fulfilled any of the social and economic functions of "Orgasmanić archaeology"? What is "official" archaeology for?

Cornelius Holtorf's proposal seems to me not only appropriate, but also necessary and brave. Looking the other way does not stop "other archaeologies" existing. Inviting a "pseudoscientist" to an archaeology forum, with the objectives of social analysis which have been presented, allows a direct and unmanipulated dialogue.

Geoff CARVER

Beyond belief: Making mountains out of molehills, or pyramids out of...

When I saw Cornelius's post on Facebook, my first reaction was to contrast this approach to that taken by Deborah Lipstadt when invited to "debate" Holocaust Deniers, or by people like Richard Dawkins when invited to "debate" "Scientific Creationism" (now called "Intelligent Design"), etc. They just do not do it.

On the one hand, a public stage – where rhetorical tricks and emotion can often win out over reason, facts and the complex arguments that constitute "proof" in science – is not necessarily the best place to debate serious issues. One only needs to think of the large number of false convictions in any justice system. Science should not be a circus, or a popularity contest.

Lipstadt and Dawkins also argue that there really is not anything to debate. In Cornelius's defence, it is worth emphasising that Osmanagić was not invited to either present or "debate" his "pyramids." But, in some sense, it does not really matter what he speaks about. He could show slides of his last vacation, for all it matters, because he could go away and use the fact of the event – the fact that he had been invited to address academic archaeologists in another country – as providing proof that he is respected by his peers and has a standing within the academic community (i.e. scholarly support for his views): *veni vedi vici*.

So my response was based on an assumption that – no matter what the reasons, whatever the results – Osmanagić would use the attention to his advantage. It would be naïve on Cornelius's part to think otherwise; not to realise that Osmanagić would go to Kalmar, speak, go home, and then not use this to his advantage somehow. This may be unfair on my part – a reflection of my own prejudice against anything that smacks of pseudo-science – but it might also be a fair inference based on Osmanagić's record. Those he has duped by taking their statements out of context include Zahi Hawass (which is somewhat ironic given his political acumen). Since Ezra Zubrow, a mutual acquaintance of Cornelius and myself, suffered the same treatment, it is not as though Cornelius should not know better.

Some may try to frame this as an issue of free speech. This is a false analogy. No one is denying Osmanagić the right to air his views. He has a website and he publishes his own work. So far as I know, no one has stopped him from publishing in established journals (assuming he can pass the peer-review process). That does not mean that archaeologists are under any obligation to give him a platform, just as Osmanagić is under no obligation to return the favour if we do. I may be cynical, but I somehow do not expect he will convene an international conference any time soon, or open his site up to international oversight. This would be the scientific approach, of course, but I do not expect it to happen.

And in a way maybe issues such as "fairness" and having well-meaning and well-intentioned people talk about Osmanagić's right to free speech are what annoy me, because there is that sort of naïve belief that if we play fair with him, he will play fair with us, or that the truth will all out in the end, etc. But that belief seems to be based on an assumption that Osmanagić is interested in a dialogue; that he is playing the same game, by the same rules. It may even be that any press – however negative – that draws attention to Osmanagić will simply make him stronger in the eyes of his faithful followers and his financial backers.

In that sense, perhaps it is worth asking why Cornelius courts controversy by inviting someone like Osmanagić to present his views?

So maybe the problem is that some archaeologists are too honest, too trusting, too optimistic and naïve. After all, it is only relatively recently that we have started to become more serious and effective in using the press to our own advantage. Every large excavation seems to have a press release linked to the publication of significant results,

for example. But that does not mean we are able to go up against big investors who still reap a lot of political support by claiming that we are hindering progress or blocking job creation. And we still do not earn anywhere near as much attention as the von Dänikens, Dan Browns, Indiana Joneses and others of their ilk who capitalize on misrepresentations derived from our work.

To some degree I would like to frame this discussion in terms of naivety on the part of some of our post-modern/post-processual colleagues. It Could be argued to what degree they represent academic navel-gazing, a clear manifestation of ivory tower elites out-of-touch with the real world, playing games with relativism and so on. Whereas we cynics out here in "the real world" we have to deal with such pressing issues as budgets and timetables and database design, or negotiations with companies and even state services that flaunt health and safety regulations because they can: the regulatory agencies are not interested in protecting – and no one wants to stir up trouble for – just a few archaeologists.

And I figure that nothing is going to change: archaeologists will always be weak, so long as we fail to learn from the past or naively believe that the Osmanagićs of this world are interested in participating in a dialogue. I find this especially depressing and ironic, given that "learning from the past" is supposed to be one of the reasons for doing archaeology or for studying history. Yet, despite such clear examples as the many conferences which have examined archaeology and politics by looking at archaeology in the 3rd Reich, we still do not seem to have learned some of the basic lessons about Realpolitik, and the media, and how easy it is to manipulate the well-intentioned who fail – or refuse – to take a stand or draw a line in the sand.

The history of archaeology shows a general move away from being a hobby enjoyed by a small elite towards attempting to be a serious science. The fact that we are not there yet is highlighted by the fact that archaeology continues to be under-funded, and developers can continue to get away with flaunting not only health and safety legislation but also laws intended to protect heritage. In that context, giving a platform to someone like Osmanagić to start talking about Bosnian pyramids, or Eric von Däniken, or the late Barry Fell, or someone regurgitating Kossina's more racist theories, etc., represents a great leap backwards.

Obviously there is a role for the public in archaeology, and obviously science thrives on discourse and informed, critical debate. But that

does not mean that all opinions are equally valid, or that we need to give them all equal airtime. Think about whether you would rather receive heart surgery from a surgeon or a plumber, for example; or whether you want to elect a pilot from amongst the passengers next time you fly somewhere.

Before archaeologists can attain the professional status of heart surgeons or airline pilots, we need to be serious and present a more unified face to the public. Otherwise, I am worried that the next time I try to argue that my workers need to have water on site (so that, after digging through mediaeval latrines all morning, they can at least wash their hands before lunch), the investor will turn around and claim our work is not serious, because we spend all our time discussing such non-issues as the Pyramids in Bosnia; or that this flint scatter or that bronze age burial mound or late stone age settlement is nowhere near as important as... the Pyramids in Bosnia.

A final response

Cornelius HOLTORF and Jacob HILTON

Learning about the past from the Bosnian pyramids?

Semir Osmanagić's public lecture at Linnaeus University on 18 October 2011 was no big event, although one of us (Holtorf) had announced it through all channels available through the University, and the local radio station had reported about it a few days in advance. The lecture was simultaneously broadcast to the University's second campus at Växjö (but not recorded), and there were only about 12 in the audience at Kalmar and another 10 at Växjö. Maybe this low attendance was one reason why the controversy on the internet that had ensued in advance of the lecture (and which is reflected in the present discussion) was not matched within the University, either before or after the event. Indeed, not all of the colleagues at the University thought it had been a good idea to invite Osmanagić to speak at all.

Two days after the lecture, a letter to the editor appeared in *Barometern*, a local newspaper, in which the author criticized the University for allowing the lecture to happen. We chose not to respond, and there was no subsequent debate we know of, either within or outside the University. However, the debate is an important one if conducted in

an open-minded academic fashion, and that is why we were more than happy to promote and contribute to the present exchange of views in this international journal.

An interesting question to consider initially is why was there not more interest in the lecture? Osmanagić and the Bosnian pyramids have in recent years been something of an international media phenomenon, yet it appeared that in Sweden few current students and generally few non-archaeologists had ever heard of the controversy around these astonishing revelations from Bosnia. On the same trip to Sweden, Osmanagić had even lined up a number of other public lectures in connection with the local Bosnian communities, and among these audiences, perhaps understandably, his work appears to have attracted bigger attention.

While Osmanagić came to Linnaeus University to speak about the Bosnian pyramids and to persuade the students of their merit, the University had other reasons for extending the invitation. The aim of the lecture was to investigate the role of alternative archaeologies and invented heritage. When a project such as this one has garnered such a wide response of criticism and support from all over the world despite the evidence against it, it is worthwhile to consider how it can be sustained. Semir Osmanagić was invited to Linnaeus University not in support of his claims, but as an opportunity for the students of archaeology (or indeed other disciplines) to be confronted with alternative discourses and practices that do not follow all existing academic conventions. It was a chance for them to engage and to communicate with somebody so discredited and yet so influential. It was an opportunity to explore one particular aspect of the relationship between archaeology, cultural heritage, contemporary society and their influence upon one another. While it may be bad science, there may be something to learn from Semir Osmanagić, if only his success in involving the public.

The lecture which Osmanagić presented at Kalmar appeared to be his standard one. It consisted of the astonishing number of 201 PowerPoint slides. After more than an hour of presentation, when he was gently reminded to come to the end, it became clear that he had believed that the entire two-hour slot was for him to present (admittedly, Holtorf had failed to remind him of the customary schedule for events like this including time for both presentation and discussion). He managed however to flick through the remaining slides relatively quickly, and there was still some time for discussion at the end.

During the hour and a half presentation, Osmanagić spent a significant amount of time discussing other pyramids around the world rather than the ones he claims to have discovered. In fact, his lecture was largely a criticism against the current academic understanding of the history of the pyramids, their construction, their structural aspects and their meaning and function.

The lecture followed in some way a narrative which the infamous alternative archaeologist and writer Erich von Däniken may have chosen as well. Osmanagić started introducing various kinds of pyramids around the world, some being well known such as those in Egypt and Mexico. He claimed that the conventional knowledge explaining pyramids was wrong and that a “paradigm shift” was occurring that contradicted much of what the mainstream scientists had been arguing thus far. The huge stones of which pyramids have been built, and the sophisticated overall design and architecture, he argued, cannot have been the work of ancient Egyptians or any other ancient people. He pointed to certain contradictions that he had noticed, for example how the Egyptian pyramids could have been built by the pharaohs as their monumental burial sites when in fact they did not contain their mummified corpses; or that ceramics found in the step pyramid of Saqqara was dated to 5,700 years ago which predates the conventionally assumed date of construction by approximately one thousand years. Osmanagić concluded that we are still at square one in explaining the pyramids, even though Egyptologists have been around for nearly two hundred years. In his view, the Egyptian pyramids had “nothing to do with pharaohs”.

Osmanagić then went on a tour-de-force around the globe discussing pyramids, some being not widely known at all, including those on Tenerife and Mauritius, in Cambodia, Korea, Tahiti, China, USA, Bolivia, Peru, Mexico, and Belize. As his many pictures and anecdotes made plain, he had travelled to many if not all of these places himself – very much in the style of an explorer entering new territory. That territory is new indeed. As Osmanagić pointed out, many of the pyramids he discussed you never read about in the history books or learn about in school, as they are not even all fully acknowledged by the relevant state authorities for heritage. But, as Osmanagić put it in a particularly memorable rhetorical question, “Whom do we trust—our own eyes or the government?” He was confident that all history books will eventually have to be changed, as people will want to know the truth about the pyramids! That pyramidal truth, according to Osmanagić, involves a forgotten, very old civilization stretching across

the globe building the same kind of structures in many different places. After all, the pyramids showed amazing similarities which are plain for all to see with their own eyes. These similarities include four (rather than three) sides of equal size, large steps on their sides, and perfect astronomical orientation (mostly to the north). They feature plateaus on their tops, they contain passageways and underground tunnels, and they are usually part of large sacred geometries within the surrounding landscape. To Osmanagić, these pyramids were consequently all designed and built by the same very knowledgeable architect who knew not only about constructing perfectly geometrical forms but also about phenomena like the difference between cosmic and magnetic north, as both are reflected in the design of the pyramids.

Having established himself as a global pyramid expert pursuing the quest for pyramidal truth with his own eyes, Osmanagić turned to his home country, Bosnia. What are these pyramids that Osmanagić is talking about exactly? Discovered by Osmanagić in 2005, the pyramids are located in Visoko, a small town outside of Sarajevo in central Bosnia and Herzegovina. They are five hills that together comprise what has been called the Bosnian Valley of the Pyramids (Figure 1). Here, Osmanagić set up a big project dedicated to the investigation of these pyramids. The project has been attracting hundreds of volunteers from around the world to assist in the fieldwork, and about five hundred thousand curious visitors have come to visit Visoko (Figure 2).





Figure 1. *The Bosnian Valley of the Pyramids according to Semir Osmanagić.*

Figure 2. *Semir Osmanagić guides visitors at the pyramid excavation in Bosnia.*

The Bosnian pyramids are supposedly the oldest and largest in the world, and they are placed in the world's biggest Valley of the Pyramids. In fact, the "Pyramid of the Sun" with a height of 220 meters is the largest and oldest among them. It is not only about a third taller than the Cheops pyramids in Egypt, but with a cited age of around 12-15,000 years, it is also a lot older (Figure 3). Material analysis has reportedly revealed that the Bosnian pyramids were constructed of concrete superior in hardness, water absorption and durability to anything we use today. According to the dating methods applied, the use of such materials preceded the invention of concrete by the Romans by many millennia. As for the pyramids' spatial orientation with respect to cardinal directions, they are also remarkably precise. The "Pyramid of the Sun" is said to be oriented due North within only 12 seconds of error. Other structural aspects include passageways and underground tunnels, partly filled with water and containing megalithic blocks, a supposedly 30,000-year-old ceramic sculpture and a block with many carved symbols. Around the site there is what Osmanagic calls a "sacred geometry": geometrical patterns between various sites in the landscape, best studied on maps.



Figure 3. The Bosnian "Pyramid of the Sun".

Source: <http://www.piramidasunca.ba/eng/photo-gallery.html>

The results of this work may be controversial among professional archaeologists, but the rhetoric Osmanagić employs pushes many of the right buttons. He stresses that all the results of his project are openly available to be shared with everybody and that all he wants is the truth to emerge through scientific methods. His team of collaborators investigates everything from building material and soil samples to thermal anomalies and electromagnetic fields. They use all the scientific tools available to them including geomagnetic survey, georadar screening, radiocarbon dating and 3-D trigonometric maps. Much of this work was presented during the "First International Scientific Conference on the Bosnian Valley of the Pyramids" held in Sarajevo, 25-31 August 2008 (for a report see Pruitt 2011: 206-212). Last but not least Osmanagić is proud to use a lot of non-destructive methods, referring to a historical responsibility to preserve the site for future generations.

As the lecture came to an end, the students were welcomed to comment and to ask questions. The audience was, however, relatively small and most of the students were in their first or second year of studies, rather overwhelmed by the long lecture and not too eager to inquire further into Osmanagić's claims or to comment on them at all.

Nevertheless he responded to a few questions. Asked if he would agree that at the end of the day it doesn't really matter if the pyramids were real or not as the project has done so much for the people of Bosnia in terms of tourism, he disagreed: "I am a researcher; I am a scientist.... It is good that the country will benefit... but [this] is secondary." At the same time, although his work has been dismissed by practically all scientists around the world, he stated that he would not accept this as a final no to the hypothesis that the biggest and oldest pyramids of the world can be found in Bosnian Visoko (Figure 4). Having invested so much time and effort already, he was prepared to keep working with the project hoping that he would eventually be proven right. He also made something of a pity appeal to the audience for their support to allow him to continue working to test his hypothesis, obviously frustrated by the considerable opposition he faced by various authorities even within Bosnia and Hercegovina.

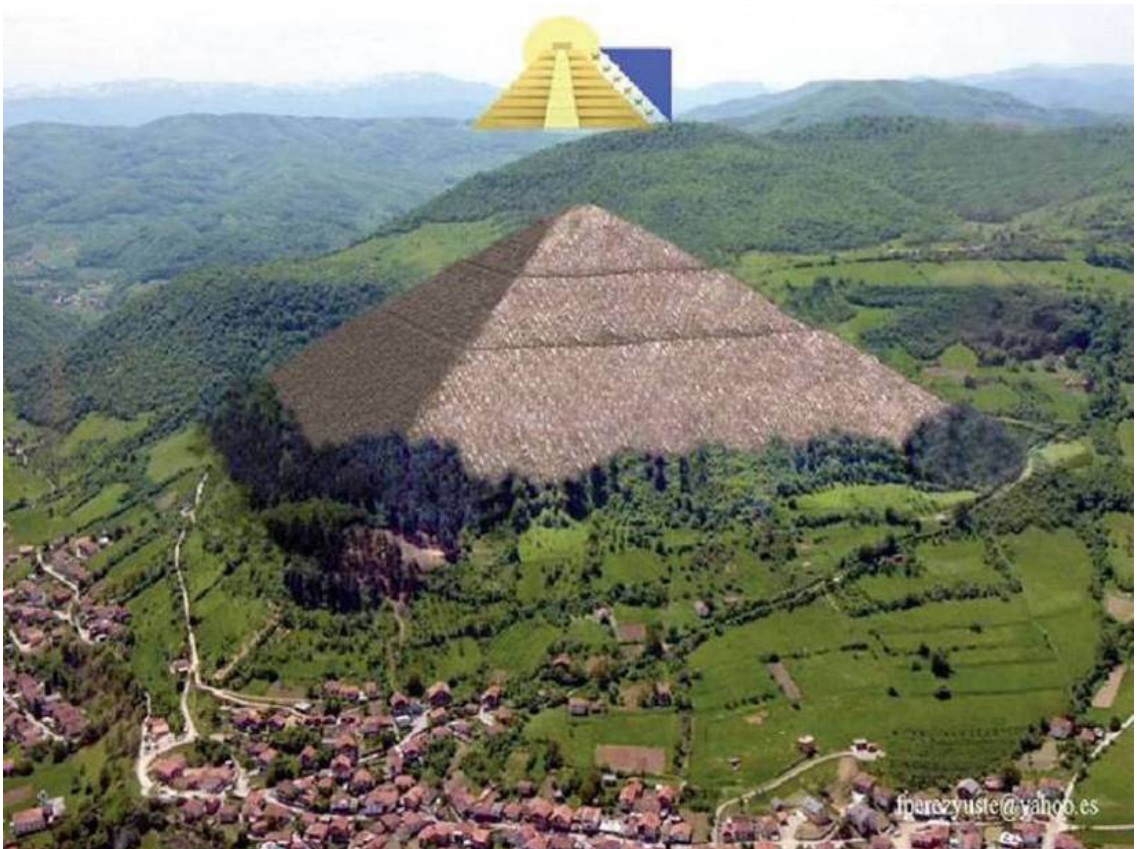


Figure 4. Hypothetical reconstruction of the Bosnian Pyramid of the Sun according to Semir Osmanagić (showing also the logo of the "Bosnian Pyramid of the Sun Foundation").

In sum then, the event itself – although controversial before it happened – did not cause any major splash anywhere. In retrospect, was Holtorf right in inviting him? Given that he was familiar with the issues surrounding alternative archaeology (Holtorf 2005) and that he had made an informed decision in this case based on having read relevant academic studies (Pruitt 2007, 2009, 2011) and that he had also directly consulted some of the relevant experts in advance of the invitation, there is no need for him to have any regrets. The reasoning for the initial invitation still appears as justified (see page 24).

Did Osmanagić himself exploit the lecture to gain undue legitimacy and further momentum for his project? All we know is that the lecture was mentioned on a Bosnian webpage¹ including two photographs showing the poster announcing the lecture and the institutional sign outside our building. Should we be concerned about this? Hardly. Whatever some of our colleagues in their contribution to the present discussion may have expected, we do not see evidence that Osmanagić has milked the event of his lecture “to its last drop”, whether for personal gain, a nationalistic agenda or any other discernible purpose. We do not consider having been “duped” by him either. Perhaps it was wise that Holtorf had taken the simple precautionary step not to agree to a joint photograph with Osmanagić.

In welcoming a lecture about the Bosnian pyramids we consider ourselves more in touch with “the real world” than those archaeologists who worry a great deal about recording flint scatters. Although the lecture by Osmanagić was not financially supported by the University or by any other public funds – and all that can be claimed is that Holtorf had the personal pleasure to invite the discoverer of the Bosnian pyramids for lunch – arguably this lecture provided a greater opportunity to learn something about the significance of the past and cultural heritage in present-day society than many other lectures that would not have caused any frowning by anybody.

1 <http://piramidasunca.ba/bs/offline-page/aktuelnosti/vijesti/prezentacije/item/7712-završena-sedmodnevna-turneja-osmanagića-po-švedskoj.html>

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Public Archaeology via skyscraper: Outcome and Experience

Patrice L. JEPPSON

Philadelphia Archaeological Forum

Glen MUSCHIO

*Drexel University. Digital Media Program,
College of Media Arts and Design*

Hannah WINOGRAD

*Drexel University. STAR Fellowship Program, Pennoni Honors College
Digital Media Program, College of Media Arts and Design*

Matthew HAAS

*Drexel University. STAR Fellowship Program, Pennoni Honors College
Digital Media Program, College of Media Arts and Design*

Geoffrey OXHOLM

Drexel University. Computer Science Department

Ko NISHINO

Drexel University. Computer Science Department

*The 3D Colonial Philadelphia Project – Digital Restoration of Thin-
Shell Objects for Historical Archeological Research and Interpretation
(National Science Foundation IIS Grant 0803670)*

Abstract

A recent archaeology awareness campaign projected Public Service Announcements from the top of a city skyscraper. These 30-second videos featured animated 3D artifact reconstructions alongside an archaeology-themed message. This was not just public archaeology done in an unusual way but public archaeology conducted toward an unusually broad end: the processes involved in creating the PSAs served many masters, not just archaeology's needs. This paper reports on this reflexive, dialogic, public archaeology case study where communities make use of the past for their own needs in the present.

Key words

*New Media, Computational Archaeology, Convergence Theory,
Dialogic Public Archaeology*

Introduction

What is that twirling around on top of that building? This was an anticipated response to an unusual archaeological awareness campaign launched in Philadelphia, Pennsylvania (U.S.A.) in the fall of 2011. The project involved the creation of *public service announcements*, or PSAs, that were projected on a 40 foot(10 meter)-tall LED light marquee encircling the 27th floor of a city skyscraper. (Figure 1). These PSAs featured 30-second long videos that drew upon local archaeological evidence and cutting edge computational archaeology research. The videos showcased animated 3D artifact reconstructions alongside archaeology-themed text rendered in eye-catching color. Lighting up the night sky akin to the *media walls* in New York City's "Times Square" or the Las Vegas (Nevada) "Strip", these electronic billboard messages aimed to stimulate public curiosity and thereby engender some awareness about local archaeology. The messages would be visible to an estimated 100,000 people each evening. To see a video of one of these PSAs in operation go to <http://youtu.be/VFDcWm9INvs> (Length: 0.33 seconds) ***Need latest Acrobat to watch the videos**





Figure 1. The skyscraper on the right shows one of the three 3D animated videos in operation just before sunset on September 28th, 2011. The local electric company broadcasts community service messages on this electronic billboard each evening from 5pm to 9am. (Photo by P. L. Jeppson, 2011).

However, from the first stages of planning it became clear that this public archaeology endeavor would be about much more than the finished and transmitted PSAs. It was evident that public archaeology infused *the processes* of creating the PSAs —if by public archaeology we mean the public’s use of the past for its needs in the present. The 3D animated messages emerged through a convergence of computational archaeology research, new media education, as well as local archaeology needs, and as such they involved trans-disciplinary aims and goals. Added to this, the marquee hosting of the PSAs, courtesy of the local electric company, involved a corporation serving its own community relations’ needs while serving ours. Thus, while the project would lead to a finished product that spread awareness about, and encouraged interest in, local archaeology, it also served many masters. It went beyond a public archaeology outreach aim of meeting archaeology’s needs to serve the needs of various publics beyond archaeology’s borders.

This paper looks behind the scenes of this particular project’s collaborative *form* (production) and *function* (purpose). It explores the convergence of interests and expertise that procured, produced, and/

or facilitated the creation of the PSAs and their projection from the top of the building. Included is a contextual analysis of the various elements and constituencies involved –namely a treatment of the archaeological resources used in the project, a description and critique of the archaeology awareness campaign itself, a discussion and analysis of the collaborative partnerships that ensued, and a demonstration, via hyperlinked steaming YouTube videos, of the finished product.

The principles involved in this project, whose contributions are described below, are Glen Muschio, Matt Haas, Hannah Winograd, Geoffrey Oxholm, and myself, Patrice Jeppson—who serves as primary author of this paper. As the public archaeologist on this team, it is I who reports here on the project's public archaeology aspects. Toward this end, I anthropologically theorize this case study so as to explore *the present* of archaeology. I examine the relationship between archaeology and society as part of daily life through a systematic evaluation of the different social, economic, and/or political issues and interests surrounding the PSA endeavor. While data relevant for a quantitative assessment of the project's outcome is provided, this case study demonstrates the qualitative value of a reflexive, dialogic public archaeology (see Matthews et al., 2011).

The Project as an Archaeology Month Contribution

Most of the fifty states making up the United States of America celebrate an annual *Archaeology Month* or *Week*. These designations are created through proclamation by the Governors of the individual states and are designed to help generate understanding and interest in a state's archaeological heritage (for more see *Archaeology for the public*, State Archaeology Month Information 2011). In each locality, local professional archaeologists, avocational archaeologists and volunteers organize celebratory activities, often with local sponsorships. The *Public Service Announcement* project that I describe and analyze here is a local manifestation of one such statewide archaeological awareness campaign –in this case, involving archaeology month in the Commonwealth of Pennsylvania (as the state of Pennsylvania is known).

October is designated as Archaeology Month for Pennsylvania and celebrations take place annually throughout the Commonwealth including in the state's largest city of Philadelphia that, with 3.9 million

persons in the broader metropolitan area, is also the nation's 5th largest urban concentration. For several years running, the major Philadelphia celebration has been a program of presentations, videos and occasional exhibits where local researchers come together to share the year's local discoveries with members of the general public (see, among others, *Explore Philly's Hidden Past Program*, 2011). This annual event is co-organized and co-sponsored by the Philadelphia Archaeological Forum (PAF) and the Archeology Lab at Independence National Historical Park (INHP). PAF is a non-profit organization dedicated to the protection and preservation of Philadelphia-area archaeological resources. INHP is a U.S. Department of the Interior National Park Service (NPS) unit located in the center of the city of Philadelphia. This annual event has involved as many as 21 archaeologists presenting prehistoric, historical, and industrial archaeology discoveries during a day-long conference created specifically with the general public in mind. As a local archaeologist who also has a research interest in public archaeology, I generally volunteer to undertake the publicity for this program. I do this as volunteered service to PAF, my local archaeological society. This year, my efforts involved the public service announcement project discussed here.

In the build up to the 2011 archaeology month celebration I decided to expand PAF's usual Archaeology Month publicity with a new undertaking that would help to showcase the area's rich archaeological resources while also highlighting both the annual event and the existence of PAF itself as an organization dedicated to local archaeological concerns. Toward this end, on behalf of PAF, I approached a *new media* researcher at Drexel University, Glen Muschio, about creating a digitally-rich public service announcement, or PSA, that could run on the local electric company's community service platform—an electronic billboard encircling the top of their corporate headquarters building used to promote local non-profit organizations and activities. Muschio has an on-going research interest in digital archaeology interpretation and preservation and is, as a result, also involved in the PAF. He suggested making two PSAs; one that would announce the specific details for the local annual event and another, more general in scope, to promote October as the state's Archaeology Month. This suggestion well suited PAF's needs. The event-specific PSA would supplement the already existing publicity campaign mounted for the annual event (purchased print ads, emailed announcements, and widely posted fliers) while the second PSA, promoting October as Pennsylvania Archaeology Month, would be a new Pennsylvania Archaeology Month contribution from PAF.

Archaeology Month as a Community Education Resource

For his part, Muschio's involvement in the project had several direct and indirect benefits. Muschio's institution, Drexel University, is a top-ranked, comprehensive university that is recognized for its focus on experiential learning through co-operative education. Drexel is also known for its commitment to cutting-edge technology and its use-inspired research. The PSA project could serve as course content for Muschio's instructional needs in the Program in Digital Media in Drexel's Antoinette Westphal College of Media Arts and Design. Founded and developed by Muschio, this program of study addresses the rapidly growing impact of new media on entertainment, education, and industry and the program's scholarship reflects the fast-paced, constantly evolving field in which art, technology and science intersect. The program offers college students Bachelor of Science degrees in Animation and Visual Effects, Game Art and Production, and Web Development. These major courses provide graduates with the technological, storytelling, and design skills to succeed in the highly competitive fields of entertainment, design, and new media. While creating the PSAs was not expected to require novel technological development, the project would serve as good practice for students needing practical experience with new media modeling or students learning animation. The PSA project would also comprise a class assignment with valuable real world application. Moreover, by partaking in the PSA project on behalf of the non-profit PAF, the Digital Media Program, Antoniette Westphal College, and Drexel University as a whole would be conducting campus outreach by assisting a local concern in the community.

With the PSA project in mind, Muschio selected two students from Drexel's Pennoni Honors College *STAR Scholars Program* for summer internships in the Digital Media Program. Inspired by Drexel's philosophy of learning by doing, the *Students Tracking Advanced Research Fellowship Program* (STAR) matches first-year students with faculty-mentored research or creative projects. This allows students to explore a major course of study and gain practical skills and valuable research experience for their future career. The students—Hannah Winograd and Matthew Haas—began development of the PSAs alongside another research project as part of their semester coursework. Muschio directed this student research and I, as archaeologist, served as a Mentor.

Designing the PSAs: The Archaeological, Political, and Technological Context

The content comprising the PSAs was circumscribed by the electric utility's requirements that included, among other limitations, a message length of 72 characters translating into a 30-second long message. These requirements helped narrow the message to bare essentials. The first PSA would present the annual event's name and date and provide a URL leading to the scheduled program of talks (hosted at the PAF web pages). The second PSA would announce, "October is Pennsylvania Archaeology Month", followed by a URL leading to the PAF's main web page.

Given the options available through collaboration with the Drexel Digital Media Program, it was hoped that the PSAs could be more than the text-only messages routinely run on the electric company's marquee. PAF wanted images of local artifacts to illustrate the text. Muschio came up with an even better idea of using *animated* images—specifically short videos of artifacts that are first depicted *in pieces* that then merge together to form a whole artifact. He suggested using one artifact for the event-specific message and two artifacts for two different versions of the general Archaeology Month message.

There were no shortage of possible artifact candidates to use for these animations but PAF preferred objects representative of the co-sponsoring Independence National Historical Park and, in particular, artifacts related to one particular Independence Park archaeological site—the site of the National Constitution Center (known as *the NCC site*). Excavated between 2000-2003, this archaeological site is now the location of the *National Constitution Center* museum and this institution (The NCC) had offered to host the annual archaeology month event that would be held in October. This hosting was offered by the NCC as a public service and as a gesture of good will as part of an archaeological compliance agreement (more on this below). [While the NCC is a government-sponsored, non-profit entity, and while it is located within Independence National Historical Park, it is not part of that National Park Service unit.]

Much more was going on in making this image request than meets the eye. The NCC museum rests upon what was arguably one of the largest and most artifact-rich deposits of material culture dating to the birth and early development of the United States. More than 1 million artifacts were recovered during the museum's construction that

impacted a major swath of the colonial city of Philadelphia (most of a modern city block). The National Constitution Center is contractually obliged under federal legislation to complete the archaeological research on the material culture residues recovered from beneath their building. Independence National Historical Park, meanwhile, is the entity shepherding that legislated site compliance. However, promoting this extraordinary archaeological site is not something that INHP actively does. It is likewise not something that falls within The NCC museum's mission. Instead, the Philadelphia Archaeological Forum, an organization concerned with the archaeological resources of the city, serves as a major voice in getting word out about this site's existence and its extraordinary potential for new U.S. history insights. In making the PSA image request, PAF was promoting awareness about this important archaeological site and was also *communicating* to the power structures responsible for the research and stewardship of the collection excavated from the site.

PAF is formally registered as an *Interested Party* for the NCC site archaeology research that is being conducted as a joint project of INHP and The NCC. Interested Party status is part of the National Park Service's Management Policy for Consultation –*dedicated to seeking, discussing, considering and learning from the views of others, and, where feasible, seeking agreement with them on how historic resources should be identified, evaluated, and managed* (2006:13)– and also its Policy of Civic Engagement –*concerned with building collaborative relationships between the service and American society* (2006:14). PAF's desire to highlight NCC site artifacts in the PSAs was therefore not just an opportunity to showcase exceptional examples of material culture excavated from the city, from the NCC site, and from Independence Park. It was also an opportunity to remind the powers that be that an interested group remains vigilant in monitoring the government's and the NCC's cultural resource compliance responsibilities when it comes to the archaeology in the city of Philadelphia.

In short, this PSA project, and the decision to use NCC site artifacts as graphics for the PSAs, falls within PAF's mission which includes protecting and preserving archaeological resources in the City, furthering awareness of Philadelphia's rich archaeological heritage through educational programs and activities, and advising agencies and the general public on archaeological matters (Philadelphia Archaeological Forum *Mission Statement* 2010). PAF represents the city's broad constituents with members drawn from, among other groups, avocational archaeologists, architects, historians, journalists,

schoolteachers, college students, community organizers, university researchers, private sector archaeologists, retired persons, preservation specialists, and museum professionals. As a dedicated consulting party on multiple city, state, and federal development projects taking place within the city limits, PAF serves as an archaeological resource “watchdog”. It also regularly assists allied concerns, such as the Philadelphia Preservation Alliance, and local and special interest groups, such as the Philadelphia Neighborhood Alliance and the Delaware River Keeper. PAF actively promotes Philadelphia’s archaeology as a community resource offering multiple benefits. This includes service opportunities to Philadelphians of all backgrounds and walks of life, not least of all school students, college interns, MA and PhD students, and retired citizen volunteers. PAF promotes local archaeology by co-sponsoring publications and more recently a full-length, documentary film. Lastly, it operates a substantive informational web page about all things archaeological in the city of Philadelphia –an archive of original research/grey literature circa 1970-2010, lists of current archaeology events, online exhibits, featured articles, and local news coverage about the city’s archaeology (www.phillyarchaeology.org).

In fulfilling its mission, PAF functions as a local concern with local Philadelphia citizens in mind. Much as in Rome, Italy, archaeology in Philadelphia is a mainstay of the city’s main industry, which is heritage tourism. The archaeological residues in Independence National Historical Park, which commemorate the birthplace of American democracy, comprise a world Heritage site that is visited by millions of international visitors. These same ruins function as civil history and heritage touchstones for America’s own citizens who visit during school trips and family vacations (see, among others, Jeppson 2007; 2006). African American historical archaeology sites in Independence Park serve as powerful rallying points for local and national African American social identity (Levin 2011; Jeppson *et. al.* 2009). But it is not uncommon for a local populace to remain indifferent to the “tourist sites” in their own backyard. Such is the case with the residents of the city of Philadelphia. As a result, PAF works to generate local awareness about, and interest in, local archaeology among the broader Philadelphia-area community –including awareness about PAF itself as an open-membership, local citizens group dedicated to preserving and educating about that archaeology. The PSA project would go a good way toward serving this end.

The Archaeology in the Public Service Announcements

The archaeological evidence selected for use in the public service announcements is a miniscule representation of the vast assemblage recovered from the site of the National Constitution Center in Independence National Historical Park (Independence National Historical Park *Archeology and National Constitution Center* Web Page 2008). Between 1750 and 1850, this site was a densely populated and socially and economically diverse neighborhood. Nearly 1 million objects dating to the 18th and 19th centuries were excavated at this site from more than 200 artifact-bearing shaft features and 1100 square feet of original backyard ground surface. Among the vast range of evidence recovered were more than 300,000 ceramic fragments. To date, more than 1100 vessels have been reconstructed from this ceramic assemblage and three of these vessels were selected for use in the PSA animations. These include a small, hand-painted, pearlware saucer that accompanied the words, "Explore Philly's Hidden Past! 10/1 www.phillyarchaeology.org". A *dipt'* or annularware bowl, and a blue transfer-print-decorated plate, were featured, respectively, in the two general messages announcing, "October is Pennsylvania Archaeology Month www.phillyarchaeology.org" (Figures 2, 3, and 4). Both versions of the general message also featured a keystone (a wedge-shaped stone from the top of an arch) denoting the state of Pennsylvania's nickname, "The Keystone State".

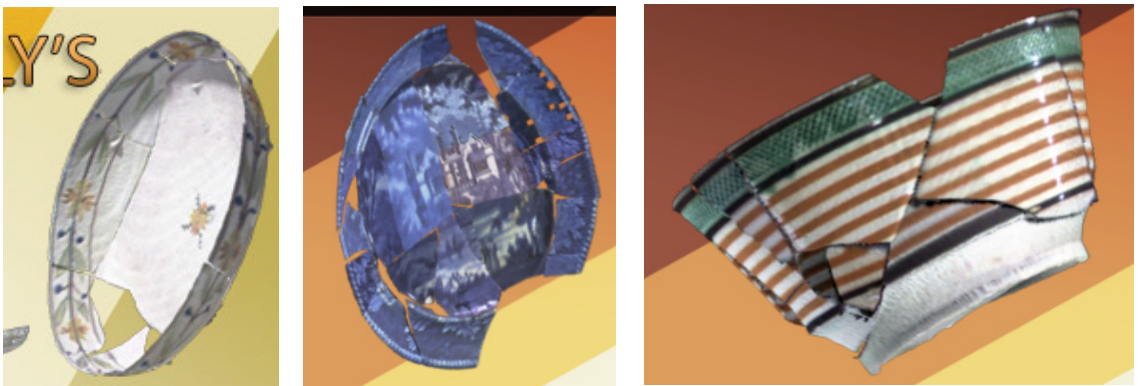


Figure 2, 3, and 4. Still photographs of the NCC/INHP ceramics used as images in the animated 3D PSAs. (Images based on research by G. Oxholm, animated by H. Winograd and M. Haas, 2011.)

The PSAs as Computational Archaeology Broader Impacts

The ceramic images used to illustrate the PSAs came to the project courtesy of local computational archaeology research. For the past three and a half years, a subset of the NCC site ceramic remains have functioned as the research medium for Drexel University research, developing new 3D computer applications. That project, *The 3D Colonial Philadelphia Project – Digital Restoration of Thin-Shell Objects for Historical Archeological Research and Interpretation* is an experiment in the rapidly growing field of computational archaeology where conventional archaeological data is used for purposes of analysis, interpretations and exposition in specially designed software and applications. While typically involving geographical information systems, statistical or mathematical modeling, and simulations, in this project it is archaeological ceramic analysis that lends itself to the application of computational *vision enabling technology* (see *The 3D Colonial Philadelphia Project* Web Page 2011). The objective of this research is to develop novel computer vision technology that will assist the ceramic artifact reconstruction process – if not fully automate it – thus enabling timely analysis, interpretation, and presentation of archaeological findings. This research is funded by the National Science Foundation Information and Intelligent Systems Division, specifically the Information Integration and Informatics Cluster III (grant award no. 0803670, 2008-2011, extended one year to 2012).

The 3D Philadelphia Project research involves researchers from five different fields working collectively to seek the 3D frontier; Computer scientist and electrical engineer Fernand Cohen (Grant PI) who researches virtual reconstructions using convex hulls of surface markings, computer scientist Ali Shokoufandeh (Co-PI) who is developing pattern classifications for reconstructions using texture and color descriptors, computer scientist Ko Nishino (Co-PI) who works in Image Registration and 3D recognition, new media specialist Glen Muschio (Co-PI) who is working on a long term virtual history interpretation and presentation project of the Philadelphia area, and myself, Patrice L. Jeppson (Co-PI), an historical archaeologist with a research interest in public archaeology, who facilitates the archaeological data set while also conducting ethnographic research (see, among others, Cohen 2010; Jeppson 2011, 2010; Jeppson *et al.* 2011; Shokoufandeh *et al.* 2010, and *The 3D Philadelphia Project* project web page for Publications 2011). Research access to the NCC archaeological assemblage is provided courtesy of archaeologists Jed

Levin, Deborah Miller and William Hoffman of the Archeology Lab at Independence National Historical Park.

The computational scientists, along with their students, are interested in the NCC ceramic remains because of their “thin” composition. Ceramic shapes are formed by a thin smooth surface rather than a solid volume and, in the vernacular of computational language, constitute “thin-shell” objects. The grant research employs the NCC ceramic remains toward the development of novel computer vision technologies that will reconstruct thin shell objects (aka ceramic vessels) in 3D (three dimension). Toward this end, the computational researchers appreciate the ceramic artifact shapes and designs that are useful for writing the mathematical algorithms that are central to the computer vision and pattern recognition development. It is these algorithms that will allow for 3D computer reconstructions. In this research the archaeology functions as a proxy medium. Once developed, such 3D computer vision applications will have real world implications for any and all convex shapes and their reconstructions, not just archaeology ceramics.

The PSAs drew upon this computational research, especially that being conducted in Drexel University’s Department of Computer Science –home to research and education programs in software engineering, artificial intelligence, cognitive modeling and human computer interaction, computer vision and graphics, high performance computing, networks and security, symbolic computation, and computer science education. In particular, it involved the work of Computer Science PhD student, Geoffrey Oxholm. Oxholm, working with NSF grant Co-PI Nishino, has developed cutting edge software that virtually reassembles broken artifacts by using features found on the edges of ceramic fragments (Oxholm and Nishino 2011a, 2011c). This work utilized several of the cups, plates, and bowls recovered from the NCC site excavations. These vessels and their fragments were scanned with a 3D Minolta scanner and the resulting digital images were used for modeling the automated artifact reconstructions. In specific, Oxholm’s application makes use of the color and shape features on the broken fragment edge (*boundary contour*) to create a colorful image that is then used to find and validate possible matching fragments. (Figure 5.) This process of identifying and validating candidate matching sherds is repeated until the object is reassembled. The application is demonstrated in the video presentation (2011b) *Reassembling Thin Objects of Unknown Geometry*, available for viewing on YouTube at <http://youtu.be/HU7EumVM9Fc> (Length: 2:15 minutes).

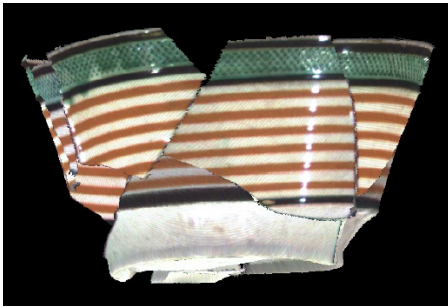


Figure 5. Vessel reconstructed using Oxholm's computer vision application. (Research image by Geoffrey Oxholm, 2011.)

Oxholm provided Muschio's digital media students, Winograd and Haas, with three research files he had compiled (on 3 different vessels) for use in the PSAs. With Oxholm's assistance, Winograd and Haas rendered this scientific data for use in media design software. They then used the rendered 3D images to create the animations using the computer program Autodesk Maya. The three animated artifacts were then inserted into movies that Winograd and Haas made using the program Adobe Premier. The first eight seconds of each movie features one of the 3D vessels first presented as several fragments that then come together to form a mended vessel. The reconstructed 3D vessel then rotates several times and then fades out. (Initially the object continued to rotate over the scrolling text message). The remaining twenty-two seconds of each PSA is a "running ribbon" of letter text set against a vibrant color pallet of oranges and yellows. The color choice was selected by Winograd and Haas to compliment the colors of the fall season. This text portion of the PSA was created using Adobe Photoshop.

The PSA creation process involved four iterations. Refinements were made to the color pallet and the degree of shadowing effect. The margin and the saturation level of the text letters were also adjusted to ensure better readability. Winograd and Haas' stated design goal was a visually striking but sophisticated presentation that was not too cluttered. The conceptual idea was that the PSAs animation sequence would first capture the viewer's attention, then the message would be read –with the viewer hopefully understanding the message's intent.

Importantly, the translation of Oxholm's science files for media use revealed an unexpected complication relevant for computer science and new media researchers: Science rendered files are not easily made suitable for entertainment or education media uses, while the color spectrum typically found in computational science research is not the best choice for design needs. Winograd and Haas found that the tools commonly used in the media design environment to convert files wouldn't work with Oxholm's files. Indeed, they and Muschio discovered that the standard format computer science PLY file is not known to digital media students at all. This difference in format, revealed by the PSA project, possibly explained an early problem faced in the NSF grant research. Initially, digital media students were tasked with making the 3D scans of the NCC ceramic fragments and not all of the computer scientists and engineers involved in the NSF project were able to use the resulting images. As Muschio explained the problem, "the difference between computer science and media arts is like Mac versus PC, or like being a Chevy family or a Ford family" (referring to car company loyalty). This small matter, which has significant implications, was a valuable finding for the 3D Philadelphia Project's aim of turning computational science data into media assets viable for public history interpretation. Thanks to the PSA project, these first NSF grant research files are now in a format offering media versatility so the material can be used for multiple audience aims.

For Muschio, Winograd and Haas the PSA development process was a valuable academic learning experience. The project gave the students practice with teamwork and with meeting client demands. They learned new software programs (namely video editing) and new ways of doing things with programs they were already familiar with. They improved upon what they knew while also learning to work in the multi-disciplinary environment that is the 21st century culture of education. Winograd and Haas presented a professional research poster on the PSA project at the STAR Research Day, a practicum required by all STAR students at the end of the summer term. (Figure 6 and 7; [Showcase Poster](#) [pdf file 12120K].) There, upon seeing the research results (then approaching conclusion), the Dean of the College requested the PSAs for use on the school's webpage.

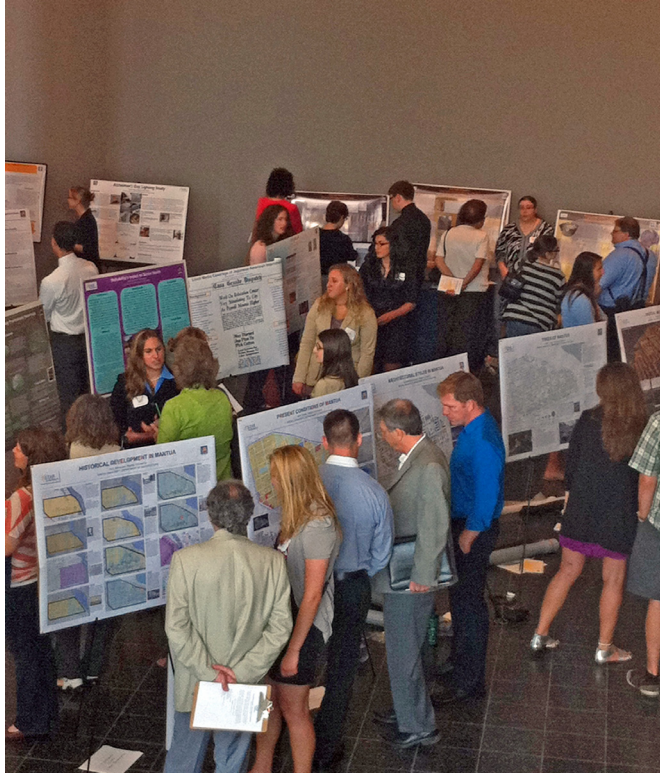


Figure 6. The PSA project was presented at Drexel University's Penoni Honors College, STAR Student Summer Showcase (Photo: P. Jeppson, 2011)



Figure 7. Matthew Haas, Glen Muschio, and Hannah Winograd with the poster presenting the PSA project (Photo: P. Jeppson, 2011)

On a more pragmatic level, the project's development process constituted public outreach for both Oxholm and for the Drexel University Computer Science Department. It represented cross-department collaboration between the Computer Science and Media Arts schools, and it produced *broader impacts* relevant for the NSF grant research under the "public outreach" and "contributions to other disciplines" categories (see *The 3D Philadelphia Project Broader Impacts* 2011). Meanwhile, the Archeology Lab at Independence National Historical Park had made publicly available some of the park's cultural resources and did so for local educational concerns. This assisted the park in building bridges to local community institutions.

Archaeology Awareness as a Community Service: the PSAs and the Crown Lights Marquee

The PSAs were crafted to fit a unique electronic billboard configuration that has been part of the Philadelphia skyline since 1976. Known as the Crown Lights Marquee, this billboard encircles the top of the 27-story tall, downtown headquarters of the Philadelphia Electric Company known as PECO –the largest electricity and natural gas utility in Pennsylvania serving more than 1.5 million electric customers and a half million natural gas users. PECO is a hundred year old company that is widely recognized for its community service and economic development and, more recently, for its environmental efforts. For the past 35 years PECO has used its Crown Lights Marquee to salute local community and non-profit organizations. It has run 17,500 messages on behalf of these concerns as a community service. This is just one of several community ventures PECO has undertaken as a business leader trying to make a difference in the community (*PECO Sponsorships and Programs* Web Page 2002-2009).

The Crown Lights Marquee is formed by an electronic billboard made up of two exceptionally wide screens, each of which covers a long and a short side of the building (the east and south sides, and the north and west sides). These screens are themselves comprised of a long series of columns of lights with blank spaces in between. The rows upon rows of columns, in turn, hold two million LEDs, or light-emitting diodes. These columns of lights are 40 feet tall (approximately 10 meters high). The LED's are part of PECO's 15 million dollar Green Initiative whereby the utility aims to help preserve the environment

and help customers become more environmentally responsible (PECO *Environment* Web Page 2002-2009).

With much fanfare, the billboard was recently renovated with the LED system replacing 2600 screw-in, incandescent light bulbs. The new system uses approximately 40 percent less energy while offering more options. The billboard is now capable of displaying full color text and graphics, including detailed animations, while the old system allowed only white letter text scrolling as a ribbon across the screen. However, except for in-house (PECO-created) messages, and one local business association's message, the PSAs projected using the LED screens are, to date, merely colored versions of the white letter messages projected since the marquee's debut in 1976. This is likely because the unusual aspect ratio of the screens requires a specific image resolution (2,224 pixels wide and 360 pixels high) and the nonprofits requesting Crown Light messages have neither the technical expertise nor the time to devote to crafting a more technically rich message. Fortunately, the Philadelphia Archaeological Forum was able to do so through its collaboration with the Drexel Media Arts Program.

Early in the fall, Muschio presented Winograd and Haas' message designs in storyboard form to PAF and to Independence Park (archaeologist Jed Levin) for content and aesthetic design approval, and to PECO's Crown Lights coordinator for technical approval. The latter forwarded the storyboards to the Crown Lights installation firm (the YESCO company) to confirm the PSAs projection viability. All agreed with Winograd and Haas that the animated 3D object's rotation in the video needed to be slowed down and PECO requested that the object fade out rather than float in front of the text ribbon for the duration of the message. Winograd and Haas finalized the videos and Muschio provided them to PECO for projection. These were lower resolution videos of 72 dpi (dots per square inch). The file size in toto was 100 Megabytes. The final PSA videos can be viewed on YouTube (Note: these are large file downloads). The "Explore Philly's Hidden Past! 10/1 www.phillyarchaeology.org" PSA is posted at <http://youtu.be/CGfM-Gwsvvs> (229MB). Version 1 of the "October is Pennsylvania Archaeology Month www.phillyarchaeology.org" PSA is posted at <http://youtu.be/xRJBG2E7wMM> (363.9MB) and version 2 can be found at <http://youtu.be/HejvRJv9eL4> (343.9MB).



The Finished Product in Operation

PECO operates their Crown Lights Marquee from 5pm to 9am each evening, projecting public service announcements requested by local community and non-profit groups. These are presented in rotation with the time and temperature. Approximately eight PSAs are run each quarter hour alongside rotating PECO-specific messages. The block of messages is repeated so that each PSA is projected approximately 4 times an hour for 16 hours, or 64 times each night.

The projected PSAs can be viewed from all directions and can be seen from as far away as 4 miles. The lighted messages even reflect on the adjacent Schuylkill River. PECO estimates that 100,000 persons a night can see the messages. While this is quite a number of viewers, it is a small portion of the city's population.

PECO agreed to run our event-specific PSA during the last week of September, just prior to the PAF/INHP *Explore Philly's Hidden Past* event that would be held on October 1st. This scheduling would help announce the event while also highlighting local archaeology. PECO would run one of the two general messages during the first week of October, the month designated as Archaeology Month in Pennsylvania. PECO would rotate the second general message into the PSA mix when there was space available elsewhere during the month.

Importantly, I considered the PSA project to be an act of public outreach in itself. I was happy to have these media art products as a new archaeology month offering, regardless of any responses that would or would not be garnered courtesy of the specific PSA message content. It was never assumed by me that archaeology month generally, nor the local archaeology month event specifically, would be of interest to *all* those who might see the PSAs. My hope was that the PSAs would target those who *never* thought about archaeology and who are not particularly interested in the subject. While the PSAs might play a role in getting word out about this year's local event, the main channels for announcing that were otherwise established –newspaper listings, print ads, listserv notices, mailings, and word of mouth. I would be satisfied if viewers of the PSAs merely read the word "archaeology" during the month of October when they otherwise might not have, and if some wondered why archaeology was being presented on the Crown Lights –even if they never acted upon their curiosity. Some of the viewers, but by no means all, would, I presumed, be motivated to look up the web page URL included in the PSAs. That development might or might

not generate new attendance for the *Explore Philly's Buried Past* event. But that was almost beside the point. As far as I was concerned, the PSAs were an event of "public archaeology" all on their own.

This possibility of successfully targeting less interested publics is not something that can be evaluated by the web traffic statistics generated by the URLs in the PSAs. The web logs for those URLs do indicate a sharp increase in the number of original visitors during the periods when the PSAs were running on the marquee. (Figures 8 and 9). However, the statistics present a relative comparison against a nominal total number of visits. While the traffic statistics will appear interesting to some, others will find them inconsequential. Interestingly, not all the visits occurring during the PSA runs occur during the overnight hours —meaning that some visitors likely looked up the URLs during the daytime after seeing the PSA the evening before. This would suggest that the PSAs were successful in generating some curiosity or interest that was followed up on by members of the public engaging with the web page's archaeology information.

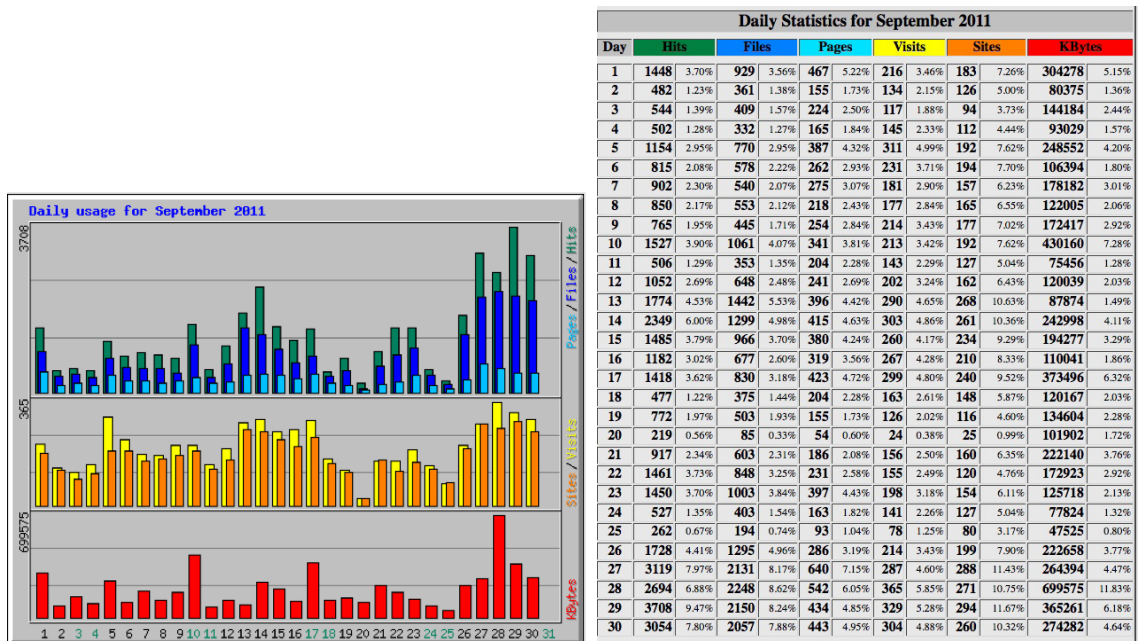
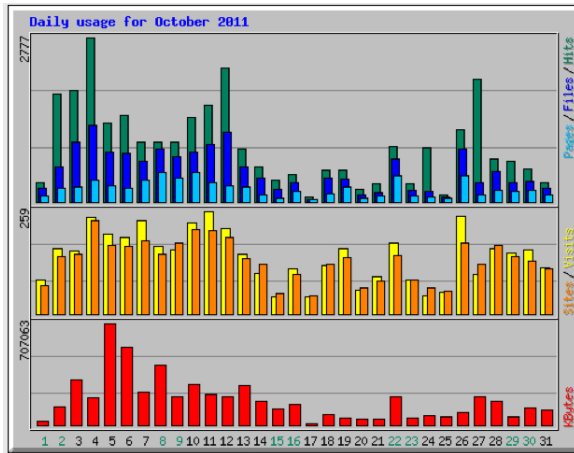


Figure 8. Web Page logs for September 2011 indicate a sharp rise for period September 26th-30th when the event-specific PSA was in operation.



Day	Hits	Files	Pages	Visits	Sites	KBytes						
1	329	1.10%	240	1.44%	103	1.46%	86	1.90%	72	3.45%	27931	0.51%
2	1822	6.10%	595	3.57%	236	3.35%	166	3.67%	146	7.00%	124862	2.28%
3	1876	6.29%	1013	6.08%	251	3.56%	159	3.52%	152	7.29%	314993	5.75%
4	2777	9.30%	1292	7.75%	370	5.25%	243	5.38%	234	11.22%	188068	3.43%
5	1328	4.45%	837	5.02%	270	3.83%	201	4.45%	172	8.25%	707063	12.90%
6	1457	4.88%	829	4.97%	234	3.32%	192	4.25%	169	8.10%	538092	9.81%
7	1005	3.37%	693	4.16%	365	5.18%	235	5.20%	185	8.87%	226199	4.13%
8	1013	3.39%	899	5.39%	504	7.15%	169	3.74%	150	7.19%	413335	7.54%
9	1003	3.36%	770	4.62%	413	5.86%	163	3.61%	178	8.53%	200268	3.65%
10	1432	4.80%	838	5.03%	507	7.19%	229	5.07%	212	10.16%	283372	5.17%
11	1642	5.50%	971	5.83%	332	4.71%	259	5.73%	210	10.07%	213960	3.90%
12	2257	7.56%	1175	7.05%	278	3.94%	216	4.78%	193	9.25%	199912	3.65%
13	895	3.00%	587	3.52%	247	3.50%	152	3.36%	140	6.71%	279258	5.09%
14	599	2.01%	404	2.42%	128	1.82%	102	2.26%	125	5.99%	169731	3.10%
15	375	1.26%	215	1.29%	57	0.81%	45	1.00%	52	2.49%	116366	2.12%
16	467	1.56%	328	1.97%	179	2.54%	114	2.52%	99	4.75%	140631	2.57%
17	87	0.29%	54	0.32%	48	0.68%	45	1.00%	46	2.21%	15107	0.28%
18	535	1.79%	406	2.44%	143	2.03%	122	2.70%	125	5.99%	74369	1.36%
19	538	1.80%	390	2.34%	248	3.52%	164	3.63%	142	6.81%	46673	0.85%
20	208	0.70%	131	0.79%	68	0.96%	61	1.35%	67	3.21%	38922	0.71%
21	313	1.05%	166	1.00%	108	1.53%	93	2.06%	82	3.93%	44947	0.82%
22	932	3.12%	719	4.31%	447	6.34%	178	3.94%	149	7.14%	198521	3.62%
23	308	1.03%	189	1.13%	106	1.50%	85	1.88%	85	4.07%	52819	0.96%
24	920	3.08%	173	1.04%	80	1.13%	47	1.04%	67	3.21%	66719	1.22%
25	122	0.41%	82	0.49%	65	0.92%	55	1.22%	59	2.83%	62048	1.13%
26	1217	4.08%	905	5.43%	437	6.20%	247	5.46%	180	8.63%	88170	1.61%
27	2074	6.95%	335	2.01%	128	1.82%	100	2.21%	124	5.94%	194930	3.56%
28	729	2.44%	512	3.07%	203	2.88%	164	3.63%	173	8.29%	170670	3.11%
29	690	2.31%	323	1.94%	172	2.44%	153	3.38%	145	6.95%	59240	1.08%
30	558	1.87%	353	2.12%	198	2.81%	163	3.61%	133	6.38%	118412	2.16%
31	340	1.14%	243	1.46%	127	1.80%	117	2.59%	114	5.47%	107079	1.95%

Figure 9. Web Page logs for October 2011 indicate a sharp rise during the first week of the month when the general PSA was in operation on the marquee. The second general PSA was used in the PECO Crown Lights rotation when there was space during the remainder of the month.

In any case, the web logs do not reflect in any way the number of people who presumably saw the PSAs and therefore experienced what can be considered a new episode of public archaeology. The web logs also do not reflect the audience members at the *Explore Philly's Hidden Past* event —approximately 200 people— who saw a talk that presented the PSA videos (Jeppson *et al.*, 2011). Of the 105 attendees who signed in to that event, only one mentioned learning about the event from the message on the Crown Lights Marquee.

Beyond this, it is known that a write up of the project was done for the Drexel University Computer Science Department web page and that Drexel University and the Philadelphia Archaeological Forum both sent Press Releases about the project. These comprise ancillary “public archaeology” related to this project. The PSA project was likewise adapted as content for the PAF web pages. It produced postings for the PAF Facebook page and for the Facebook page associated with this journal. Indeed, one might go so far as to state that this formal reporting is, to an extent, also part of this project’s “Public Archaeology”. I have deliberately selected *AP: Online Journal in Public Archaeology* as the publication venue for this case study because this is an electronic-

based, cyber publication. This means that this project's data —the animated 3D public service announcements— can be streamed as part of the publication. More importantly, in aiming to expand and improve access to public archaeology and public archaeology research, this journal is also published as "open-access". Reporting on the case study here offers another opportunity for our public service announcements to continue to be publicly available as a public service.

Outcome Verses Experience in Public Archaeology

This public archaeology project leveraged local archaeological resources, computer science research, and media arts expertise to promote archaeology awareness. It produced colorful, 3D, animated public service announcements, forming a unique and special Philadelphia contribution to Pennsylvania Archaeology Month. But as an example of public archaeology, this PSA project met much more than archaeology's needs. In bringing together science, art and technology, the project constructed a community of collaboration and participation where outside concerns used archaeology for their own needs. Toward this end, the archaeology functioned as *material culture of the present*. The archaeological data transformed and constructed everyday life in the here and now. It moved through different hands into different uses beyond the discipline's borders.

In demonstrating this dialogic process, this case study offers a cautionary lesson about evaluating public archaeology efforts. This reporting focuses on the processes of collaboration that produce the archaeology-themed public service announcements. The public's engagement with this archaeology registers as advocacy, academic learning, and as community involvement. These qualitative measures deserve to be as recognized, respected, and celebrated, as much as, if not more than, the traditional quantitative outcomes usually used to validate and evaluate public archaeology. As demonstrated here, public archaeology practiced with a dialectical methodology has tangible but less calculable results. It can elicit how communities use archaeology to better understand and reflect themselves. It can help archaeology to better ground its research in community-based needs. It can also help make transparent the facilitating role that archaeology and archaeologists play when a community uses the past for their needs in the present.

In short, this PSA case study reveals the dichotomy that exists between *outcome* and *experience* in public archaeology —between quantitative and qualitative assessment, between discipline-based outcomes and dialogic-driven collaboration. It comes down to a distinction between a public archaeology that is the *destination* and a public archaeology that is *the journey*. It behooves us not to sacrifice our experience to outcome.

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Public Archaeology 2.0: Facilitating Engagement with Twitter

Nicolás R. LARACUENTE

University of Kentucky. Department of Anthropology

Abstract

Public archaeology increases public awareness of archaeological issues and their practical applications to modern social concerns. Classroom visits, hands-on activities, site tours, and other events give archaeologists the opportunity to engage the public and transfer knowledge through face-to-face interaction. However, engagement ends at the conclusion of the event, leaving the audience with an incomplete understanding of the subject. Twitter, a social media application, transcends these spatial and temporal limitations by allowing sustained multi-directional communication among archaeologists, their audience and others who never attended the original event. However, there are problems with assessing the success of public archaeology projects and the presentation format differs dramatically from traditional forms of publication.

Key words

Public Archaeology, Twitter, Engagement

Introduction

Archaeology is the study of human societies through their material remains. One of the main goals of public archaeology is to facilitate understanding of archaeological techniques and the results of our excavations through a variety of methods. Classroom visits, hands-on activities, site tours, and lectures provide opportunities for public engagement and education. Audiences range from children to adults, with varying skill levels and varying interests in archaeology. These events are also time-limited. They last anywhere from a few minutes to a few hours and conclude with a few interested parties who linger to ask follow-up questions. A complete understanding of the activity's message depends on the notes taken by the audience, handouts included in the event, or their memory.

This paper argues that social media, specifically Twitter, can facilitate archaeological engagement by providing opportunities for interaction past the time limits of the original event. Employing social media effectively requires a critical understanding of the technology at hand in addition to an expert understanding of material relayed through that medium. Twitter, a social media micro-blogging application, was the focus of this research. Examining the utility of Twitter as an information communication technology (ICT) device within the context of archaeological engagement requires shifting focus from the technology itself to the behavior of the people that use it.

This paper begins with a hypothetical public archaeology event to illustrate different types of learning behavior. In the second section of this paper, Twitter is described, contextualized within similar types of communication, and the challenges that faces this mode of communication are assessed. The paper concludes with examples of how Twitter has been used by archaeologists and a discussion of the basic problems facing any archaeologist interested in using Twitter.

Public Archaeology and Learning Types

People learn in a variety ways (see Donovan et al. 2000: Chapter 2 and 3). Public archaeologists often encounter two learning types: directed and free-choice learning. Directed learning works best when the educator has control over the situation in terms of content and audience participation (Power and Robinson 2005:19, 23). An example of this approach is a school field trip where students have worksheets with questions they have to answer for class. Students may ask questions that are prompted by their worksheets. The worksheets direct their attention assisting them with concentrating on the task at hand. Together, the worksheet and questions can guide audiences to the predetermined learning goals.

Individual interests guide free-choice learning. The audience's attention will wander to things that interest them (Chung et al. 2009:43). Free-choice learning audiences ask questions that are prompted by their interests. A good example of this type of situation is a museum. Usually, an audience has a choice of which exhibits are visited and how they are experienced. A visitor can read all of the labels or randomly browse. The entire exhibit can be experienced at once or over multiple trips. Learning activities designed for free-choice learning need multiple entry points or hooks to grab someone's attention and hold it long enough to transfer the lesson's content (Pearce 1990:162-163).

Public archaeology events that focus on educational goals and learning outcomes are conscious of the enduring understandings they are meant to communicate. Enduring understandings are the big ideas that should stick with an audience even if none of the details are retained after the event's conclusion (Wiggins and McTighe 1998:10-11). Public archaeology events that occur at live excavation sites have several enduring understandings in common. The following are three enduring understandings used in classroom exercises conducted by the author, adapting lesson plans from Project Archaeology's *Intrigue of the Past*.

First, archaeology is destructive. Excavations essentially destroy the archaeological record. Archaeological techniques record the maximum amount of data from an excavation. They are often employed with a specific research question and excavation plan in mind (Smith et al. 1996:41). An excavation that lacks proper documentation or excavation technique destroys archaeological data. This data is gone forever and cannot be retrieved by conducting the excavation again.

Second, archaeological materials are limited. If an archaeological site is destroyed there are no second chances (Letts and Moe 2009:131). This is one reason why archaeologists test portions of sites rather than excavate a site in its entirety. If we leave a portion of the site undisturbed, future archaeologists can return to the site with new questions and different methods.

Finally, people bestow meanings on material things. This idea can be communicated with nearly every artifact that comes out of the ground. Ceramic sherds are often correlated with specific cultures. Decorative designs on pottery can reflect the identity of the potter or relay a story that is part of that society (Smith et al. 1996:95). Explaining how to distill information from an artifact assemblage assists in the transitions from viewing artifacts as garbage to viewing artifacts as potential sources of data.

Communicating these enduring understandings is feasible in a controlled setting like a classroom. However, when these issues are addressed during a live excavation, problems occur. For example, during the 2006 University of West Florida Field School, the learning goals were to communicate the three enduring understandings discussed above and convey information about the history of the site (Figure 1). Instead of a lecture, excavation tours more closely resembled controlled chaos. Common questions included: Why is she wearing socks? What are those orange things on the ground? Is that a bottle? How much is that worth? How does she know what to put on her paperwork? How

do you make the walls so straight (Figure 2)? While these are all good questions and great teachable moments, these questions may not contribute to comprehension of the event's learning goals.



Figures 1 and 2. The excavation area during the 2006 University of West Florida Field School, Pensacola, Florida. & Elements that distract visitors from the learning goals of an archaeology tour. Photograph by author.

This scenario demonstrates a challenge to achieving learning goals through public archaeology. In a standard classroom, a lesson plan has learning goals and a predetermined route for getting there. Distractions can be eliminated through rules against speaking or texting during class. Assigned readings prompt the topics discussed. Student seating can be arranged in a circle to promote discussion or facing forward to encourage listening to a single speaker.

An excavation site is essentially an outdoor classroom. Unlike its indoor counterpart, educators lack control of the learning environment and have to plan for a variety of learning situations and potential distractions. Public archaeologists need to plan for crowd control and safety as they guide a group of people through an excavation site. The tour content at a live excavation needs to be flexible, as the information is tied to the stratigraphic levels exposed at the time of the tour. While questions about the excavation, such as those listed above, can provide

an effective hook to talk about excavation methodology that can lead back to an enduring understanding, there may not be enough time to address the question fully before the tour concludes. Learning can be facilitated through planning and preparation which can include a critical approach of how to engage multiple learning types.

There are multiple ways to engage free-choice learners. Social media can be a tool to engage this type of audience. This engagement must begin with a shift away from thinking of free-choice learning questions as distractions. If these questions are recognized as interest in the process of archaeology, then the barriers to learning shifts from the audience to the limited amount of interaction between audience and archaeologist. Social media applications transcend the spatial and temporal boundaries of public archaeology events by allowing sustained multi-directional communication among archaeologists, their audience and others who never attended the original event. Incorporating social media applications, such as Twitter, into public archaeology allows archaeologists to extend and sustain engagement with the audience.

The Development of Twitter

Over the past few years, social media has developed into a world-wide phenomenon. On its face, discussing archaeology through the Internet is not new. Listservs have been used to exchange information between professionals since 1986 (Hirst 2001). In the 1990's, Carol McDavid successfully engaged community stakeholders through a website that publicized the Levi Jordan Plantation excavations (McDavid 2004:50). While similar to older internet tools, social media takes advantage of a wider diversity of web platforms available, enabling information to be exchanged in multiple directions with greater speed.

In her book *All a Twitter*, Tee Morris traced the development of elements of the Internet that enabled the rise of Twitter. She argues that the Internet was one-sided during the 1990's. That is, Internet users were limited to moving from webpage to webpage until the development of new programming languages that enabled the creation of forums (Morris 2010:9). In 2000, Real Simple Syndication (RSS) facilitated the development of blogs by enabling Internet users to subscribe to a blogger's content. This resulted in the rise of user generated content and coincided with the development of social networking which enabled users to choose how and when they interacted, as well as the variety of media available to them (Morris 2010:10-11).

In 2004, Odeo, a software company, was founded by Ev Williams and Biz Stone. They hired a software engineer, Jack Dorsey, and challenged him to solve a communication problem within their company (Israel 2009:16-20). Odeo employees were scattered across Silicon Valley and all worked on their own time schedules. It was difficult to find times that everyone could meet in person and nearly impossible to assess productivity. Inspired by technology used to communicate emergency vehicle routes in real-time and the availability of SMS text messaging, Dorsey created an open-source communication tool named TWITTER (Israel 2009:16, 22-25, O'Reilly and Milstein 2009:33).

TWITTER was a communication tool with viral elements. The more people that were on TWITTER, the more useful it became. As a result, TWITTER spread organically; one person used it and told another, resulting in a constantly growing pool of users (Israel 2009:133). Its popularity exploded to around 60 thousand users when Williams, Stone and Dorsey took repackaged their communications tool in a new company, Twitter Inc., and marketed it at the 2007 SXSW conference (Israel 2009: 32, 39). Several high profile events resulted in Twitter becoming firmly entrenched in the social media ecosystem.

On April 10, 2008, James Buck, a student journalist, was unjustly arrested in Egypt. He tweeted one word, "arrested", when the authorities were transporting him to the police station (Israel 2009:1-3). News of his plight traveled through a network of people connected to him via Twitter, ultimately leading to his release a few days later and a free plane ride back to the United States (Simon 2008).

On January 15, 2009, US Airways Flight 1549 landed in the Hudson River. News media rushed to cover the story, but the first picture uploaded to the Internet was not from a traditional news source. It was from Twitter. A twitter user, @JKrums, wrote, "<http://twitpic.com/135xa> There's a plane on the Hudson. I'm going on the ferry to pick up the people. Crazy." (Israel 2009:200).

A terrorist attack in Mumbai, India, during November 2008 prompted messages that were dispersed globally through Twitter (Comm et al. 2009:xiii). Like the Hudson River event, Twitter was used to broadcast information. It followed a pattern that caused the business writer, Joel Comm, to state that "we now live in a time where ordinary citizens are empowered to be conduits of information to the masses like never before" (Comm et al. 2009:xiv).

These conduits were displayed during global news coverage, highlighted when Oprah televised her first tweet, and manipulated

during a well-publicized race between celebrity Ashton Kutcher and CNN to be the first to acquire 1 million followers (Comm et al. 2009:21). A 2008 survey of Twitter's users determined that 63% were male and the average age of Twitter users was 35-44. The realization that Twitter's user base was older people prompted businesses to join the service to reach potential customers in a different way (Comm et al. 2009:6). Companies, such as the computer company Dell, began providing customer service directly through Twitter (Israel 2009:47-48). This approach to customer service requires a research to prevent social media efforts from being a detriment to the company's image (O'Reilly and Milstein 2009:189).

Zoological parks have embraced the effort it takes to engage customers through Twitter. An article in *Connect*, a publication by the Association of Zoos and Aquariums, notes that social media is "not always free, not always easy, and not everyone who is doing it is doing it well" (Whitman 2010:8). Ciri Haugh, from the Houston Zoo, remarked that it takes constant research to stay ahead of the curve. Haugh's research determined that trivia, photos and animal facts garnered the most attention (Haugh 2010:13). Research also determined that 48% of African Americans and 47% of Hispanics accessed the Internet via mobile devices. For Houston Zoo, this makes Twitter especially effective in engaging those segments of their community (Haugh 2010:13).

Using Twitter

Twitter is a micro-blogging application that allows one to send 140 character "tweets" to their "followers". Tweets can be received via the Twitter website, third party applications, feeds embedded in websites, or text messages. Followers can respond to the original user or "retweet" the message to their followers.

It is important to realize that Twitter does not stand alone. It is a tool in the social media toolkit (Israel 2009:8).

As part of a technological tool kit, Twitter has to be used in conjunction with other technologies. With the rapid growth of technologies in the "Web 2.0" environment, it may not be possible to understand each element of social media. Some writers argue that Twitter should be used as a facilitator that directs attention between different social media elements (Morris 2000:15). Others view Twitter as a chance to distribute ideas and comments about individual interest and expertise (O'Reilly and Milstein 2009:11). Several entrepreneurs

approach Twitter as a chance to check public opinion of their products and ideas (Israel 2009:50). While Twitter may seem like a new way to communicate, the circumstances of its development and patterns of its use are similar to that of the telegraph.

Both Twitter and the telegraph built on existing infrastructure. Telegraph lines were installed along railroad lines (Carey 1989:203). After its implementation, the telegraph allowed communication that improved the railroad's operation through prevention of train collisions. Twitter was operationalized using the existing cellular phone and Internet infrastructure. It has improved communication by removing barriers by allowing people to bypass secondary sources with a direct link to primary sources (Israel 2009:66-68). For example, at the 2010 Modern Language Association Convention in Philadelphia, the organization's executive director, Rosemary Feal, invited her twitter followers to an exclusive event. Her Twitter followers, mostly graduate students or recently minted PhDs, would have never heard of this normally private meeting with elite social leaders, supporters, and financial donors to the institution (Golden 2010).

The widespread use of Twitter prompted criticisms of the technology's 'trivialization' of the English language (Golden 2010). Ironically, the same issue confronted the telegraph. The translation of written language into dots and dashes, initially used to play long-distance chess, was criticized by Henry David Thoreau as 'trivialization' of the English language, but his criticisms were drowned out by those who embraced its potential (Carey 1989:202-203). Ernest Hemingway cited the telegraph as a major influence on his attempts to "pare his prose to the bone" (Carey 1989:211). The broad reach of the telegraph also resulted in the objectification of the news in order to be palatable to people of every political type (Carey 1989:210).

Unlike the telegraph, Twitter's structure does not automatically result in objectification of information. Indeed, it can result in the exact opposite. Twitter users do not have to follow each other to see the information. This publically accessible, asymmetrical model has two implications: 1. Twitter users are more likely to find information by strangers 2. People will unfollow you if you are not interesting (O'Reilly and Milstein 2009:7, 25). The realization that users can selectively follow who they are interest in results in the creation of social 'islands' where everyone is of the same mindset. The opt-in nature of Twitter is a vivid contrast to the required participation of the telegraph. Instead of a movement toward objectivity, it is increasingly easy to find subjective information portrayed as fact.

The 140-character limit of tweets forces an author to strip a message to its bare essentials. The size of this chunk of information moves quickly and is distributed through a variety of channels (Levinson 2009:134). As the number of accounts a user follows increases, the amount of tweets the author sees increases exponentially, resulting in an information overload. When “people treat [Twitter] as a river of messages, dipping in when they happen to be next to the stream”, information contained in a tweet may lose its context, or worse, they may not see it at all (O’Reilly and Milstein 2009:155, 165). This is a reality of working with social media, users devise multiple ways for effectively sifting through this data (Peneberg 2010:76). Understanding the structure of Twitter as a social media tool is only part of a critical approach. There has been some research toward understanding the behavior of the people who use these tools as well.

According to Whitman these social media user behaviors can be classified in six types (Whitman 2010:9):

1. Creator: submits photos and other content
2. Critic: leaves comments
3. Collector: Retweets, Social Bookmarks, RSS Feeds
4. Joiner: becomes a fan on Facebook, follower on Twitter
5. Spectator: reads blogs, watches YouTube videos
6. Inactive: No social media use.

These behaviors constantly vary or occur simultaneously, which prompts a dynamic approach to social media when engaging these communities. Whitman and others encourage an approach to Twitter where the user consciously chooses their approach and adapts it based on feedback from measurement of web traffic (Whitman 2010:9). If this approach is used in conjunction with a critical approach to public archaeology, the audience and quality of engagement can be increased.

Public archaeologists that participate in social media would benefit from an approach informed by the issues discussed above. Information presented through Twitter needs to be distilled in a different manner than work published in an academic journal or newspaper articles. The following section provides some examples of archaeologists using Twitter to relay information on publications, excavations and other archaeological events.

Examples of “Public Archaeology 2.0”

It is impossible to describe all of the examples of how Twitter could be used in archaeology in a single paper. In this section, three examples demonstrate how Twitter amplifies and supplements public archaeology. A fourth example demonstrates how Twitter can be used as an organizing tool to facilitate large events. The section concludes with a brief discussion of how individuals with an interest in archaeology use Twitter.

To illustrate amplification, the author traced the impact of his poster for the 2010 Southeastern Archaeological Conference in Lexington, Kentucky. The Monday before the conference he uploaded a poster, titled “The Archaeology of Kentucky Bourbon”, to a document-sharing site and posted the link on Twitter. Within a few hours, 3011 twitter accounts had received his tweet either directly or through followers in his Twitter network. This exposure resulted in 145 views of his poster by people who did not attend the conference (Figure 3).

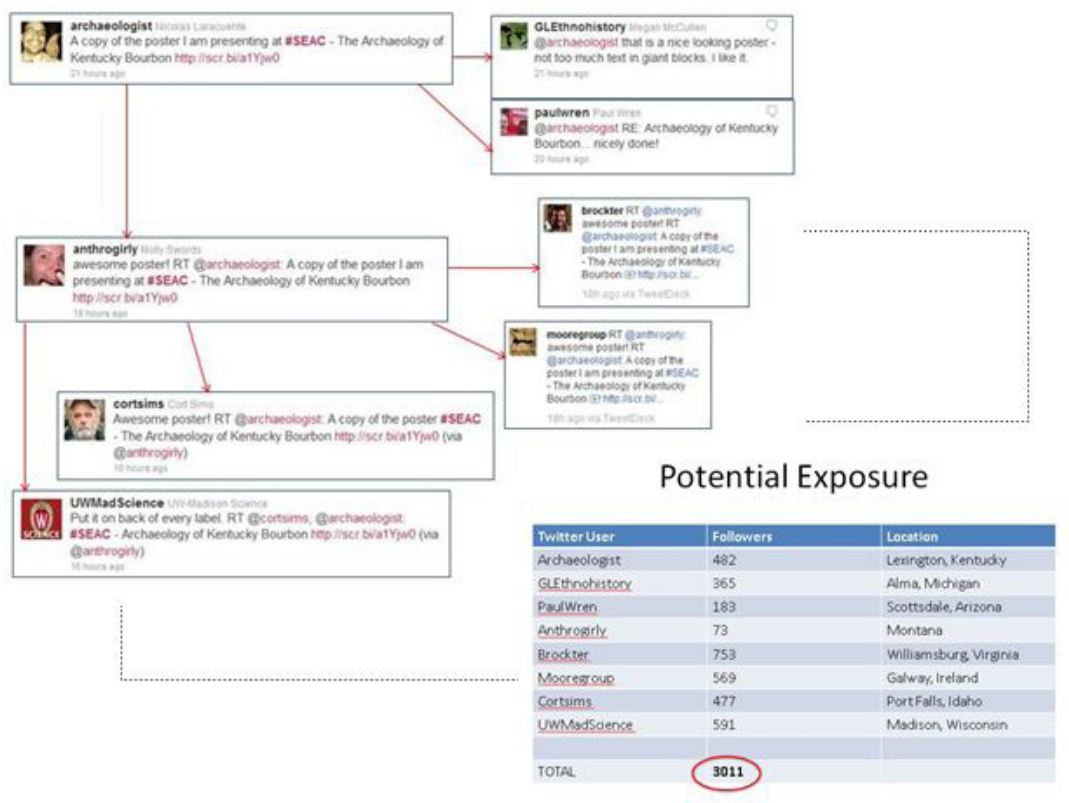


Figure 3. Tracking the amplification of the author’s conference poster.

By engaging a subset of Twitter users, his poster reached a group of communities that was diverse both in geographic location and interests. It also created an opportunity to speak with a Bluegrass native living in England. He learned that she was frustrated with the lack of Kentucky heritage taught in state schools and was concerned with preservation of the Bluegrass. She sent a copy of this poster to her family in Lexington. Despite the long route, his work reached members of Bluegrass communities that had not been accessed through traditional methods.

However, this exercise demonstrates only the potential impact of a single tweet. The impact was measured in hits on a webpage, not comprehension. Public archaeologists concerned with engaging audiences to achieve learning goals need to use Twitter as a hook to facilitate conversation. In the example above, the author achieved this level of engagement with only one of the many accounts that received the original tweet. Tailoring a social media approach to target a specific audience increases the comprehension of material, while excavations that occur in the same area provide an opportunity to increase the impact of social media.

The Campus Archaeology Program at Michigan State University engages the University community with a multifaceted social media program. The program's webpage (<http://campusarch.msu.edu/>) integrates a twitter feed, Youtube content, and the Campus Archaeology Program Blog, in addition to directing website visitors to Flickr and Facebook (Figure 4). From the website visitors learn that the program's mission is to protect their university's cultural resources during campus



Figure 4. The Campus Archaeology Program's webpage

construction (Campus Archaeology Program, accessed January 2012). Visitors also have information on the program's staff and access to research published as result of their excavations.

Twitter plays a role of redirecting people to related content on the Campus Archaeology Program's Facebook page or blog; they also "live tweet" their excavations. Tweets and photos posted from the field can attract people to excavations as they are happening (Figure 5). It can also facilitate the understanding of the program's work for people who cannot physically visit the excavations. The Campus Archaeology Program's use of social media is mainly a supplement to face-to-face community engagement. However, the information is also accessible by a global audience whose only reason for following the Campus Archaeology Program's Twitter account is an interest in archaeology. The tweets visible on their webpage in Figure 4 provide links to archaeologically related material in Missouri and Delaware. While these are not related to the Campus Archaeology Program's main mission, they provide content that engages people interested in archaeology in general.

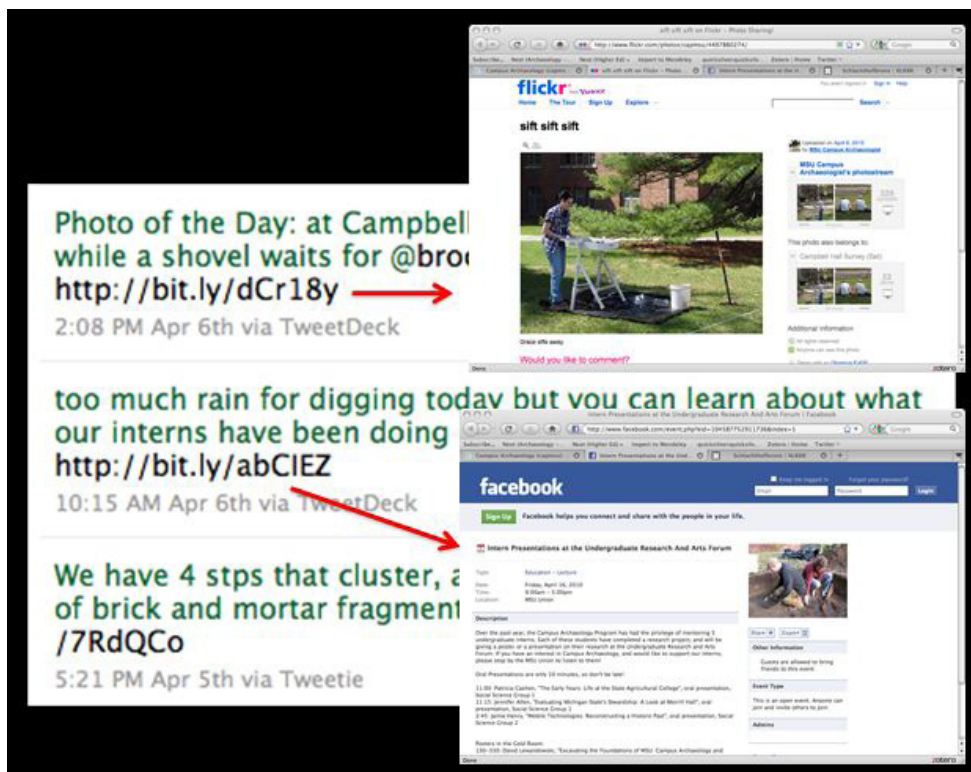


Figure 5.

The Campus Archaeology Program using Twitter for 'live tweeting' excavations.

The Florida Public Archaeology Network (FPAN) has taken the consistent engagement provided by The Campus Archaeology Program and amplified it to the state level. Their mission statement, "to promote and facilitate the conservation, study and public understanding of Florida's archaeological heritage through regional centers, each of which has its own website", illustrates the complexity generated from this amplification (Florida Public Archaeology Network, accessed January 2012). The FPAN web presence (<http://www.flpublicarchaeology.org/>) is split into eight geographic regions (Figure 6) that correspond with their physical offices. Each webpage displays that region's events and information about the cultural resources of that region. Half of the regions have blogs on their web page, but not all of the blogs are updated consistently. The twitter feed for each region is integrated into the bottom right of each of the regions' web pages.



Figure 6. The Florida Public Archaeology Network Webpage

To facilitate interaction with their local communities, the FPAN twitter accounts reflect their geographic region (i.e. @FPANSouthEast). Like the Campus Archaeology Program, FPAN uses these accounts to provide live tweets from wherever FPAN archaeologists are working. The Northeast region (@FPANNorthEast) encourages public interaction through "What is it Wednesdays" where a picture of an artifact is displayed on the blog for visitors to identify. A link to the blog is posted on Twitter, which is often retweeted by the other FPAN regional accounts. Twitter facilitates interaction between regions as events that may be of interest in other areas of Florida are publicized through various geographic regions (Figure 7).



Figure 7. *Using Twitter to Coordinate between the FPAN Regions*

Twitter can be used on an individual level as an organizing tool among public archaeologists, as demonstrated during the Day of Archaeology 2011. This project was inspired by a conversation on Twitter between two of the organizers, Lorna Richardson (PhD Student, Centre for Digital Humanities at University College London Department of Information Studies) and Matt Law (PhD Student, Cardiff University / C & N Hollinrake Ltd.), during the Day of Digital Humanities in March 2011. The team grew to seven organizers, three advisors and four sponsoring organizations. The premise was simple. Archaeologists, broadly defined as "everyone working or volunteering in any aspect of archaeology from anywhere in the world -- and even those who have defected", registered with the organizers and shared what they did on the Day of Archaeology, July 29th, 2011 (Day of Archaeology, accessed January 2012). Participants documented their day through photographs, video and blog posts that were proofed by the organizers and posted at <http://www.dayofarchaeology.com/>. By July 31st, the website was approaching 400 blog entries from across the world. Using Twitter allowed organizers to communicate efficiently on a global scale and the project results disseminated through Twitter and other social media outlets.

Individual use of Twitter varies and most of the time Twitter is not used in association with a project or institution. Personal notes or reflections on conference presentations has been an increasingly popular use of Twitter. Archaeology related issues can be rapidly shared by topic through the use of hashtags (i.e. #pubarch) that allow a twitter stream to be filtered removing anything that does not contain those keywords. The use of conference hashtags (i.e. #SHA2012) allows conversations about conference topics to occur in a backchannel during presentations or while people are traveling. Relationships that are established on Twitter can facilitate the spread of archaeology-related news, projects or job openings through archaeology social media networks.

Discussion – Incorporating Twitter into Archaeology

While there is no single right way to use Twitter, some approaches are better than others. The first step would be to develop a plan for engagement through social media. Public archaeologists that decide to implement Twitter into their projects need to realize that one-way communication will not result in success:

"Twitter isn't so much a broadcast medium as it is a discussion channel... the secret of social media is that it's not about you... It's about how you can add value to the communities that happen to include you"
(O'Reilly and Milstein 2009:101).

Just like the end user who identifies with several social media behaviors, archaeologists need to move among the six social media behaviors in order to maintain the interest of a diverse audience. To combat the information overflow present in a Twitter stream, they may want to repeat their own messages throughout the day. This will also engage a global audience who may be sleeping during the times public archaeologists typically use Twitter. Public archaeologists on Twitter will also have to be increasingly self-critical. For example, after building a community of followers interested in archaeology, beginning to tweet about a personal interest in dinosaurs would support the misconception that archaeologists study dinosaurs.

Approaching Twitter accounts as personal accounts versus individual accounts assists in determining the content that will be distributed through that account. The Campus Archaeology Program and the Florida Public Archaeology Network are examples of institutional accounts. Both institutions have distinct mission goals posted on their websites that guide the content relayed through their social media

presence. To avoid simply broadcasting material, an institutional account must be used in such a way that those conversations reflect the view of the institution instead of the opinions of the individual. It is also important to be clear whether an account represents an institution or an individual. This can be accomplished through the account's Twitter handle.

Accounts such as @brockter or @vcwestmont are essentially modifications of a user's name. Followers of these accounts would expect to see tweets about that individual's life and interests. Those tweets intersect with their identities as archaeologists as they post pictures from the field, the lab, or share drafts of conference presentations. Accounts such as @SAAorg or @SHA_org are institutional accounts, as denoted by the suffix "-org". In general, institutional accounts are usually associated with organizations or publications. As a result, the topics they cover may be more limited to certain themes or be subject to institutional guidelines. Institutions need to be aware that tweets through these accounts can be taken as an official position or commentary on a subject.

While Twitter is primarily used as a tool for immediate conversations, curation and organization of tweets is possible. Social media tools, such as Storify (www.storify.com), allow the preservation and organization of content disseminated through nearly anywhere on the web. A single tweet can be curated with context by including associated web materials within a "story" on Storify. These curated files can be used to assess social media approaches in order to tweak future projects. They can also be used to gather materials, presented in a variety of formats at different locations on the web, in a centralized location, providing a strong foundation for beginning, or continuing, an informed discussion about any subject.

By including Twitter as a part of the project, engagement can take place at anytime among people in any location. Publicizing Twitter accounts in a variety of ways can result in a diverse audience that remains engaged long after a traditional event would have ended. Perhaps the biggest hurdle to overcome is the idea of creating a single program that requires little maintenance. Communication through Twitter flows both ways, which means that both the educator and the audience are engaged in learning. Through assessment and modification, public archaeology programs should become dynamic constructs, capable of engaging a variety of social media behaviors, learning types and content to broaden their impact past traditional techniques.

Conclusions – Potential and Problems

Twitter may serve as a foundation for beginning public archaeology through social media. It serves as an easy entry point for archaeology experts that may not be accustomed to social media. Facebook, MySpace and similar sites can be time-intensive. There are many options for ways to interact with your friends and the accounts can be high maintenance. Twitter has three fundamental options: follow, not follow, and block (Morris 2010:22-23). The asymmetrical nature of Twitter gives a user the option to reply. A 140-character message can link people with photos and materials on any other site on the Internet.

By default, Twitter accounts are viewable by anyone with internet access. The very public nature of this social media platform means that any tweet posted to archaeology twitter accounts could spark learning opportunities for public archaeology. Individual accounts associated with archaeology students reflect the rigor of archaeology research and the challenges they face while balancing study, fieldwork and personal lives. Institutional accounts can reflect the effort of organizing a conference, link users to forums that summarize current controversies, or advertise events that are open to the public. Incorporating Twitter in all phases of a project allows interested members of the public to learn about all stages of the archaeological process, from fieldwork to publication.

A potential problem with people engaging with archaeology through Twitter is the way in which the interested public accesses these materials. After creating an account, a new Twitter user could search using the Twitter hashtags such as #archaeology, #artifacts, or #history. This would result in every tweet that included those hashtags, regardless of if the linked material is pseudo-archaeology, inaccurately reported archaeology, or other problematic material. Maintaining an active community of professional archaeologists, who actively engage with problematic materials and the people who access them, opens a dialogue that may not have otherwise occurred. However, the volume of material shared through Twitter precludes this community from addressing all problematic materials. Getting involved with Twitter, or supporting those who are already involved, will ensure that these much needed dialogues continue to occur.

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Archaeologists' Perceptions on Public Outreach and Education

Doug ROCKS-MACQUEEN
University of Edinburgh

Abstract

This paper presents the results of a survey of archaeologists' perceptions of public outreach and education, also known as public archaeology. The results obtained indicate that archaeologists' views on public archaeology are generally positive but with reservations. Those specific reservations being that public archaeology is not perceived as one of the most important aspects of archaeology. This paper ends with a discussion on exactly what this means for public outreach and education in archaeology.

Key words

Archaeologists, Public, Outreach, Education, Perceptions, Archaeology's Future, New Mexico

Introduction

This particular investigation developed out of a personal experience of the author. During the exploration of a topic for an undergraduate honours project at the University of New Mexico, a series of informal conversations about the topic of public archaeology (this paper also uses the phrase "public outreach and education" as a more detailed description of public archaeology) took place between the author and other archaeologists (e.g. professional Cultural Resource Management Specialists, classmates, professors, etc.). This resulted in several statements from those individuals indicating that public archaeology was not a high priority for archaeologists. Some of the individuals even stated that certain groups of archaeologists do not support public archaeology and were holding back the development of public outreach and education in archaeology. These informal conversations were in no way scientific or encompassing enough to make any sort of statements

about archaeologists' perceptions of public archaeology. Yet, these answers were intriguing enough to solicit further investigation, as part of an honours project, into whether archaeologists in general perceive public archaeology as a valuable component of archaeology or not, as some suggested.

Further research into this topic discovered that out of the many surveys of archaeologists (ARI 2005; Aitchison 1997; Aitchison and Edwards 2003; Aitchison and Edwards 2008; Ulm et al. 2005; Claassen 1994; Evans 1988; Lees 1991; Zimmer et al. 1995) only one survey had ever questioned archaeologists about their perceptions of public archaeology. This survey was the 1994 *Survey of Attitudes and Values in Archaeological Practice* (Zimmer et al. 1995), conducted by the program in Ethics and Values Studies of the National Science Foundation and the Centre for Archaeology in the Public Interest at Indiana University. The main purpose of this survey was not to look at public archaeology specifically but a series of ethical dilemmas faced by archaeologists, of which public archaeology formed a component.

In this survey, several questions dealt with public archaeology such as 'Archaeologists should spend at least 20% of their professional time on public outreach and education?' The results of this question were: 48% found it optional or unnecessary, 40% recommended spending this much time, 8% saw the 20% figure as obligatory, and several commented that 10% is a more reasonable time to spend on public outreach. Archaeologists were also asked about interacting with the local communities and 83% recommended or would require archaeologists to publicly announce a time when local people could come to see the site, fieldwork location, or finds. Furthermore, it was found that 70% of archaeologists recommended or would require that archaeologists arrange visits by local schools or tourism groups during excavation. While only 28% responded that arranging tours for schools and other groups is optional or unnecessary and 52% recommended that archaeologists should distribute teaching materials or comparative collections to educational institutions near a field site (Zimmer et al. 1995).

This survey gave answers on what archaeologists thought about specific public outreach and education events or situations, such as spending 20% of one's time on public outreach and education, but these answers do not explain what archaeologists think about public archaeology in general. The specificity of the questions asked makes it very hard to discern general perceptions on the value of public

archaeology. Saying that school groups should visit archaeological sites does not mean that an archaeologist believes public outreach and education is a valuable component of archaeology. The motivations of archaeologists, like any person, are complex and sometimes it is very difficult to discern opinions out of a particular set of actions.

A further problem seen with inferring results from this particular survey was the lack of comparison factors from which to gage public archaeology against. What happens if a choice had to be made between public outreach and education and paying for an additional day of fieldwork? A realistic situation as many projects face tight budget constraints. Do archaeologists feel public archaeology is more valuable than a day in the field? The answers to these questions cannot be inferred from the responses in the *Survey of Attitudes and Values in Archaeological Practice*. To truly understand how archaeologists perceive the value of public archaeology one has to place this value in the proper context to measure it.

These observations are in no way meant to be seen as a criticism of the *Survey of Attitudes and Values in Archaeological Practice*. That survey was not designed specifically to understand archaeologists' perceptions of public archaeology. This review is simply to point out that very little research has been conducted in determining archaeologists' perceptions of public archaeology. As such, with a clear deficiency in knowledge, a project was undertaken to survey archaeologists' perceptions of public archaeology.

Methods

To determine how archaeologists perceive public outreach and education this project used a web-based survey. A survey was chosen over ethnographic methods because it could cover a larger sample group and produce a better representation of archaeologists' opinions. A web survey was chosen because it had several advantages over a hardcopy mailed survey: 1) instructions and a link to the survey could be embedded in an email and sent to email lists and list servers allowing for an expedient distribution to the target population; 2) surveys not requiring physical presence eliminate costs, such as printing and mailing; 3) the electronic form made analysis and transfer to a Microsoft Excel spreadsheet easier, saving time; 4) privacy could be insured because at no point did the participants and the author come into contact while the participants were taking the survey. The web-based survey was created using the website SurveyMonkey.com.

Population

The population selected for this project were archaeologists residing or working in New Mexico. The primary reason for limiting the survey to this population was to control for biases. The author and his undergraduate honours advisers were familiar with all of the organizations in the state, guaranteeing no significant group was overlooked, thus eliminating the possibility of excluded group biases. This population also had been measured before, making it possible to check for any under or over representation of certain groups of archaeologists.

The estimated size of the study's population is 532 professional archaeologists. The population size of professional archaeologists is based on a survey conducted by Dr. Lynne Sebastian (2005). In addition to professional archaeologists there were 114 graduate students, and 159 undergraduate anthropology students based on the number of the American Anthropology Associations 2008 *AAA Guide*. An unknown number of those students were archaeology students. Considering that 25% of students who get their PhD in anthropology are archaeologists (Boites et al 2002) an estimate of the number of archaeology students could be put at 29 graduate students and 40 undergraduate students. This is only an estimate and should not be considered a hard number.

Distribution of the Survey to Population

After the survey was created and an html link to the survey was used in emails to distribute the survey. Four separate emails were created targeting university anthropology departments, archaeological consulting companies, government agencies, and the New Mexico Archaeological Council. The initial emails were sent out 5 March 2008 and reminders were sent out 19 March 2008 and 24 March 2008. The survey closed 26 March 2008. A total of 206 people participated in this survey, and 165 completed the entire survey (Completion rate was **80.1%**). Data was only used from the completed surveys. The rate of return for professional archaeologist was 141 out of 532 (**26.5%**). Student return was 24 out of an estimated 69 students for a response of **34.7%**. These response rates are comparable to the response rate on previous surveys of archaeologists (roughly 30% for Zeder 1997).

The Survey

The survey started by asking the question, "Are you a professional Archaeologist or student in the field of Archaeology?" to ensure only

the target audience, archaeologists, took the survey. If the participants answered “yes” to this question, they moved on to the next section. If they answered “no”, then they were taken to the end of the survey, skipping the questions, and were thanked for participating.

This was followed by a series of background questions to assess what sort of factors might influence archaeologists’ perceptions. As mentioned during the informal interview section of this project, some archaeologists suspected that different sections, based on job type, of archaeologists were against the use of public outreach and education in archaeology. Furthermore, observations made in other surveys, like *The American Archaeologists: A Profile*, found that age, gender, experience, level of education, age and job type, all effected archaeologists’ perceptions. As a result, these categories were used in this survey to determine any correlations with archaeologists’ perceptions on public outreach and education with demographic information and if this was an influencing factor in views.

Due to the sample size many of the categories were limited to small number of choices. For example, in past surveys archaeologists were grouped by 10-year age intervals but in this survey age ranges were broken down into four groupings that roughly correspond to student or professional levels: traditional student undergraduate (18-24) and graduate (25-34), traditional professional career (35-60) and close to or at retirement (61+).

These groups were kept to as few as possible to keep the statistical significance of the results. As seen in Table 1, when job groupings were broken down in specific job types the statistical significance of the results disappears as only one or two people hold each position.

Overall demographics of the survey group were as follows:

Gender	Percent	Count
Female	40.0%	66
Male	60.0%	99

Age:

	Percent	Count
18-24	4.2%	7
25-34	16.4%	27
35-60	66.1%	109
61+	13.3%	22

Education:

	Percent	Count
No College	0.6%	1
Some College	3.6%	6
BA/BS or equivalent	26.1%	43
MA or equivalent	42.4%	70
PhD or equivalent	27.3%	45

Job category:

	Percent	Count
Private Sector or Non-Profit	34.5%	57
Government agency (Federal, State, Tribal, or Local)	31.5%	52
Education (Academic Institution, Museum, School)	19.4%	32
Student	14.5%	24

Private Sector or Non-Profit

Field/Lab Technician	7.0%	4
Crew Chief	3.5%	2
Project/Site/Lab director	12.3%	7
Analyst	0.0%	0
Data Manger	1.8%	1
Principle Investigator	66.7%	38
Administrator	3.5%	2
Outreach and Education	5.3%	3

Education

Faculty or Instructor	56.3%	18
Academic Researcher	21.9%	7
Museum Staff or Curator	9.4%	3
Administrator	6.3%	2
Outreach and Education Coordinator or Specialist	6.3%	2

Archaeology experience, years:

	Percent	Count
0-4	18.2%	30
5-10	13.9%	23
11+	67.9%	112

Government agency

Contract Specialist	9.6%	5
Policy Manger	3.8%	2
Field Technician	5.8%	3
Compliance and Review	25.0%	13
Resources Manger	36.5%	19
Data Manger	7.7%	4
Interpreter or Outreach and Education Coordinator or Specialist	11.5%	6

Table 1. *Demographics of respondents to survey*

The demographic return for this survey had similar responses as national trends with more male than female archaeologists and the majority of archaeologists in government or private sector jobs (Zeder 1997). Principle investigators and mid-high level positions are heavily over-represented for the private sector (Table 2) but this is not a surprise. A large portion of private sector jobs are temporary and many archaeologists move from project to project and state to state. This makes it hard to contact these individuals as many are moving in and out of the state. Because of this bias in survey completion, results for the private sector should be interpreted as the views of those with higher positions and not a reflection of field technicians or similar positions.

Affiliation	Estimated NM Population	Responses	% of Response
Government	162	52	32.1%
Education	59	32	54.3%
Private Sector-Crew Chief and above	184	47	25.5%
Private Sector- techs, lab workers, etc.	107	4	3.7%

Table 2. *Estimated number of archaeologists by job sectors (Sebastian 2005) and respondents to survey*

The Results

While each and every demographic factor was examined against the responses for each question, only those results that are statically significant are presented here. Statistically significant refers to results, which after running a chi-square, have at least a 95 percent confidence interval or more.

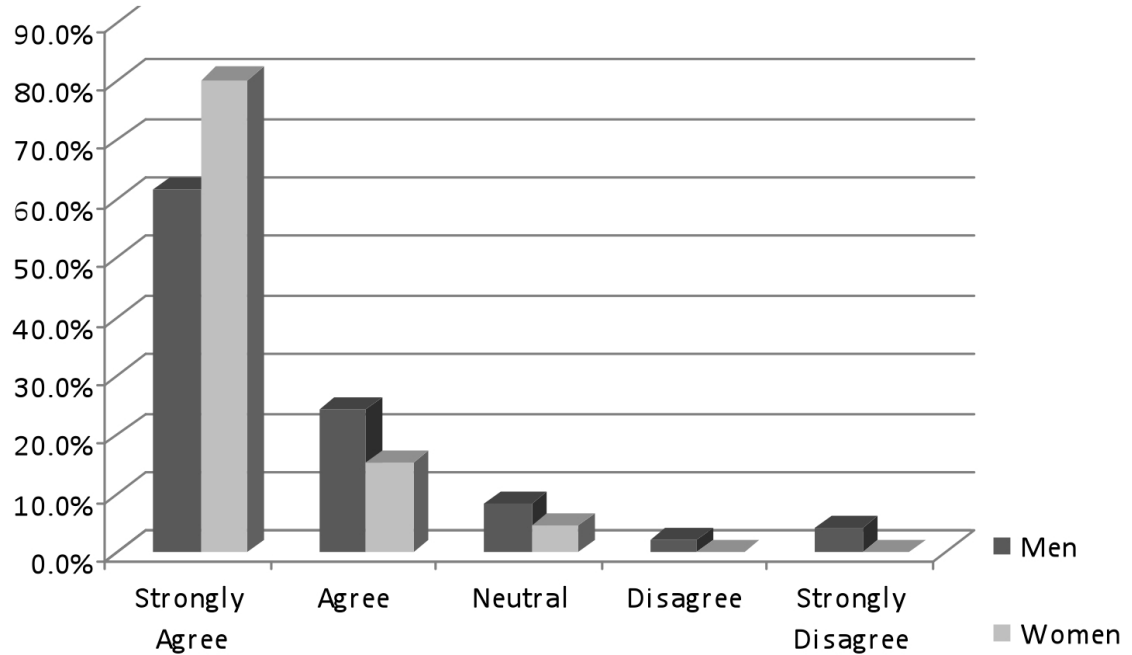
Question 1

After the participants filled in their demographic information they were presented with a series of questions. One of these questions was **“Public outreach and education is an IMPORTANT component of archaeological projects and research.”** The objective behind asking this question was to obtain a baseline of opinions. While it was suspected that the majority of archaeologists support public outreach and education, this question was essentially to establish that fact.

Answers	Response Percent	Response Count
Strongly Agree	69.1%	114
Agree	20.6%	34
Neutral	6.7%	11
Disagree	1.2%	2
Strongly Disagree	2.4%	4

Table 3 *Responses to Question 1*

The response showed that about 90% of archaeologists (Table 3) agree with this statement that public outreach and education was an important component. Only 3.6% of archaeologist disagreed with this statement. There were several clear demographic influences on the responses, one of which was between female and male archaeologists. Female archaeologists had a higher response to strongly agree 80.3% as compared to 63.5% for males (Figure 1). The results should be examined with caution as the significant differences between these groups came in the strongly agree/agree responses. If agree and strongly agree were to be combined these differences would disappear.



Response	Men	Women
Strongly Agree	61.6%	80.3%
Agree	24.2%	15.2%
Neutral	8.1%	4.5%
Disagree	2.0%	0.0%
Strongly Disagree	4.0%	0.0%

Figure 1. Graph of female and male archaeologists responses to Question 1

A total of six archaeologists disagreed with this statement (2 disagree, 4 strongly disagree); all were male and over the age of 35. Five were principle investigators in the private sector and one was a government archaeologist that worked in compliance and review. All had 11 or more years of field experience in archaeology. With these small numbers it is hard to determine if these demographics mean anything. 97.4% of all principle investigators have 11+ years of experience and are over the age of 35. 81.6% of the principle investigators are male. It appears demographics do not influence these results, all observed patterns result from the fact that the respondents were principle investigators in the private sector, and only a minority of private sector archaeologists do not see public archaeology as a valuable aspect of archaeology.

Question 2

After determining archaeologists' general feelings towards the abstract concept of public outreach and education, the next question looked at a more specific context; "**Do you AGREE with the Society for American Archaeology's principles of Archaeological Ethics regarding public outreach and education?**" The previous question had been very generic and provided no interpretation to define what exactly public outreach and education is or involves. This question was to gauge if the specification of the question could be influencing archaeologists' perceptions on public outreach and education. The participants were provided with this definition:

SAA Ethics Principle 4: Public Outreach and Education

"Archaeologists should reach out to, and participate in cooperative efforts with others interested in the archaeological record with the aim of improving the preservation, protection, and interpretation of the record. In particular, archaeologists should undertake to: 1) enlist public support for the stewardship of the archaeological record; 2) explain and promote the use of archaeological methods and techniques in understanding human behaviour and culture; and 3) communicate archaeological interpretations of the past. Many publics exist for archaeology including students and teachers; Native Americans and other ethnic, religious, and cultural groups who find in the archaeological record important aspects of their cultural heritage; lawmakers and government officials; reporters, journalists, and others involved in the media; and the general public. Archaeologists who are unable to

undertake public education and outreach directly should encourage and support the efforts of others in these activities.”

The response to this question was quite different than that for the above question. Many demographic categories see shifts in support when the support for public outreach and education is framed more specific than the general concept. Only 35.8% strongly agree with this statement as opposed to 69.1% of archaeologists for the previous question.

Answer Options	Response Percent	Response Count
Strongly Agree	35.2%	58
Agree	52.1%	86
Neutral	9.7%	16
Disagree	1.8%	3
Strongly Disagree	1.2%	2

Table 4. Response to Question 2

The 18-24 age group had a lower response to agree 28.6% and higher response to neutral 42.9%. The only large difference is in college students; they more strongly agree with the principles than any other group. Their response to strongly agree was 50% compared to 28.1% (Government), 31.4% (Education), and 38.2% (Private Sector/Non-profit) (Table 5). This disappears if strongly agree and agree are combined 87.5% (College Students) 90.2(Government), 90.6% (Education), and 85.5% (Private Sector/Non-profit).

Response	Private/Non-Profit	Government	Education	Student
Strongly Agree	35.2%	30.8%	28.1%	50.0%
Agree	52.1%	57.7%	62.5%	37.5%
Neutral	9.7%	11.5%	9.4%	12.5%
Disagree	1.8%	0.0%	0.0%	0.0%
Strongly Disagree	1.2%	0.0%	0.0%	0.0%

Table 5. Responses of job groups to Question 2

Disagreement

Five of the six archaeologists that disagree with the last question disagreed with this question. The lone dissenter was the government archaeologist who put neutral on this point. The five principle investigators all put disagree to varying extents. For the most part, those that disagreed with the first statement disagreed with this statement as well.

Question 3

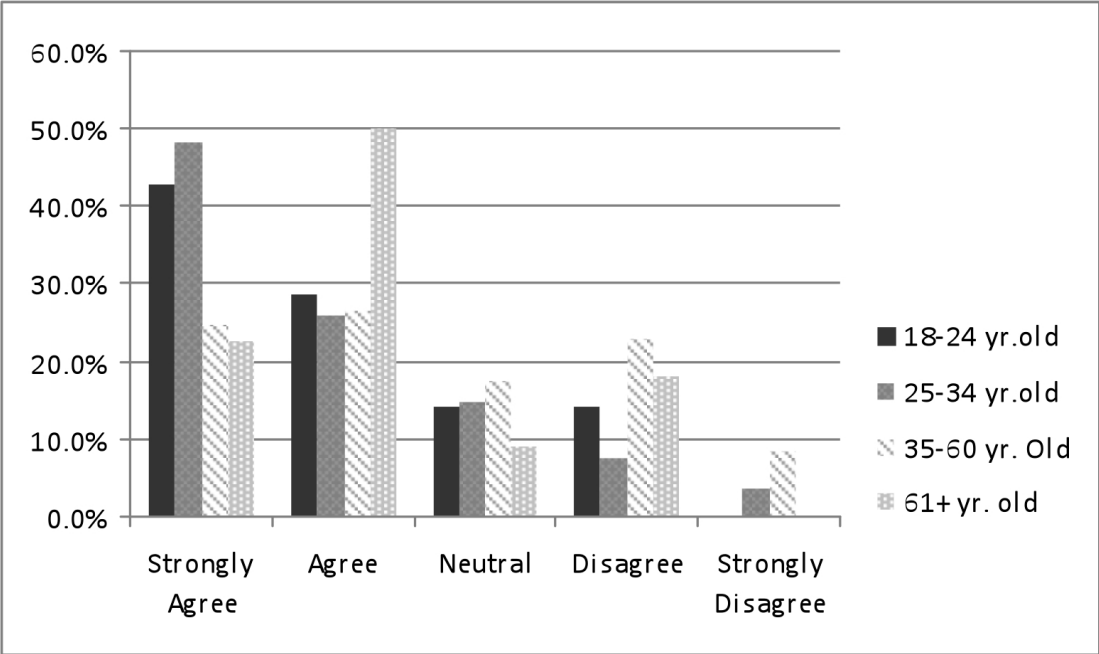
The next question was aimed at discerning archaeologists' perceptions when looking at a very specific instance. This is like previous questions asked in the other surveys. For this project the question asked was, **"ALL archaeological projects should attempt some sort of public outreach and education."**

It would appear that overall a majority of archaeologists either agree or strongly agree 59.2% with this statement. Yet, this statement also received the most disagreements of any statement in this survey (Table 6), making this the most contentious of the questions asked.

Responses	Percent	Count
Strongly Agree	29.1%	48
Agree	29.7%	49
Neutral	15.8%	26
Disagree	19.4%	32
Strongly Disagree	6.1%	10

Table 6. *responses to Question 3*

The younger age groups, 18-34 years old, had higher responses to strong agreement than the other age groups, 35+ (Figure 2). The 25-34 year-old age group had the highest rates of strong agreement, 48.1%. This group was followed by the 18-24 age group with 42.9%. The 61+ age group had the highest rate of agree with 50.0%. If strongly agree and agree were combined, 18-24, 25-34 and 61+ would have roughly equal numbers, 71.5%, 73.1% and 76.2%, but 35-60 would have only 50.0% of the respondents replying with some sort of agreement.



Responses	18-24	25-34	35-60	61+
Strongly Agree	42.9%	48.1%	24.8%	22.70%
Agree	28.6%	25.9%	26.6%	50.00%
Neutral	14.3%	14.8%	17.4%	9.10%
Disagree	14.3%	7.4%	22.9%	18.20%
Strongly Disagree	0.0%	3.7%	8.3%	0.0%

Figure 2. Graph of responses to Question 3 by age groups

Years of experience also had some differences in the results. Those archaeologists with 0-4 years of experience had the highest response (46.7%) to strongly agree and the lowest response to disagree (10%) and strongly disagree (0%), with those with 5-10 years of experience having the largest response for agree (43.5%). Archaeologists with 11+ years of experience followed the average.

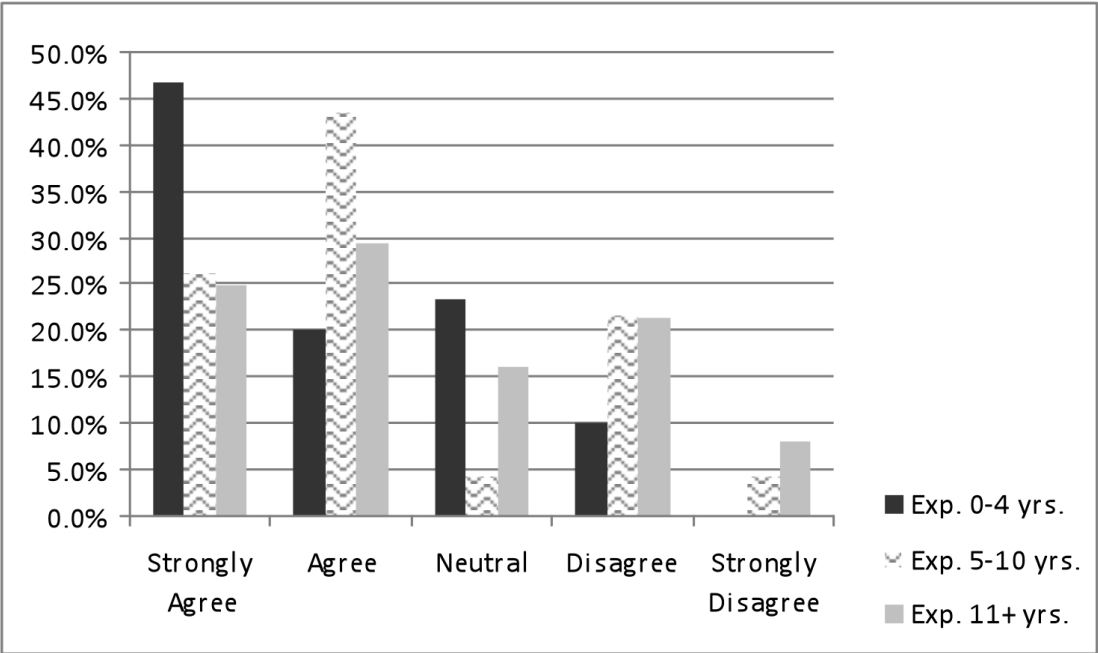


Figure 3. Graph of responses to Question 3 by years of experience

In the demographic of affiliation/employment there were two distinct groups in terms of agreement that all archaeology projects should attempt public outreach and education. Both students and education-based archaeologists had the highest support with 50% and 43.8% respectively (Figure 4). If both strongly agree and agree were combined for both students and education they would be about equal at 79.2% and 78.2% respectively. The other group with the least amount of support would be government and private sector/non-profit archaeologists. With private sector/non-profit archaeologists disagreeing the most, 19.4% (disagree) and 6.1% (strongly disagree).

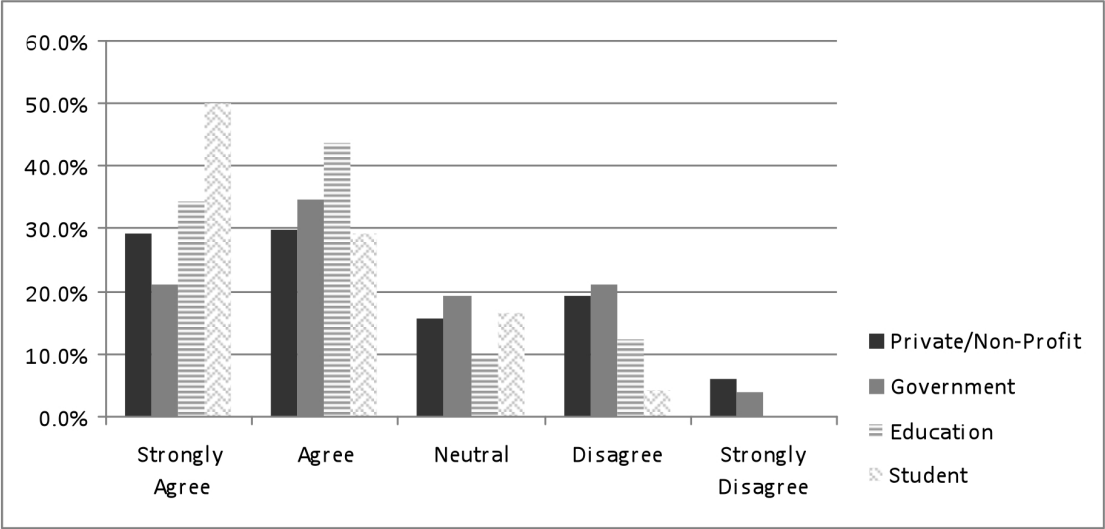


Figure 4. Responses to Question 3 by Job sectors

Disagreement

Of those who disagreed (n=42), most are over 35 years old (90.5%), have 11+ years of experience (78.6%), the majority are private sector (57.1%, 24 of which 19 are principle investigators).

Question 4

The next question was to determine, as discussed at the beginning of this paper, if archaeologists perceive public archaeology as a valuable aspect when compared against other aspects of archaeology. The question used to do this was, **"Please rank the following components of archaeological projects from 1 through 8 in order of importance with 1 being most important and 8 being least important. You can use the same ranking more than once."** The components that they were asked to rank were Proposal Writing, Compliance with the Law, Public Education and Outreach, Preservation/Conservation, Analysis, Excavation, Publishing Results, and Staying on Budget. The participants were allowed to rank components more than once to account for those opinions in which some of the aspects might be equal in importance.

The ranking of these components placed Compliance with the Law first, with the most number 1 rankings (67.3%), followed by Publishing Results (56.2%), Preservation/Conservation (48.8%),

Analysis (43.2%), Excavation (22.8%), Proposal Writing (24.1%) and then Public Education and Outreach (19.1%), which just beats out staying on budget (16.7%). If both number two and one rankings were combined, then Public outreach and education would be able to beat out Proposal Writing 48.7% to 45.1% as well. There is actually very little change in how public outreach and education is ranked through the different demographic categories. It would seem that when public outreach and education is ranked against other components of archaeology, it does not fair well with all archaeologists regardless of demographics.

Answer Options	1	2	3	4	5	6	7	8
Compliance with the Law	111	15	10	7	4	4	4	10
Publishing Results	93	20	11	14	8	1	6	12
Preservation/Conservation	80	41	11	9	5	3	7	9
Analysis	71	41	17	5	7	6	8	10
Proposal Writing	40	34	29	16	9	15	12	10
Excavation	39	31	28	25	8	15	5	14
Public Education and Outreach	33	48	25	21	7	12	8	11
Staying on Budget	28	42	23	23	14	8	8	19

Table 7. Responses to Question 4

Question 5

The last question examined in this paper was, “**As an archaeologist, do you actively engage in public outreach and education? Please check only one.**” The results of this question were that 87% of archaeologists and 87.5% of students are or will be engaging in public outreach and education. It would appear that the vast majority of archaeologists engage in public outreach and education and an equal number of students plan on engaging.

Response	Percent	Count
As a professional archaeologist, I engage in outreach and education.	86.4%	121
As a professional archaeologist, I do not engage in public outreach and education.	13.6%	19
I am currently a student and plan on engaging in public outreach and education when I become a professional archaeologist.	88%	22
I am currently a student and do not plan on engaging in public outreach and education when I become a professional archaeologist.	12%	3

Table 8. Responses to Question 5

The only significant demographic influence on this question was that archaeologists with only 0-4 years of experience have the least involvement in public outreach and education at 57.1%. Of the 19 archaeologists who do not engage with the public the majority are in the private sector (11) of which seven are principle investigators. There was no direct link with archaeologists' responses to this question and the other questions. Even some of those archaeologists who disagreed with the first few questions undertake public outreach and education.

Additional Questions

Additional questions were asked in the survey about knowledge of public outreach and education laws and organizations. These questions were attached as independent research questions to take advantage of the fact that a survey was going to be distributed to archaeologists. Instead of creating a second questionnaire at a later date and trying to elicit responses, it was more economical and practical to add these questions. The only reason they are included in this paper is because, as will be shown in the discussion section, these questions form a key component in interpreting the results of the questions above and strategizing a way forward for the future of public archaeology.

The first of these additional questions asked was, **"Which of the following are you aware of?"** The response to this question was:

Public Archaeology Organization or Concept	Response %	Response Count
The Society for American Archaeology Eight Principles of Archaeological Ethics	79.6%	117
The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation	85.7%	126
The Society for American Archaeology Public Education Committee	57.8%	85
The Society for American Archaeology Public Archaeology Interest Group	53.7%	79

Table 9. Responses to additional question 1

Participants were also asked two questions in regards to their awareness of public outreach and education requirements as part of cultural heritage laws.

- **“There are STATE laws in the U.S. that require archaeologists to engage in outreach and education.”**
- **“There are FEDERAL laws in the U.S. that require archaeologists to engage in outreach and education.”**

The respective responses for each were:

State Laws	Response %	Count
True	40.0%	66
False	60.0%	99

Federal Laws	Response %	Count
True	35.2%	58
False	64.8%	107

Tables 10 and 11. Responses to additional questions 2 & 3

These responses were overwhelmingly false but in reality the opposite is true. The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, which 85% of the participants are aware of, states that archaeological projects “must be accessible to a broad range of users including appropriate agencies, the

professional community and the general public" (USDA Forest Service 2007). Similarly, *New Mexico's Administrative Code 4.10.15.21. & 4.10.16.16.* requires "short popular summary suitable for distribution in a newspaper, newsletter or magazine. The purpose of the report is to provide information to the interested general public about the state's heritage and contributions from on-going research and studies on state land." for: positive surveys of 160 acres or more; surveys that identify 10 or more sites; whenever the cultural resources of importance or of general interest are identified; any excavation except for test excavations, which are optional (The Commission of Public Records & Administrative Law Division 2008).

The last questions asked were about including public outreach and education in a university curriculum.

"Public education and outreach should be an integral component in UNDERGRADUATE training in archaeology."		
	Response %	Response Count
Strongly Agree	33.3%	54
Agree	41.4%	67
Neutral	17.9%	29
Disagree	3.1%	5
Strongly Disagree	4.3%	7

"Public education and outreach should be an integral component in GRADUATE training in archaeology."		
Strongly Agree	56.8%	92
Agree	32.7%	53
Neutral	5.6%	9
Disagree	0.6%	1
Strongly Disagree	4.3%	7

Tables 12 and 13. Responses to additional questions 4 & 5

Discussion

The results of this survey would indicate that there is a general positive perception of public outreach, as seen in the responses to question one. However, the depth of this positive view does not continue to be felt beyond the abstract concept of public archaeology. When public archaeology is defined, such as in the case of the SAA's principle of ethics, the positive attitudes originally observed shift downwards as seen in question two. Furthermore, the responses to question three show that public archaeology is not considered a universally valued component of archaeology. This point is further illustrated by the responses in question four with public archaeology receiving one of the lowest rankings, even with the option to rank all aspects as equal. There seems to be a lack of support for public archaeology other than the general idea that it is a good thing.

An argument could be made that the difference seen in the responses between questions one and two, is from agree to strongly agree and there is no measurement of exactly what that means to each archaeologist. It could be argued that agree and strongly agree is a matter of semantics and does not result in any difference in how archaeologists view public archaeology. Moreover, even though many archaeologists did not agree that all projects should include a public outreach and educational component, the majority did. Finally, it could be said that most archaeologists already believe that they do, and that they will do, public outreach and education; all valid observations that would point to a brighter picture than the one painted above.

However, for all these positives it is hard to ignore the sliding scale of enthusiasm for public archaeology as it moves from an abstract thought to a more detailed plan of action. It is impossible to ignore that fact, that when compared to other aspects of archaeology it performs little better than staying on budget as a point of importance. Which raises the question, what should be done about this? As this article is published in a public archaeology journal, it would be safe to assume the many of the readers would agree that something needs to be done to raise views of the importance of public archaeology within the wider discipline.

The results of the secondary questions asked in the survey, provide a guide for possible routes forward. As seen in the questions about cultural heritage laws and public outreach and education, there is very little understanding of whether or not archaeologists should be undertaking public archaeology as a component of cultural resource

management. This probably means that no one is enforcing these requirements, especially considering how many archaeologists involved in compliance answered incorrectly to these questions. It might be as simple as educating archaeologists about the laws that exist. Project requirements usually encourage people to value those aspects higher, if not to at least ensure payment.

One has to be careful so as to not encourage blowback from such an initiative. There are many examples of people reacting badly to be told what to do. Especially, if what they are told to do has not been consistently enforced. It would be best to approach such a topic with a light touch. To accomplish this light touch, a possible "Did You Know" campaign could be conducted, pointing out that archaeologists should be doing public outreach and education but not forcing them. Education as opposed to enforcement would be the preferred route.

Another possible route to encourage a greater value of public archaeology might be the targeting of archaeology students or new archaeologists. There appears to be demographic trending with newer archaeologists more likely to strongly agree with positive public archaeology statements than other archaeologists. The term 'newer' is used because it represents those archaeologists that are new to archaeology, regardless of age. While the traditional view of new to the field archaeologists is young students 18-22, with little archaeological experience and by default all of these demographics (young, inexperienced, and students) could be lumped together, this is not the case. There are many students outside the traditional age range and some students that have lots of experience. A comparison of these variables found that there was very little overlap and the common factor was that these people were new to archaeology. That is, young or old, they were just starting in archaeology. The newest archaeologists are the ones that seem the most enthused about public archaeology.

If this group is already predisposed to carry higher opinions of public archaeology and its importance, then it should be easier to solidify these views or raise them. The results to the questions about including public outreach and education in universities' curricula are encouraging and could serve as a useful tool in this regard. Clearly, there is a positive support from archaeologists for such a proposal, though it is stronger for inclusion in a graduate than an undergraduate curriculum. Still these numbers can serve as great evidence when approaching academic departments to create or include classes,

courses, or majors in public archaeology. These results could serve as the qualitative evidence needed to convince any sort of curriculum board. If the teaching of public archaeology takes hold in pedagogy then there is a chance that this can greatly influence archaeologists' opinions, as many are formed in the formative years of one's career.

Concluding Remarks

In essence, the result of this survey has shown both positive and negative views when it comes to archaeologists' perceptions on public archaeology. While the positive views have been encouraging, the negative ones show how much work still needs to be undertaken to encourage public outreach and education among archaeologists. To that end, this paper has put forth several proposals for improvement based on the data received. Whether these proposals move forward or not still remains to be seen. Yet, there is at least a route forward in this regard.

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No news is better than evil news. Clearing up the way to face Alternative Archaeologies

Jaime ALMANSA SÁNCHEZ
JAS Arqueología S.L.U.

Abstract

While Archaeology started to take form as a professional discipline, Alternative Archaeologies grew in several ways. As the years went by, the image of Archaeology started being corrupted by misconceptions and a lot of imagination, and those professionals that were claiming to be scientists forgot one of their first responsibilities; the public. This lack of interest is one of the reasons why today, a vast majority of society believes in many clichés of the past that alternative archaeologists have used to build a fictitious History that is not innocent at all. From UFOs and the mysteries of great civilizations to the political interpretation of the past, the dangers of Alternative Archaeologies are clear and under our responsibility. This paper analyzes this situation in order to propose a strategy that may make us the main characters of the popular imagery in the mid-term. Since confrontation and communication do not seem to be effective approaches, we need a change in the paradigm based on Public Archaeology and the increase of our presence in everyday life.

Key words

Alternative Archaeology, Public Archaeology, Popular Culture, Public Action, Engagement

Introduction: The nature of Alternative Archaeology

Why does Alternative Archaeology exist? This is probably the first question we need to ask ourselves before continuing. To that end, defining Alternative Archaeology is essential. Tim Schadla-Hall defines it as “*anything that disagrees with the generally accepted facts that archaeologists use to explain and reconstruct the past*” (Schadla-Hall 2004: 256). Introducing a definition of Archaeology does not help at all. From the commonly accepted definitions to the latest ones like Gamble’s that describes it as “*whatever you want it to become*” (Gamble 2008: 3), there is a range of terms, agrees and disagrees

in which the border of the generally accepted facts is not very clear. Moreover, we all know there is not a single archaeological truth and discussion is the best way to create knowledge. So the answer to the initial question is very simple; Alternative Archaeology exists because there is not 'an Archaeology', and things that we assume today as true become 'alternative' tomorrow, or a common figure (Eller 2003). The public, that cannot easily access 'traditional' Archaeology, feel free to imagine and use 'their' Archaeology as a way to enjoy and participate in something they value.

Nevertheless, we cannot talk about Alternative Archaeology as one. Academia dictates the rules of what Archaeology is and is not, and everything else represents a huge amount of different situations and ideas that persist and people normally know. In this paper, I am going to differentiate two big groups that are strongly interconnected; on the one hand, we have this Archaeology directly related to political and identity matters. Issues like Nationalism have brought out a kind of Alternative Archaeology that can become dangerous for social and political stability. On the other hand, there is another group of 'researchers' worried about the unknown, the big mysteries of humanity, aliens, adventure, etc. They use Archaeology or 'archaeological facts' to prove the existence of things or situations that never happened. From the Bible to Atlantis, or the image of the sexy and brave archaeologist (in a way true), and although some of these theories can also be used for political reasons, the main damage of most of them is for Archaeology and archaeologists. They have a huge impact across the Media and popular culture, and they are the ones I will refer to in this paper. But where do they come from?

Some alternative views appear with a reason. Sometimes, it is a political one. Others, it is just a matter of money. And as I pointed out before, some of the views are just the results of the progress in the knowledge of our past. But there is an extravagance and an inherited curiosity for the unknown in humanity that make us look for something else. Scientific explanations are not enough and many people need a conspiracy or a mystery to believe in. An interesting research on this topic has been recently conducted by the University of Kent (Wood, Douglas and Sutton 2012), proving the absurdity of most of these beliefs. There are hundreds of alternative archaeologies, and the origin of most of them is very difficult to explain, but there is a common point; they do not recognize the 'official' point of view, and they are very successful.

The impact of Alternative Archaeology in popular culture

The debate about the Public and Archaeology is open and rich. If we look at some recent works about Archaeology in Popular Culture (Almansa 2006; Holtorf 2007; Merriman 1991; Pokotylo and Guppy 1999; Ramos and Duggane 2000) we can see how the mostly widespread concepts about archaeology and archaeologists come from the media and other leisure activities, and are related to alternative conceptions of Archaeology. Why? Basically, because we are boring (or we are just not there) while they are hot.

Between the assumed 'real image' of the archaeologist and figures like Harrison Ford or Angelina Jolie, we have nothing to do. People love alternative archaeology (that they think is real) because it is attractive and they can watch it on TV. Anyway, it is strange how in countries like England, where they have had real and interesting archaeology on TV, alternative archaeology is still popular. So, where is the problem?

Now that we are starting to be worried about the Public, we are doing the same mistake again. We forget Society. Society is very complex and follows very complex rules. For example, I would like to refer to a study conducted in England about the cultural habits of English people according to the newspaper they read. It dates back to 1990 but represents contemporary society accurately. The general tendencies have not changed with the new Century.

	Archaeological Sites	Monuments	Museums
Independent	20,4	45	53,4
Guardian	19,2	43,4	56,5
Times	13,9	43,4	51,5
Express	6,5	27,8	30,1
Sun	3,1	14,9	19,6

Table 1. *Percentage of people visiting different cultural attractions in the UK according to the newspaper they read (Stone and MacKenzie 1990).*

After this, we can argue that one of the determining factors is culture (and education). But we are to blame too. Is Archaeology for an elite? I would answer yes, because of the way it currently works in most of the world, and this is something we must be concerned about. Public Archaeology initiatives are useful, but we cannot expect a change in the public conception of archaeology in the short term, and let alone when alternative archaeology is so strongly represented in the Media.

What kind of Archaeology do people believe in?

The main source of information about archaeology (for 'outsiders') is Mass Media, mainly TV and the Internet. That is why the first thing we must do to approach the problem is to analyze them.

There are already some works on this topic (Holtorf 2007; IAPH 2007; Schablitsky 2007) and the quicker conclusion we can draw is that the image of archaeology we can get from Mass Media is confusing and usually wrong. The most popular topics in movies, news and web pages, are related to mystery, adventure, treasures and the unknown. Indiana Jones and Lara Croft might be the most famous 'archaeologists' and they are representatives of that exact image worldwide. But in almost every country we also find other representatives of alternative archaeology with an incredible success. Sometimes they are established as researchers of the unknown, and others they are taking advantage of special situations or events, but they always look for similar stuff, such as Nation, Aliens, God, etc.

Their success in the Media results in a huge amount of supporters and money to conduct their 'investigations'. For example, J. J. Benítez, one of the most famous Spanish alternatives, has sold more than 8 million books of his saga *Caballo de Troya*. After that, public TV invested several million Euros to make a 13-chapter documentary about the mysteries of the past, from Nazca to Cristobal Colón. Another example in Spain is Iker Jimenez. He conducts a radio programme, in one of the most-listened-to radio stations in Spain (Cadena SER), called *Milenio 3*. A few years ago, coinciding with the beginning of a new TV channel (Cuatro), he started the TV show *Cuarto Milenio*, broadcasted in primetime on Sunday nights until today, where he shows a different perspective from J.J. Benítez, maybe better. He only shows the mysteries, myths and tales from the past, leaving the interpretation to his guests in the set, although most of the time supporting the alternative one. While this happens, Spanish archaeologists continue doing their job. Their appearance in this or other TV shows is minimum

and usually overshadowed by conspicuous comments and conclusions from the other guests. New TV shows like *Sota Terra* (in Catalan TV3) or *Arqueomanía* (in National TV La2) are the counterpoint, but are still showing a distorted image of archaeology.

Is Archaeology a boring subject nobody is concerned about? The papers I cited at the beginning of this chapter do not lead us to that conclusion. Normally, when asked about the interest of Archaeology or its value, a large percentage of society finds it very positive. Why do they follow Alternative Archaeology then? Is it maybe because they think they are being asked about that? We can answer this question in two ways; optimistic and pessimistic.

If we are optimistic, we can believe that people really know what Archaeology is, really like and enjoy it, but do not have it in their daily lives, so they cannot follow it. That explanation would be perfect. We would just need a little bit more of public presence to succeed. And looking at daily-life archaeology (tourism posters from countries like Greece, Peru or Syria) it seems quite possible.



Figure 1. Visit Egypt from a bus stop in Madrid (Photo by author)

If we are pessimistic, we can assume people are thinking about Indiana Jones or aliens in Egypt. In the survey I conducted in Spain (Almansa 2006: 10-12), a 98.6% of the interviewees responded that Archaeology was a very valuable discipline (sometimes with a lot of energy), while being benevolent, only a 53% knew what Archaeology was. How can you value something you do not know? The last survey of cultural habits in Spain (MCU 2011), shows around a 30% interested in archaeology, but less than half of them actually visiting archaeological sites. What do they think archaeology is? That's a question to ask.

England is a characteristic example of how things are really complex. They have Archaeology on TV almost since TV started, with figures like Mortimer Wheeler (Moshenska and Schadla-Hall 2011), but alternative archaeology is powerful. Why? Obviously I do not have the answer, but something is failing when we cannot reach the public even with TV. Is Archaeology less interesting than aliens? Maybe we make Archaeology boring for the Public.

When I first saw Sir Mortimer Wheeler on TV (recently in a recording), I immediately remembered the sketch of the Monty Python's sketch in *The Flying Circus*. Time Team has been really successful, and *The Big Dig* is another example. On the other hand, authors like Hancock have become a social phenomenon writing about the mysteries of the past.

It is difficult to understand how this long course in TV Archaeology (Jordan 1981; Kulik 2006) has had no interference in the final image of Archaeology. Or did it? We just need to return to the previous idea of the complexity of society. There is a need to analyze the real conception that English society has of archaeology and, after that, we will be able to compare it with other initiatives and reach a conclusion. Anyway, there will always be an alternative conception of archaeology.

If we go back to the origins of archaeological mythologies, an important part of them come directly from the origins of Archaeology itself. Treasures were in a way usual when the first excavations took place. Some of the most important sites (mainly tombs and cities) were emptied before any modern methodology was improved. No research, no documentation, no context; just pots, jewellery, weapons, statues, etc. At the same time, the first humans were being discovered and from all these events and a bit of History, literature created an image of Archaeology that still persists today in today's society.

One example directly related to alternative archaeologies is Howard Phillips Lovecraft (Frigoli 2010). In his tales he assimilated the

latest archaeological events, giving them a mythical or even magical background that sets the basis for ideas like the extraterrestrial 'touch' in the figure of Cthulhu. Then, the idea that primitive humans were not able to build or use what was ascribed to them did the rest. Over the years, new authors that did not necessarily follow him, delved into these topics, enforced by "Ooparts" (those objects supposed to be too advanced for their period) and other stories.

To summarize, we have in the scene; Archaeology and an image of Archaeology. Although for many people these two are the same, normally 'the image' is distorted. By what? Treasures, aliens, myths, adventures, and the legacy of the nineteenth century. Why? A mixture of Mass Media with alternative and apathetic archaeologists. What can we do about it?

"No news is better than evil news." What can we do about Alternative Archaeology?

The quote above has been attributed to King James I. Although it is also said that there is no such thing as bad publicity, the situation here is different. Alternative Archaeology does not in any way generate a positive publicity and sometimes it is even dangerous for 'official' Archaeology (as alternatives like to call it) and Society.

There have been many attempts to rebut as well as to accommodate alternative archaeology (Schadla-Hall 2004: 264-268). The results have not been very positive in none of the cases. Rebuttal results in more power for alternative archaeologists (they become 'martyrs'), while accommodation recognizes them as another stream and legitimizes their situation, thus also empowering them.

The New York Times has published an article titled *Your Brain Lies to You* (Wang and Aamodt 2008), in which the authors talked about something called "*source amnesia*". According to them, when we (in this case, archaeologists) try to rebut an alternative theory, we use to explain and analyze it. This is a way to promote it, as the fantastic theories of pseudoscience are usually 'interesting' enough to remain in our brains, while the refutation is most of the times forgotten. That means that each time we try to 'attack' alternative archaeology we are in reality reinforcing it, spreading their message, and creating a negative image of the archaeologist as a 'crying child'.

What can we do after this panorama?

Over the past few years, I have tried to engage in dialogue with several people defending these ideas. So far, I can be proud of being able to help 'converting' one person after hours of reasoning with the inestimable help of a friend. This person (see Points of You in this volume) wrote for a well-known Internet publication (*suite101*) as head of Archaeology for Spain. He had a predominant position of authority to write and be believed by non-professionals. Today, his articles in other media are an example of well-documented views of the past, renouncing Alternative Archaeology.

Before him, I spent dozens of hours on Facebook groups and blogs, opening discussions about various incoherent theories of the past, and mainly, alien intervention in it [due to Facebook changes in the past couple of years and the fact that I was blocked from most of the groups, I cannot provide valid URLs, but you are free to write 'archaeology' in the search engine and surf]. I managed to identify three groups of people. First, those that really believed in their theories and had developed a strong archaeological basis and a missing link (the aliens) that was impossible to refute or prove. They usually follow the path of Zecharia Sitchin and similar authors, as well as the story of the *Annunaki*, which is probably the most expanded one, with references in popular culture from comics (Marvel's *Silver Surfer*) to TV series (mainly space-related ones, like *Stargate*, *Smallville*, *Star Trek*, *Babylon 5* or *Battlestar Galactica*, although they are not directly mentioned). Second, those that followed these theories with no basis but with a strong belief that made them argue with a discourse full of misconceptions, contradictions and insults. They do not really know what they believe in, but have a radical position against Archaeology or anyone who tries to defend 'traditional' conceptions of the World. And third, those that directly are in a different perception of reality (religious) that makes them live in a kind of 'parallel universe' where our premises cannot be used. They are visionaries that really believe they come from other planets or have direct contact with a god. It is impossible to have any logical discussion with them, as it happens at totally different levels; on the one side, science, logic and tangible premises (which the other two groups also use or try to use), and on the other side, what could be defined as a spiritual and personal belief, such as New Age's Indigo children coming from other planets.

Normally, any direct discussion ends up with DNA issues, theoretical physics and religion, which makes it impossible to continue giving coherent arguments for the starting point topics. However,

included in the first group, there are some 'original' alternatives that propose their own tangible discoveries. Some of them are inoffensive for archaeology, but others have been able to create a real problem. This is the case, for example, of the Bosnian Pyramids (see Forum 2 in this volume). Semir Osmanagic started a campaign in 2005 that is still spending millions of dollars of investment in the area, so that it can be declared World Heritage. He is not an archaeologist, but has become the most important Bosnian name in the field (see Forum 2 in this volume).

Fighting effectively these as well as other cases would require the exclusive dedication of dozens of archaeologists all around the world. And even with that, success would not be granted. The presence and power of Alternative Archaeologies are so prominent that it is really difficult to transform public conceptions and misconceptions of the past.

There is not any magical and fast solution. We cannot go and change people's minds in a second. The idea of a 'mental ray' that transforms the social conception of archaeology and converts people into fanatic Archaeology-consumers willing to give us the control of the world (like in cartoons) sounds amazing (or threatening), but is still impossible. Our only 'weapon' to fight Alternative Archaeology is Archaeology, but at least we can choose the tactics of this 'war'.

My proposal is based on engagement (in line with Holtorf 2005b). Dialogue is the best of the available options. It is true that accommodating alternative archaeology legitimizes their positions, but we need to do it that in order to rebut their visions of the past (or archaeology). An example is Neopaganism (Blain and Wallis 2004, 2006; Carpenter 1998). Neopaganists are perhaps the most popular and expanding alternatives we can find outside the political frame. This group has expanded internationally in close relation with the Celts. Moreover, it has appropriated several icons, such as Stonehenge that have no real archaeological relation to the period they think they belong to. They use Neolithic sites for a Bronze/Iron Age context with pre-Medieval characters, today. For years, they have been around with an incredible impact on society and popular culture, especially in the United Kingdom (Hutton 2007), but also in the whole Atlantic frame (see an interesting approach in the Spanish region of Asturias in Marín 2004, 2005). Others can be found in a fantastic book edited by Garrett Fagan that I did not have the opportunity to quote yet, but is of great value to understand these issues (Fagan 2006).

"*From Stonehenge to Las Vegas*", the archaeo-appeal Holtorf talks about (Holtorf 2005a: 150-160) has lots to do with this increase of the popularly accepted ideas about archaeology and the past. It shows the popular interest in Archaeology and the attractiveness of our work, but an important part of it does not come from Archaeology. Alternative Archaeologies, from popular culture, have spread out an image of Archaeology and archaeologists that has been successful. The alternative-appeal is sure, and we just need to look at the numbers to realize its power, but where is the original archaeo-appeal?

Besides this engagement with alternative groups, the main 'weapon' we have to fight Alternative Archaeology is Archaeology itself. But what failed then in the English experience? Perhaps nothing. One of the factors we have to take into account is the number of people who now know more about Archaeology.

We will probably be incapable of changing the distorted image that Alternative Archaeology offers, but we can promote our work and our results in a wider (a wider group of people/public) and in a more public way. If we still believe in phantoms, legends or God, there will always be room for an alternative interpretation of the past. We cannot change people's beliefs, but at least we can offer a different image of our work. In essence, we shall not impose, but propose.

Little by little, by promoting dialogue combined with archaeological action, we will be able to get more people to join the 'Club of the Real Archaeology'. Alternatives will always be there, but there will come a time when a vast majority of society will recognize and value Archaeology as it really is. It might continue to be an issue for generations, but this is the only safe and sustainable strategy. It could be named 'the silent killer' strategy.

However, our battle does not end there and, at the same time, we should deal with other misconceptions of the past (and the present) that 'official' archaeology has traditionally reinforced, such as those related to gender, evolution/development or class.

We can prevail over Alternative Archaeology. All we need is humility and commitment. Will we be able to do it?

Chapter 1.

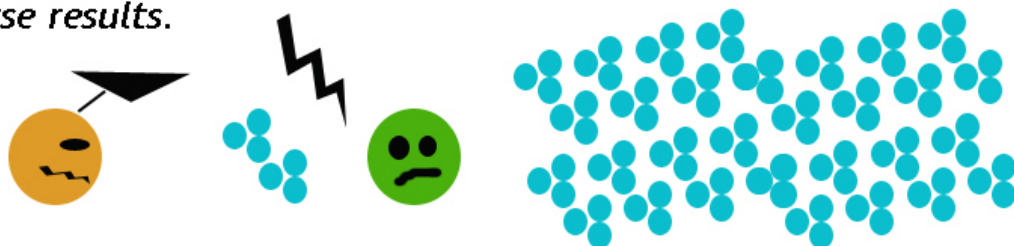
Archaeology does not face the public.

Alternative Archaeologies get the support.



Chapter 2.

A frontal attack against Alternative Archaeology will have worse results.



Chapter 3.

Facing the public properly, we will little by little gain them.



Chapter 4.

And one day... people will follow us.

And Alternative Archaeologies will be merely anecdotes



Figure 2. 'The silent killer' strategy, or how with time, commitment and patience we can prevail over Alternative Archaeologies (by author).

Conclusion

Raising awareness about the importance of Archaeological Heritage and what Archaeology really is represents a very important issue for us as a collective. The current widespread image of Archaeology is an obstacle to the public diffusion of our work and the preservation of our past.

Alternative Archaeology is directly linked to more important problems, such as those related to politics, which I did not deal with in this paper or the struggle with the construction world that in countries like Spain represents the sustenance and, at the same time, the main reason of destruction for Archaeology.

A common approach to all these issues is closely related to Education. 'The silent killer' strategy which I proposed in this paper in order to fight Alternative Archaeology is nothing else than a good Education programme conducted from Archaeology. We cannot forget that the rapid expansion of Pseudoscience originates from the ignorance and lack of access to Science that the public have. Archaeology, as we have just seen, is not an exception to this rule, but 'plays' with an advantage due to the already existing society's active interest in it.

Education must be the central point of our work. The increasing knowledge about Archaeology among the public is the only sustainable way to effectively change the views of the past and the profession. This education does not only have to be oriented to children, as it usually is, but also focused on all society levels and especially on those areas in direct contact with us. But we cannot wait until someone else does it. It is our responsibility.

We must do something about Alternative Archaeology, but with such an intricate panorama it becomes difficult to develop a common strategy. For the time being, we do not need a common approach; we must only have two ideas in mind: Communication (for the alternatives) and Action (for the public). With these two premises 'the silent killer' strategy can work, slowly but safely, towards a better understanding of Archaeology.

Because together, we can.

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POINTS OF YOU

My experience in pseudoarchaeology

José Manuel PEQUE MARTÍNEZ

People, our public, usually have a poor knowledge of archaeology. In fact, the public only have knowledge of the activities archaeologists do when they discover a very important site, and after seeing it or hearing about it in the media. Otherwise, the public is not aware of what archaeology is and what it works on. Therefore, it is not surprising that some people get caught in the 'nets' of certain kinds of false beliefs about History and our past. My experience in pseudoarchaeology made me think there are internal and external factors that can make anyone fall prey to these beliefs.

External factors are based on the general ignorance about the topics that pseudoarchaeologists deal with in their work. Obviously, it is easier to capture an audience for your 'particular' ideas about archaeology or ancient history if a large majority of people do not know in detail the scientific explanation of these issues. Many people confuse archaeology with exploration or adventure, and others really think that archaeologists do not know all that is discovered in archaeological sites. This is a real image problem that must be solved somehow soon.

Internal factors are the personality constraints of anyone that chooses to believe in pseudoarchaeological theories. In my particular case, the motivators were a lawless passion for ancient history, without a formal academic training (I am not an historian or archaeologist), and a personal situation for which I needed an outlet, after a family tragedy that had shaken the foundations of my beliefs about the world and religious faith.

This explanation, which may be irrelevant to the subject, was, however, the starting point of my search for an explanation of why things were so unfair. I decided that the answer lies in the origins of religion. Were people tampered with, or just misunderstood ancient events? Why seek for religious or mystical explanations of what could actually be an alien intervention in the history of ancient civilizations?

My search began with buying books about mysteries in History by well-known Spanish –my country- authors, such as JJ Benitez. This author has written numerous books, like *Caballo de Troya* (Trojan Horse), that addressed the issue of alleged extraterrestrial intervention in ancient times, in a mild way, and based more on inspirations or “intuitions” rather than concrete evidence -what is a common mistake made by the vast majority of authors who address this issue.

For example, I have carefully read his book *Astronautas en la Prehistoria/Escribamos de nuevo la Historia* (Astronauts in prehistory/ Let’s write History again), which is based on a chapter of a TV series made for the public Spanish television entitled *Planeta Encantado* (Charmed planet). It was about the cave paintings of Tassili in the Algerian Sahara, and alleged implications of visitors from others planets. Of course, this documentary does not show any conclusive proof beyond the personal ideas of the presenter (Benítez). I understand that there are people who believe in it, especially if we take into account the general ignorance about archaeology mentioned earlier, and the attractive and easy-to-understand ideas presented.

I could cite a list of pseudoarchaeologic authors that I consulted back when I was rejecting everything that had to do with a scientific or official explanation. Among them, the books of Zecharia Sitchin about his ‘vision’ of history and his interpretation of Sumerian mythology and cosmogony as something that really happened, or Von Danniken’s texts, in which he did not only show he was not an historian or archaeologist, but also that he had no idea what he was writing about.

Today I know that those books and TV programs were not really contributing anything to me, but rather the opposite; they were helping me form totally false ideas. Back then I trusted them. Moreover, the problem increased when I automatically stopped reading anything that did not have to do with these issues, and ended up completely convinced that there really was some kind of extraterrestrial intervention in the beginning of ancient civilizations.

Luckily for me, I never got to believe in conspiracy theories or in those sects camouflaged under the “not official archaeology” title to get followers. They have their ‘operational centres’ on the Internet, and for this reason the Internet is an unreliable communication network, when not a ‘hellhole’ where any preacher of the paranormal can say whatever he wants and build a group of loyal followers that trust him.

That affected my work, and I wrote several articles in which I exposed these ideas as likeñy or even true. I lost prestige as a freelance writer and had to struggle every day with the advice of colleagues and friends who asked me to rectify and document my texts well.

My 'conversion' finally happened on a December night of 2010, when I went to a presentation of a book edited by Jaime Almansa, a Spanish archaeologist devoted body and soul to the public diffusion of archaeology. A few weeks before, he had given me an introductory course of archaeology and I wanted to continue that relationship with him in order to learn more about this scientific discipline and push myself forward at work.

Chatting that night with him and Oscar Blázquez, a friend of his, I did not hesitate to ask them directly what was true in the alleged extraterrestrial intervention theories, and they laconically answered: "Nothing". Then, I immediately asked for more information on this issue and they informed me of the real archaeological knowledge about it. This affected me, as if they had opened my brain with a key and I admitted, at last, the sanity and common sense that, without realizing it, I had lost.

Since then, I try to offer in my texts the most contrasted information possible, and thanks to that event I am currently the editor of my own website, and I am writing this text now. My example may serve to give a clue about what archaeologists have to do in order to stop alternative archaeology from becoming a greater problem.

The key seems to lie in a better communication between archaeologists – not writers, journalists or amateurs-, and the public without intermediaries. Reporting recent research and discoveries should improve public knowledge. I have personally gone to meetings like this, and I must say that the experience was rewarding for both the archaeologist and the public, who came out happy with this new and exemplary experience.

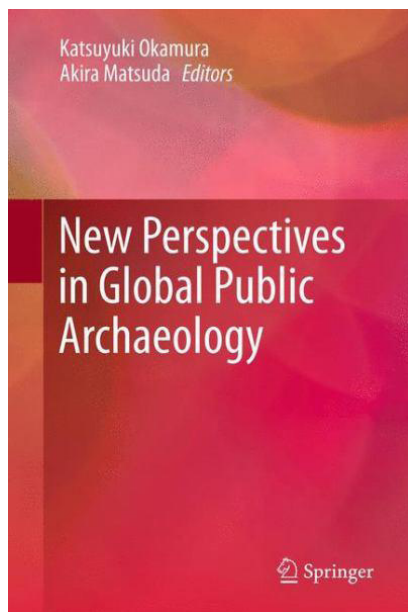
Therefore, in my opinion, if archaeologists want the problem of alternative archaeologies to be minimized over time, they must abandon their strict academic circle of 'initiated', in which they generally move, and try to take public initiatives for all those who wish to participate, using a discourse that also allows the public to understand clearly what archaeology is and how it works.

I know that this is not an easy task, building a mountain of knowledge from grains of sand. I also know that building public initiatives depends on the support from governments and companies, but I strongly believe that just the intention of making them happen is a very important step to achieve these objectives.

Definitely, such initiatives can keep the public interested in archaeology and history in the future. This interest is essential for the future of archaeology and, therefore, something that we all should work in as soon as possible.

Madrid, November 2011

REVIEWS



Sarah MAY
English Heritage

New Perspectives in Global Public Archaeology

[Ed. by Katsuyuki Okamura
and Akira Matsuda]

Springer
ISBN: 978-1-4614-0340-1
280 pages

This really stimulating book lives up to its far reaching title. 20 chapters, covering contributions from every continent, consider what public archaeology is and how it is expressed in individual countries. It is particularly refreshing to read a book which is not dominated by European or North American perspectives. The editors begin the volume with a strong piece exploring the variety of meanings that 'Public Archaeology' can have. They recognise that there is a particular issue around the meaning of the word 'Public' both in English, where the term originated, and in most other languages considered in the book. There is a real tension between Public as state-sponsored and Public as relating to community concerns. In the end, they settle on a definition which defines the volume, even though many papers may diverge from it: "a subject that examines the relationship between archaeology and the public and seeks to improve it" (4).

The papers present a mix of case studies, surveys of current practice and histories of development of the field. Although each paper can be read usefully on its own, it really is worth reading the

whole volume, both for the themes which are developed and for the comparative perspective that is helpful.

For instance, papers from Thailand, Jordan, Peru, and Korea highlight tensions between tourism as the main benefit of archaeology for the public and other roles that Public Archaeology can play. It is a real point of tension for post-colonial societies. A particular problem here is highlighted in Thiaw's paper on slavery in Senegal, where tourism regarding the transatlantic Slave trade bolsters the silencing of domestic slavery past and present. Hopefully, this volume will allow these comparisons to be made more often so that we can learn from each other.

Most authors are careful to present the historical and political context of their work in some detail so that it is not necessary to know the field in order to follow arguments. Inevitably, I feel better able to criticise the papers that are closer to my own research background. Both the papers discussing Britain and the paper discussing Canada present the promotion of Public Archaeology as largely a matter of communication. There is little consideration of how archaeology in these societies is implicated in contemporary power structures. Similarly, Pyburn suggests that "The situation has been quite different for British, European, Australian, and American archaeologists practicing outside their own nations, where the connection of the past to national heritage has been controversial". I think that the connection of the past to national heritage is controversial in most nations, but we are sometimes too close to the power structures to see our role in them.

This is well contrasted by Abu-Khafajah in his detailed consideration of the use of archaeology in the Citadel of Amman. The extensive use of material from informants allows his work to represent considerably both people who are excited by the expensive parties that the citadel is often used for, and those who feel excluded by them. The use of informants also adds depth to Matsuda's consideration of transnational politics in Public Archaeology. It is a brave thing to take this critical approach to your own work, and he pursues honesty in his informants to make sure that it goes beyond self-justification.

In his historical exploration of the beginnings of Public Archaeology in China, Wang brings forward the disjunction between the two meanings of 'public' that are highlighted in the introduction. State-sanctioned archaeology is not always of interest to or in the interests of a wider sense of the public. Academic archaeologists in China are

now reluctant to become involved in Public Archaeology because they are worried about manipulation of their research. In all of the papers with a historical dimension there is a common narrative that vibrant research in archaeology is deadened by control by state bureaucracy and a hope that contact with 'the Public' will enliven it again.

Overall, there is a strong belief in the value and power of archaeology to tell 'true' stories based on evidence. Henson is particularly convinced that the richer past offered by archaeology is useful in empowering citizens to consider issues like climate change. Even in their description of a multi-vocal approach to the heritage of the American Southwest, Colwell-Chanthaphonh et al. give archaeology pride of place as the framework by which the work is constructed.

However, archaeology is not always the best way to serve a public interest in the past. But in his discussion of the Prestwich Street Dead, Shepherd argues that archaeological interests conflicted with public interests and have harmed community cohesion and appropriate remembrance. Similarly, Burke et al. describe an Australian project that was clearly based on public interest. But by exploring a WWII hospital and its air raid shelters they may have reduced some of the value that the site held for its communities.

Sand et al. take a more pragmatic approach to the use of archaeology in nation building for New Caledonia. Aware of the many ways in which archaeology can be used, they have consciously chosen to support a diverse and politically sensitive use of the past in their work. I was quite surprised when I read the piece because it was so open about the deliberate choice of projects for their public purpose, rather than for pursuit of the 'truth'. But the paper convinced me that if we are truly pursuing Public Archaeology then 'Archaeology' may need to come after the 'Public'.

Hodder makes an argument for flexibility of approach, relating to the needs of different publics, using his long-running project at Catalhöyük as a case study. His consideration of situational ethics is useful, but he does not examine what his own motivation for the work is, and this is something that runs through many of the papers. We spend time considering what motivates members of the public to become involved in 'our work' but we don't acknowledge what drives us.

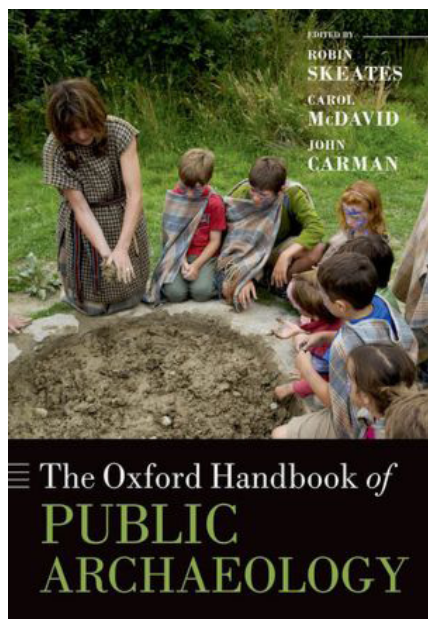
The focus of the volume really is on the relationship between archaeologists and the various publics they engage with, but there is some discussion of the types of engagement involved. Only two papers

discuss the use of social media, and in both cases it was an addition to the original plans for work. The e-journal *Arkeos* is described as an excellent medium for encouraging interaction between archaeologists and the public. Perhaps it is simply an indication of the fact that digital technologies move faster than publishing books like this, but neither paper presents a very sophisticated view of the complex ways in which social media create and are created by communities.

A number of papers consider the important role of education in Public Archaeology. The detailed assessment of archaeology in the Jordanian primary school system is also critically aware of the political role of the past in Jordan. A similarly critical view is given of the circumstance in Japan by Murata and this paper provides a good context for the work in an overall exploration of the role of education in Japanese society. Both papers highlight the ways in which particular periods are taught while others are excluded. I am struck by the challenge we face in trying to use archaeology to broaden children's understanding of the past. Because this exclusion serves political purposes we must address the politics and not simply hope that improving our communication or providing better resources will remedy the situation.

The volume represents a real milestone in Public Archaeology because of its reach, detail and critical approach. It is striking, however, that the papers from the countries where the notion of Public Archaeology originated are less critical in their approach than those from countries which see themselves as only beginning. Perhaps this is because there is more awareness of how politically significant the past can be, stemming from the resistance of governments and institutions to broaden archaeology's reach.

REVIEWS



Jaime ALMANSA SÁNCHEZ
JAS Arqueología S.L.U.

**The Oxford Handbook of
Public Archaeology**
[Ed. by Robin Skeates, Carol McDavid
and John Carman]

Oxford University Press
ISBN: 978-0-19-923782-1
751 pages

I could not believe how fast Oxford University Press sent me a copy of the book. So fast, that this review is one of the causes of the delay in this volume's publication. I needed to include it; seven hundred pages of Public Archaeology deserved it.

My first impression when I opened the parcel was, "wow, huge!" The second, "I thought a handbook was something else..." as my expectations crumbled a bit when I looked at the contents. But I could not have any negative feelings in front of such an impressive compilation of papers, so I ended up thinking, "Great! Anyway this is a step forward."

In the following lines, I will try to provide a constructive critique of the book and an overview of its main papers, within the context of current publications in the field.

What is Public Archaeology? This is one of the questions we need to ask ourselves before saying anything else. The first forum in this volume of AP Journal serves as an example of the uncertainty about a

term we have been using for forty years, not really knowing what we meant. When I started this journal, I tried to give a short and concise definition to be used (Almansa 2010) and in this line, we also have Gabriel Moshenka's proposal, as an answer to our question, "What makes #pubarch important?" (see this volume's Editorial). If I had to reach a conclusion only from the scope of the journal, it would be that public archaeology is not only...

So I must say that public archaeology is not only what this book offers, and that is why I am reluctant to call it a "handbook". The introduction explains the content better than the cover and I should note that I mostly agree with it. By this I mean that with a different title this review would have been even better. One of my first contacts with public archaeology was a basic book in the field (Merriman 2004). What is the difference between Merriman's book and this one, besides the date and the number of pages? It worries me that we seem to be in the same stage of a new-born discipline eight years later.

Delving into the book, a new question arises. The editors say that "[m]any (but by no means all) of the contributors are Anglo-American in nationality or residence, reflecting the dominance of Anglophone discourse in this field" (2). I do not like this, even when I participate in the Anglophone neo-colonialism of science. The fact that we need to write and speak in English to understand each other does not mean Anglo-Americans dominate this field. A good explanation is actually given by Kristiansen (Chapter 23: 461-477), or the response I should give to Darville (Chapter 19: 373-394) when he calls the APAG the only one of the nearly 20 active professional associations of archaeologists in Spain (386). The fact that we do not have the chance to read other experiences (because we do not know the language, or they are not even published) does not mean the mainstream dominates. At this point, I would like to give two examples from Japan: The first one is another book reviewed in this volume (Okamura and Matsuda 2011) that includes the approaches from more than 10 different countries, mostly peripheral. The second one is a movie I love since I had the fortune to watch it, *Tsukinawa Kofun* (Kondo 1960, 1998), which shows an amazing community-participated dig that took place in 1952.

In many countries, the practice of public archaeology has been practiced for decades, but there was no label for it (or they used a different one). Since Charles McGimsey (1972) put the label, the name started to spread in the Anglo-American context and, step by step, in its area of influence, but the definition is not totally set yet. This is

why we are still corseted in partial views that already have/had a label and, although they are under the umbrella of public archaeology, they cannot be the (only) centre of the discourse anymore.

One important problem of the book I should highlight is the missing chapters, in terms of content and representation. But pulling the thread from the book, and being aware of the reasons given in the introduction, we can bear in mind Praetzelis' conclusion "one should act locally while thinking globally" (Chapter 16: 330). Forgiven.

Having said that, I prefer to focus on my 'Top 3' chapters, starting from McGhee's "Participatory Action Research and Archaeology" (Chapter 11: 213-229), a great example of what a handbook should contain; complete, didactic and useful. Nowadays, we have dozens of examples of community archaeology projects in the bibliography, but PAR is a step forward in terms of community participation with a greater goal; social change (remember McGuire 2008 and Stottman 2010). For me, this is one of the key issues in contemporary practice of public archaeology; not just sharing but also being useful. In this context, I would like to read between the lines of Chakrabarti's "Archaeology and Politics in the Third World, with special reference to India" (Chapter 6: 116-132). It is also a bright spot in the book. I have to admit that my personal point of view on this topic is slightly different, probably more radical owing to my experience in Ethiopia (Almansa *et al* 2011), but Chakrabarti highlights some essential issues in the practice of archaeology from the perspective of public archaeology; the way we (First World) work there (Third World) but not with them (local professionals and publics), or the added difficulties of doing public archaeology where we can hardly do even archaeology. Finally, Murray's "Writing histories of archaeology" (Chapter 7: 135-152) raises another essential issue that should concern public archaeology; Historiography. The impact of what we write for the diverse publics that can/may consume it, as well as for the development of archaeology. In this sense, not only a critical approach to already written material, but also a focus on archaeology as a discipline that deserves to be written about, are essential.

Besides these three chapters, I should also highlight Thomas' (Chapter 3: 60-81) on metal detecting in Britain, complemented by Brodie's (Chapter 12: 230-252) and Kersel's (Chapter 13: 253-272) on antiquities trade. This reminds me to promote the next book from JAS Arqueología (Rodríguez Temiño 2012), which is about the protection of archaeological heritage in Spain. Other chapters that are worth mentioning: Skeates' (Chapter 4: 82-99) walk through the History of

Maltese archaeology to show how it is represented; Pace's (Chapter 14: 275-298) on the value and sustainability of heritage; Schofield, Kiddey and Lashua's (Chapter 15: 296-318) on the ways landscape is understood and valued and how this affects research; most of the experiences of the fourth part, but especially the piece on ethics by Gustafson and Karlsson (Chapter 24: 478-495); and the great last chapter by Phillips and Gilchrist (Chapter 31: 673-693) on disabilities and archaeology.

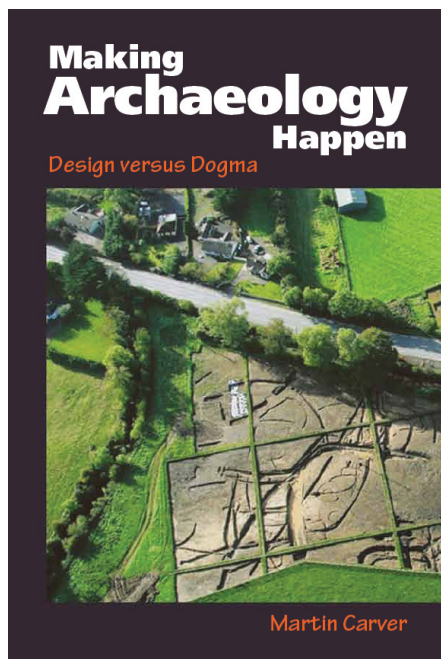
In total, the book consists of 31 chapters that we can now add to the extending bibliography about public archaeology. I am not sure whether one can learn what public archaeology is from the book or not. We might not be in a position to write a handbook yet. But what I am sure of is that this book is a valuable resource, from the texts themselves to their great bibliographies, for anyone wanting to delve into a variety of topics around public archaeology. My last thought, "a step forward", is my conclusion above any critique. It is true that I would have liked to also read about other views and topics. I expected more popular culture, some alternative archaeology, a bit of economy, deeper politics and theory. However, we have plenty of time to complement this and other books with more and more works that put public archaeology in the place it deserves. Meanwhile, *The Oxford Handbook of Public Archaeology* is another great initiative that helps us explore different ideas and practices to engage with the public and design our projects. As the editors conclude in their introduction, "we hope that you will have not only discovered what we know about public archaeology, but also questioned and debated our knowledge and opinions. In this way we might all contribute to redefining archaeology's place in the world."

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REVIEWS



Antonio VIZCAÍNO ESTEVAN
Universitat de València

Making Archaeology Happen Design versus Dogma

[by Martin Carver]

Left Coast Press
ISBN: 978-1-61132-025-1
184 pages

Summary: *This book is a consideration of archaeological fieldwork, the way in which it is practised, its possibilities and how it could be improved. Through the critical analysis of the components that determine this primary research and the reality of its implementation, Carver defends an archaeological practice more responsible in a professional, social and economical level, able to give effective responses to the multiplicity of situations that archaeologists find when working. All this should be built through a procedure –design- that has to contribute with creative solutions, escaping from dogmas and searching for a stronger social engagement.*

Once you have Carver's book in your hands, you feel inevitably attracted to the title: *Making archaeology happen*; a good way to start an essay. Moreover, *Design versus Dogma*. It does not happen very often that the word "design" becomes the center of attention when giving consideration to archaeology as a profession. But, what does Carver mean with *design*?

An interesting starting point for dealing with this question –and with the book in general- is to take into account whether archaeology, in this case focused on archaeological fieldwork, can be considered a science or an art, or both at the same time. The author suggests it at the beginning of the book and, direct or indirect, this is a constant idea throughout the text. Probably most archaeologists would answer the question quickly, choosing what seems more evident. But let's be patient.

Fieldwork is undoubtedly the practice most frequently associated with archaeology, both by the general public and professionals. Even though archaeology goes further, it is true that archaeological fieldwork constitutes the foundation on which the knowledge of the past is built. But, what does fieldwork activity imply?

When facing a new project, archaeologists have to deal with many different things: obviously, with one –or more- archaeological sites, the characteristics and conditions of which can be extremely different –as they actually are; also, with requirements imposed from above, sometimes related to research, others –most- related to record and preservation; moreover, they have to deal –commercial archaeologists know it well- with pressures from different groups whose interests are closely related to archaeological intervention; and, finally -we should not forget it- they are dealing with a community, a human group that coexists with the site, being more or less involved with the project, but, at the end, it is always affected by the archaeological work (Pyburn, 2009). In a kind of juggling game, archaeologists have to deal with all these elements, coordinating them in a coherent and well-balanced way in order to be successful. Otherwise, one of the juggling props could fall down and then the game would be over.

It is known that, when developing fieldwork, archaeologists are able to resort to using scientific methods and precise technologies. But we must also remember that archaeology studies societies of the past -that is inevitably influenced by the social context in which it is embedded- and, furthermore, its work has to be done in the public interest. Taking this into account, can archaeology be considered just as an empirical science? Obviously not. Archaeology, as Carver argues, is a science, a social science and an art at the same time; *"it's a historical pursuit deploying scientific procedures in a social arena"* (p. 33). As our discipline deals with so many different fields and variables, it seems logical to think that there is not a unique model which can be applied to every case, but, on the contrary, each case needs its

own method, a particularized design; this is, at least, what in Carver's opinion makes archaeology happen.

But what is our real situation? Does archaeology happen as it really could? Are we matching the actual possibilities when practising archaeology? These are some of the questions that Carver poses in this interesting book. Let's see some of his approaches.

The book

In the preface Carver makes it quite clear; the current book gives consideration to archaeological practice after thirty years of fieldwork experience. Archaeologists, as the author complains, do not think often about their profession, about what they do and why they do it. Unfortunately, lack of self-criticism has led archaeological work to a kind of permanent stagnation: *"I believe that archaeological practice has become unduly fossilized, and our procedures are unambitious, unquestioning, standardized, resigned to a low quality and wedded to default systems"* (p. 10). Given the circumstances, Carver has decided to analyze the elements and stakeholders that take part in designing archaeological practice, showing what is missed and highlighting its possibilities. However, as he explains at the beginning of the book, this text has been thought in an informal way, *"like a lunchtime chat at the site edge, or in the bar at the end of the day"* (p. 10). As a result, here we have an easy-to-read book that offers a well-structured trip through archaeological fieldwork, with interesting considerations and proposals.

The book has six chapters and is divided into two main parts; the first one –integrated by the two first chapters- is devoted to the analysis of different realities that influence the design of archaeological practice. The second one –composed of the two last chapters- concentrates on critics and proposals. Between them there is chapter 4, where the author presents some examples in order to illustrate his arguments.

As Carver says, everything we do is driven by our context, that is to say, our life experiences, our social and home environment, our academic training. Obviously, archaeological practice is not unaware of this situation, so the construction we make of the past, our research objectives and the way we apply a particular method are inevitably conditioned by our context. This consideration is what brings Carver to carry out *A visit to the ancestors* in chapter 1. Here he goes over different distinguished figures in archaeological theory and method in order to evidence how, according to their context, they generated

particular methods of excavation that were sometimes taken as dogmas of unquestionable validity -the author applies himself to this exercise in introspection and highlights which episodes in his life have determined the way he understands archaeology. Based on this idea, Carver starts building his discourse: there is no standardized and universally valid method for archaeology; on the contrary, archaeologists must evaluate possibilities according to different circumstances and, at this point, use their ingenuity and the most suitable techniques; *"Doing Archaeology is not a matter of being right or wrong, but of being appropriate"* (p. 33). This process is what Carver calls design. There are, therefore, countless possibilities.

But what are the factors that determine the differences among the projects and the need of particular design? Apart from research agenda, Carver underlines the terrain and the social context. The first one is discussed in chapter 2 where, taking into consideration the fact that what is recovered by archaeology is not an objective reality -*"what we see is what we seek"* (p. 37)-, the author carries out a categorization of the components that constitute the archaeological deposit according to its detection and analysis possibilities -mega, macro, micro and nano categories- and talks about the implemented techniques and how technological advances have helped to increase the scope of archaeological research.

Another crucial factor when designing an archaeological project is the social context. In chapter 3 Carver analyzes the influence of the socio-political situation through different levels: successful civic movements in the archaeological field; the kind of State and the way it generates particular professional practices; and professional relationships and status derived from the rise of market values in the archaeological work. The author defends a socially engaged archaeology by promoting social participation, and responsibility based on the production of new knowledge; this is, in Carver's opinion, the real value of archaeology. Archaeologists should channel their efforts towards that value and from here society should start revaluating professional archaeology.

The way in which these three determining factors -research objectives, terrain and social context- interact and take part in archaeological practice, can be found in some interesting and illustrative examples from all over the world in chapter 4.

Without a doubt, chapter 5 is the most interesting. After the analysis of what the author considers a real and effective field

research procedure, and after paying attention to the main troubles of archaeological practice both in commercial and academic perspective, Carver proposes a "*remedial strategy*" in which concepts like design, quality, research, collaboration and social engagement are the main characters; in other words, "*a procurement procedure that can unify both sectors [university and commercial archaeology] and serve their publics*" (p. 119).

Chapter 6 brings the discussion to an end, with a proposal on how archaeology could face and solve its current situation, what would -in his opinion- happen with the consolidation of the main mission of the discipline -the production of new knowledge- and with an improvement in communicating with the general public and especially with the directly related agents. In spite of the current problems, the author discerns some hope in his conclusion message.

Conclusions

If at the beginning of his book Carver complains about how little archaeologists think about their work, now, after reading it, he can be pleased to know that his text makes it happen, inevitably.

The book is an accurate diagnosis of some of the main obstacles that weigh down archaeological work, which he rightly attribute to external and internal factors -self-criticism task which is appreciative because archaeologists often take pains to blame others, trying to escape from any responsibility. It is true that most questions discussed in the book seem evident and are not new -Faulkner, for example, wrote an interesting article about standardization in archaeology and the need of enriching the methods (Faulkner, 2000); moreover, we are sick and tired of hearing over and over again about some topics -among them the central dilemma university-research vs. commercial archaeology-record sites; but the fact is that things are still being developed in the same way and initiatives going further are very few.

An interesting point in this book is that Carver does not only analyze and criticize the situation of archaeological work, but also talks about its potential and offers some proposals in order to improve it. It is very appealing, in this sense, the idea of unifying efforts from universities -that produce new research- and commercial archaeology -that manage research resources- as two parts of the same machine, with the aim to strengthen archaeological practice in which -and this is the real contribution of the book- design becomes the backbone of archaeological practice. That is to say, trying to offer creative and high-

quality projects, properly valued by costumers and society –as happens with architects, with whom Carver makes an analogy- that should have positive consequences both in social and professional fields. In this sense, the idea of ‘design competition’, instead of competitive tender based on money, is frankly interesting. However, it would need a real public awareness, and the task is not easy.

From my point of view, the most remarkable thing in the book is how the author calls for social engagement and ethics in archaeological practice; not because he considers that the social context is probably the most influential factor when designing an archaeological project, but because he claims for social participation since the beginning –that is to say, in the decision making, in the archaeological excavation and, of course, as a main beneficiary of the archaeological work. Nevertheless, there is something that I would like to specify: considering the knowledge of the past -as Carver does- the main value of archaeology. Obviously, I agree with him, but in my opinion archaeology’s possibilities go further than producing knowledge. Actually, we know through many examples that archaeology can contribute to the improvement of some aspects of people’s daily life, and not necessarily due to the production of new knowledge, but because of the archaeological practice itself. Carver even comments on this fact and values it in a positive way, but does not give enough importance to it. In my opinion, what is remarkable is that in archaeology not only the product has a social value, but also the process of archaeological practice itself; and this value has very different possibilities, from satisfying personal necessities to encouraging collective tools, skills and attitudes (Merriman, 2007).

In any case, it is to appreciate that in an observation on archaeological practice and its methods the author has underlined the importance of the social component, something often forgotten; after all “*archaeological investigation is not a piece of private head-scratching but a public act of courage*” (p. 136). Knowing this, I strongly recommend Carver’s book to every professional in archaeology. We know what our reality is and how it affects us, although not always we admit our responsibilities. However, if we are to keep archaeology alive, to turn it into a viable and socially engaged practice, then we must start readjusting the way we are carrying out our work. *Making Archaeology Happen. Design versus Dogma* can be an interesting starting point for this.

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REVIEWS



José María SEÑORÁN MARTÍN
INCIPIT-CSIC

El futuro de la arqueología en España

[Ed. by Jaime Almansa Sánchez]

JAS Arqueología Editorial
ISBN: 978-84-938146-8-7
298 pages

It is complicated to write a report on a book that is not yet finished; this is precisely the situation in which we currently find ourselves. The work reviewed in this article is part of a wider project, also unfinished, and the result of Jaime Almansa's (the author) idea, whose ultimate objective is to progress towards a Public Archaeology or to be precise, towards the socialisation of Archaeology. It is important to stress these objectives, rather than focus exclusively on the book, whose suggestive title is a clear declaration of intent. The fact that the book is unfinished, is reflected in the blog to which it is linked: <http://elfuturodelaarqueologia.blogspot.com/>, which is open to online publication of new chapters. In fact, the book currently includes three extra chapters in its online version. We also need to emphasize the commitment of the publishing company to Spanish Archaeology; for example, 1€ of each book sold goes to AMTTA (Asociación Madrileña de Trabajadores y Trabajadoras en Arqueología). This organization is currently advocating the development of a working agreement in the Archaeology sector in Madrid.

Once we have mentioned some peripheral aspects of the book, we must focus on the work itself. We must highlight that, since a few years ago, the direction that the archaeological sector is taking disconcerts many within this sphere. I would like to apologise for starting this article with negative comments, but somehow this feeling comes from the book that it is reviewed here. These negative feeling is shared by the majority of those who have participated in the book. However, despite this, they suggest solutions for the current situation of Archaeology, with the aim to benefit the leading professionals as well as society, this being the main beneficiary of our Archaeological Heritage.

The book that is reviewed in this article is the result of an idea which the author has been working on for many years; his aim is to present the current situation of the sector from different perspectives and make proposals for the improvement of this professional body in all its areas. To achieve this, the author has selected a wide variety of participants, 44 (plus himself) to be exact, who offer their particular vision of Archaeology and of its current situation. It is worth noting that the participants come from different geographical and professional areas.

The participating authors come from a variety of professional areas, such as PhD students, researchers from a wide range of research centres, such as CSIC (Spanish National Research Council), physical anthropologists, sociologists, etc. However, the majority of the work has been carried out by archaeologists, particularly those linked to Commercial Archaeology.

In relation to the geographical diversity of the authors, we need to highlight two aspects; first, most of Spain's Autonomous Communities are represented in the book by one or several authors. However, some regions, such as Ceuta, Melilla and Aragón, are not represented at all. It would have been interesting to illustrate the concerns and ideas of professionals from these areas of the country. With reference to the geographical location, we must also highlight that some authors deal with the topic at a general level, paying particular attention to issues such as circulation of information, research, etc., whilst others present the current situation of the particular region where they work; this is true in the case of Valentín Álvarez in Asturias or David Javaloyas in Islas Baleares.

With regards to the issues addressed in the book, one topic concerns the current situation of Commercial Archaeology; there are

actually 28 chapters that deal directly with this issue (Ch. 1, 3, 5, 7, 8, 9, 10, 13, 14, 15, 16, 18, 19, 20, 23, 25, 26, 27, 28, 29, 30, 31, 34, 39, 40, 41, 42, 43). This is also a reflection of the number of participants involved directly or indirectly with Commercial Archaeology. The crisis in the area of Commercial Archaeology has been discussed in recent years in several scientific articles (such as in Parga-Dans and Varela 2011, Moya Maleno 2010). This book illustrates how Spanish Commercial Archaeology has been hindered partly due to the “crisis del ladrillo” (a metaphor that could be translated as a recession in the construction industry), although we should include this crisis within a wider phenomenon; Felipe Criado links it with a general recession (economical, social, political and cultural). Commercial Archaeology developed in Spain without any control or restraints, in parallel with the development of large infrastructures within the building industry. The failure of this economic model, based upon the building industry, has hindered the development of Commercial Archaeology. Although most authors blame the recession of Commercial Archaeology on this failure, authors such as Eva Parga and David Barreiro state that the reasons for this recession are deeper and involve structural problems in the sector.

Further reasons for this crisis may relate to the weakness of the Spanish market within which Commercial Archaeology is set, driven by “the need of combining the protection of Cultural heritage with economic profits” (Moya Maleno, 2010, 9). However, we need to explain, as David Barreiro states, that the causes are deeper and more complex and the solution to the current problems will arise only by developing an economic model that guarantees appropriate and reasonable working conditions and by the socialization of Cultural Heritage, separate from the speculative market in which Spanish economy is embedded. In this sense, we need to highlight the contribution of Eva Zarco and Alba Masclans. Zarco addresses the associativism in Madrid, AMTTA in particular, which is key to the development of a collective working agreement in this region of Spain. Masclans explains how the professional archaeological sector has made use of existing organizations, such as CNT (National Confederation of Labour), to improve working conditions. These are illustrated as an “unreal account” in works by Carlos Marín and Riccardo Frigoli. Other authors also consider that innovations in the professional field are necessary. The objective is to not restrict Archaeology to excavations in sites that are set up for infrastructure and construction development.

Another important aspect of the book is to create an active relationship between universities and archaeological companies. In recent years, the number of excavations in Spain has risen astronomically, as the data compiled by Gonzalo Aranda demonstrate. The problem is that a large part of the excavation reports will be filed away and forgotten about by administrators without being analyzed accurately. There may be different solutions to this, from creating mixed projects between universities and archaeological companies to including funds for research in archaeological projects' budgets. At this point, we can also mention the problems related to the administrative procedures in Archaeology. Instigated by Ley 16/1985 de Patrimonio Histórico Español (the Spanish Cultural Heritage Law) and the handover of responsibilities to the Autonomous Communities, each of which has opted for a different administrative model. We must bring to attention the work of Gonzalo Aranda and Margarita Sánchez Romero, who show how the administrative model created in Andalucía can be used as an exemplary model as it is based on Preventative Archaeology.

Other important aspects are those in relation to academic formation in Archaeology (Ch. 1, 3, 6, 11, 13, 15, 16, 17, 18, 19, 20, 24, 25, 26, 27, 35, 40, 41). Universities have not planned the curricula in accordance with the needs of the sector, particularly of the commercial sector, as stated by Valentín Álvarez. This is one of the weaknesses of archaeological studies in Spain. Spanish universities, as opposed to other European universities (British universities, for example), do not provide the appropriate curriculum plans. The numerous changes in the educational system implemented in Spain throughout the last 25 years have not secured the right model. After the implementation of the Bologna Plan, Universidad Autónoma de Barcelona, Universidad de Barcelona and Universidad Complutense de Madrid have created a Archaeology degrees. This means that Archaeology is now recognised as a scientific discipline in itself. However, the fact that this has been implemented only in three universities in the country demonstrates the magnitude of the problem. Maybe we should consider whether creating Archaeology degrees in all Spanish universities is necessary; it may be more appropriate to create specialised departments where excellence is the driving force.

Other important topics relate to the dissemination of information, which is dealt with in 29 chapters (Ch. 2, 4, 6, 7, 8, 9, 11, 12, 16, 19, 21, 23, 25, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44); this illustrates the interest in this issue. It seems clear

that the direction that archaeological research should take is towards socialising Heritage. Hence the importance of didactics, as stated by M. Carmen Rojo. In this sense, as stated by Agustín Azkárate, new models of political engagement, oriented to the democratization of the development of technology and science, should be created. It is also worth mentioning Jorge Rolland's contribution, who advocates in favour of pedagogy and reflects on how we produce knowledge, rejecting the differentiation between non-experts and experts, bringing Heritage closer to the general public and avoiding an elitist Archaeology, as stated by Arturo Ruiz.

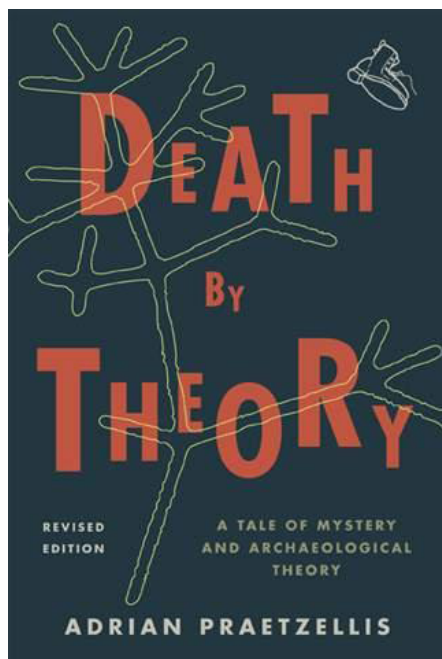
Finally, it is worth mentioning the issue of research; this is dealt with in 17 chapters of the book (Ch. 2, 3, 4, 6, 7, 10, 15, 17, 19, 23, 24, 32, 33, 35, 38, 41, 42). Traditionally, research has been linked to public centres (museums, universities, research centres). In the reviewed book, the author evidences how in recent years, due to the lack of collaboration between research centres and companies, a large percentage of archaeological excavations have only resulted in administrative reports. It is necessary to link up Academia and Commercial Archaeology as proposed by Roberto Ontañón, who rejects the current impermeability, resistance and lack of recognition. Moreover, Agustín Azkárate advocates in favour of multidisciplinary projects.

In conclusion, we must stress that the book offers a quite complete understanding of the current situation of Archaeology in Spain, offering diverse solutions to a variety of different problems. We must understand that, considering the general crisis affecting our country, Spanish Archaeology, in order to have a future, needs to take Europe into account, as stated by Pilar López. In order to achieve this, Spanish Archaeology needs to focus on certain basic principles, such as Heritage socialisation, empowerment of communities, multidisciplinary projects and good administration.

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REVIEWS



Riccardo FRIGOLI
Independent Researcher

Death by Theory
A tale of mystery and
archaeological theory

[by Adrian Praetzelis]

AltaMira Press
ISBN: 978-0759119581
198 pages

An amazing and mysterious archaeological discovery in the Pacific coast of North America. Hannah Green, archaeologist, and her nephew, Sean, will be involved in a strange archaeological affair, a sort of vortex of academic envy, tourist interests, esoteric threats and racial prejudices. Taking up the "sword" (or the "Occam's Razor") of scientific archaeological theory, Hannah will have to drive dissolve the mist of misconceptions and non-scientific prejudices that surround the site to "solve the mystery". No guns, no whips, no leather hats... but a "real" picture of a contemporary archaeologist at work. But "Death by Theory" is more than that; the book of Adrian Praetzelis (Professor of Anthropology and Director of the Anthropological Studies Center at Sonoma State University, California) is an introduction to the passionate, but sometimes hard and complicated, field of theoretical archaeology.

Through the dialogues among the characters, Hannah, Sean and professor Ian Tulliver, the author deals with the most important theoretical topics of the discipline. As threads are elegantly interlaced to

create a precious and lasting weave, the mixture of fictional characters created by Adrian Praetzellis and the real archaeologists cited in the text creates a very interesting and original literary product of what the author himself defines as "the unappreciated field of archaeology/mystery/textbook".

"The archaeology of the past twenty-five years has assimilated the theoretical debates of at least the past century, from structuralism and hermeneutics to phenomenology. The pace of assimilation has been rapid. Topics are adopted, burn brightly, and fade with amazing speed. As a result, the historical depth of different theoretical approaches is fairly thin. Like all science, as archaeology adopts new approaches others are forgotten" (Jones 2009: 106). In this sense, "Death by theory" results in being a valid approach to the development of archaeological theory, at least in its key-points, during the last century of archaeological investigation. Archaeology is not a hard science; indeed, like other social sciences, it follows an accumulative development not strictly progressive. Because of its soft nature (soft science), the discipline today needs, more than ever, important historiographic and theoretical contributions.

The book of Professor Praetzellis is not an academic essay (this is not the author's goal), but offers the reader a correct explanation of the different archaeological theories through the words of the novel's protagonist. The "archaeological mystery" imagined by the author (we have to remember that "Death by theory" is also a novel) corresponds to a precise evaluation of the theoretical status of archaeological science. Page by page the reader, captivated by the development of the mystery tale -the fiction part of the book-, finds out how real archaeology is and how real archaeologists work.

In the first pages of the book, the author addresses, through the words of one of the main characters, one of the crucial theoretical questions of contemporary archaeological investigation: "is archaeology a science or isn't it?" We return to the disputed classification of science in hard sciences and soft sciences. This theoretical topic gained importance and relevance after the loss of innocence due to the development of New Archaeology and the following criticism of Processual Archaeology. Praetzellis is clear on this issue: "this science or not-a-science business is a bit of a false dichotomy. Archaeology isn't a science in the same way that chemistry is. Listen! The scientific method works best when people can test their ideas by making predictions and seeing if things turn out the way they expect. [...] Archaeologists can make some predictive

statements [...]. But people aren't as predictable as chemicals, and they don't follow universal laws of behaviour that we can use to predict – or should I say retro-dict – what they did in the past”.

Following his best way of story-telling, the author builds up a tale in which archaeological fieldwork and method seem like a police investigation, where detail analysis, scientific training and the rejection of both personal and academic prejudices result in the key for comprehending both the archaeological evidence and the criminal evidence. There's no doubt that adventurer-archaeologists, anti-nazi or tomb raiders had been an effective formula of fun for the public in adventure films, novels, and video games, but archaeology is something more than that, maybe it's much more.

Professor Praetzellis offers us a simple but well written story, a story almost believable if we remember the most famous archaeological frauds and fakes, from the “Piltdown man” to the Spanish case of Iruña Veleia. As an archaeologist I enjoyed the precision of the scientific character of the book and the focus on the most recent -and sometimes controversial- theoretical key-points in archaeological research; as a reader I enjoyed overall the light and educated but effective sense of humour of the author (for example: “for as Hannah well knew, if you put archaeologists within striking distance of free food, it disappears faster than sand through a quarter-inch shaker screen”) and the use of illustrations: one of my favourites is “The history of archaeology (as viewed via headgear)”.

Several times, us archaeologists have had to deal with political pressures (“just as archaeologists don't interpret their sites in an intellectual vacuum, neither do they work in a political void”), so the hard relationship between archaeology and nationalism is another topic that Praetzellis addresses, taking for example the Near East area: “while many North Americans think of preserving the evidence of their country's history as a pastime for the overeducated and underemployed, in Israel archaeology and national identity are inextricably bound. Nationhood is quite literally a matter of life and death”.

Archaeological theory is strictly linked with the history of the discipline, with men and women who developed new approaches to the study of material evidence. Praetzellis, in the course of the novel, presents to the readers the most important archaeologists, those personalities who shaped the development of the discipline, from Thomsen and his Three Ages System, to Ian Hodder and his excavation

at Çatalhöyük, going through to Marija Gimbutas and the "Old Europe", Lewis Binford and his middle range theory, New Archaeology and V. Gordon Childe... At the same time archaeology, especially in North America, is linked with the development of anthropological theory, so the author underlines the importance of some concepts borrowed from anthropology to archaeology like determinism, gender and feminist critique of archaeology, agency, the traditional anthropological classification of societies (band societies, segmentary societies, chiefdoms and state societies), cultural relativity, emic-etic approach, and the crucial relationship between archaeology (the science and the scientists) and Native American communities that today live in North America, like the Hopi: on the one hand "a lot of Hopi think that archaeology is fine [...], because it gives them more information about their clan migrations and how they got to be on the mesa where they live now. Not that they need archaeology to confirm that. They already have oral histories and sacred stories. But some places are out of bounds", and on the other hand "...a site could be more important than just the information that we archaeologists can get out of it. And sometimes that information just shouldn't be out there for everyone to see".

The book is constituted by 10 chapters, an epilogue, some "talking points", a glossary and bibliography. The whole product is perfectly assimilable to students, professional archaeologists and everyone who has an interest in archaeology. Good scientific popularization is neither a simple task nor a marginal field (or at least, it shouldn't be), far from the "pure" scientific investigation. In the case of archaeology, a non-vulgar popularization is a necessary task today more than ever, with the increase of urbanization, literacy and the improvement of technologies that make archaeology accessible to a great portion of the world's population. An archaeology too far from society, isolated in a hidden "ivory tower" is neither a social science, nor history or anthropology.

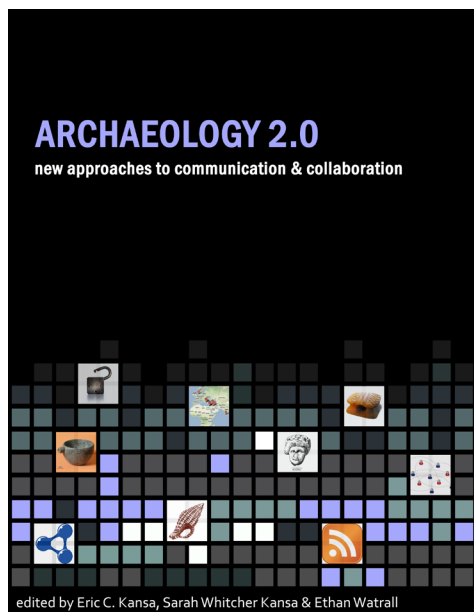
The author's idea of archaeology is clear: "remember, it's more important to start out in archaeology by getting an understanding of its logic than by memorizing who invaded whom and which culture's pots have that squiggly line around the top". This approach to understanding the discipline is quite different from the canonical approach of culture-historical archaeology that still today reigns in Departments of Archaeology of several Universities, at least in Europe (or, maybe more correctly, in Mediterranean Europe).

At the end of the book we can read this sentence "... archaeology can do no more than tell stories about the past. Some are stories of harmony, others of discord. Some pass the test of Occam's razor, others don't. Some sound plausible but have no data to back them up". Praetzellis told us a story about the past, about how archaeologists interpret the past, about the theoretical knots of the discipline and how archaeologists can solve them. Praetzellis also gave us something more: an interesting "archaeological mystery tale" and a good lesson in archaeology.

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REVIEWS



César MARTÍNEZ MARTÍNEZ
Freelance archaeologist

Archaeology 2.0 New approaches to Communication & Collaboration

[Ed. by Eric C. Kansa, Sarah W. Kansa
and Ethan Watrall]

UCLA
Cotsen Institute of Archaeology Press
ISBN: 978-1-931745-85-7
297 pages

This book, edited by Eric C. Kansa, Sarah W. Kansa and Ethan Watrall, is the outcome of a session held at the 2008 meeting of the Society for American Archaeology (SAA) in Vancouver, British Columbia. The majority of the chapters in this volume are based on presentations given during that session. However, in order to keep up with the fast pace of technological change, all contributors updated their chapters in 2010, to make information current. Therefore, given the speed of changes in IT, it could be argued that this is a reasonably current book.

In general, this book explores how Web 2.0 can transform archeological practice and how archaeologists, dealing with very specific types of data, can better understand the possibilities and limitations of the Web.

The editors define this volume as experimental, being the first volume published by the Cotsen Institute of Archaeology Press in their new Cotsen Digital Archaeology (CDA) series, which uses the University of California's eScholarship framework for digital publishing.

The structure of the book is based on four sections in which the authors approach to the fundamentals of the relationship between Archaeology and the Web:

The first section discusses the requirements, in terms of data, that Archaeology presents, and the problems associated with archaeological data and search; key problems, such as archaeological information sharing or information overload. Standard keyword search systems often retrieve too much irrelevant information or fail to deliver relevant information, making searches using keywords useless. At this point, the authors discuss the possibilities of archaeological information management, and how techniques in natural language processing (NLP) promise to enhance the value of archaeological literature.

Section 2 reviews the theoretical and technical context of Archaeology on the Web. The majority of digital material generated by archaeological activity is geographically distributed, incomplete, inconsistent, and often hard to access. The resulting complexity presents a whole new set of problems for Archaeology. In chapter 3, the author divides the process of using archaeological data into collection and harvesting; analysis, integration and interpretation; and social research. He explores various technologies and methodologies, commonly associated with both Web 2.0 and infrastructure. In particular, he sees folksonomy as a way to supplement and enhance traditional taxonomies.

Section 3 addresses the problem of geographically remote interdisciplinary teams, providing environment proposals for collaboration and knowledge management, such as VERA (Virtual Environment for Research in Archaeology), enabling professionals to work collaboratively.

Section 4 examines the current conception of the Web, for work dissemination and publication, emphasizing that a Web publication must be considered as a real publication. Other critical issues in the profession, such as Open Access for archaeological literature and the archaeological data-sharing are also analyzed.

The book is, in essence, a non-exhaustive revision of the relationship between Archeology and the Web, current problems, working models, experiences and possibilities for the future in terms of methodologies and tools. A guide for professionals involved in IT-related projects.

The book focuses on the Web as a tool for collaboration and dissemination of research. The subtitle itself describes the issue very clearly: *New approaches to Communication & Collaboration*.

In my opinion, I would appreciate a deeper approach to issues related to the archaeological record. Usually, technology-based approaches tend to focus on interpretation and dissemination, bypassing the archaeological record, which is the generator of huge primary mass of data.

However, what is interesting (keep in mind the year of publication; 2008), is the attention given by the book to applications and services like Flickr, Twitter, SlideShare, etc., which were not as widespread at the time of publication as they are nowadays.

In general, the authors are very interested in catalogs and repositories, which allow the publication of primary data from excavations, and strongly focused on the dissemination of archaeological information in academic environments.

Despite the large number of links provided (showing the 'public' character of the projects), we miss more concrete and applicable examples. Technologies are tools and should always be applicable. Certainly, the book itself is defined as an 'approachment', so we should not expect a high level of detail.

Especially interesting for us are some cases studies, such as the Goseck project. It is an integration of a traditional resource for data (forms) and multimedia registration, so that the user can participate in the archaeological process. The user can also learn about the daily work of archaeologists and see the first results of the excavation on the website. Communicating archaeology with interactive websites and live webcams can help us make archaeology understandable and interesting to the public.

The development of the Integrated Archaeological Database (IADB) is another remarkable example. This project began at the Scottish Urban Archaeological Trust in the 1990s and has continued in recent years at the York Archaeological Trust. The original concept of the IADB was to make digital versions of excavation records available as an easily accessible integrated resource for use in post-excavation analysis. Initially, the IADB dealt only with simple artifact records and stratigraphic unit or context records. Over time, the scope of the IADB has widened to include other digital resources, including plans,

photographs and stratigraphy diagrams. Technically, the IADB began as a desktop database and has developed into a Web-based user application.

Virtual communities are another focus point of the book. Bone Commons is an example of an online community created for building and sharing resources for zooarchaeology. It is an example of specialized online community, which enables us to review collections and search for animal bones. Today, these kinds of thematic communities are not widespread, despite their huge utility and potential.

Unfortunately, many of these project's websites are today closed or in hibernation, making it very difficult to know the degree of their success.

The book deals with the concept of Web 2.0, pointing out possibilities but without finding specific utilities. The fact is that Web 2.0 is based on collaboration and contents generated by the user, and this provided (don't forget, back in 2008) enormous potential.

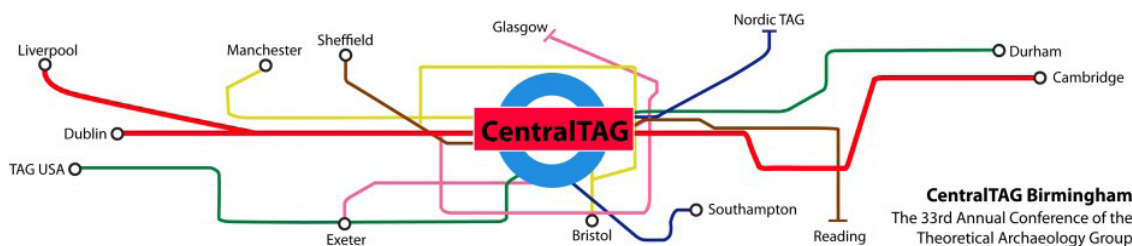
These possibilities today are fulfilled partially and unevenly. Facebook is a great tool for promoting and blogs are being widely used, but microblogging (for instance Twitter) has not found much resonance among archaeologists yet.

Virtual communities in archeology have great potential, but today are still little explored.

Despite all this, the text offers a comprehensive overview of possibilities. Some are not yet fulfilled, others have exceeded expectations and many of the problems still remain today.

In conclusion, I personally consider this book as a good starting point to predict what the IT approach in Archaeology will be in the coming years. But read it soon because, as far as technology is concerned, it will soon become outdated.

REVIEWS



Don HENSON
University of York

Dr. Web-Love:
or, how I learnt to stop worrying and love social media
Session at the 33rd TAG (Birmingham, 2011)

The TAG conference, held every December, is the highlight of the academic year in archaeology. It is where researchers can engage with the latest ideas and debates in archaeology. It is fitting, therefore, that two postgraduates, Lorna Richardson of University College London and Pat Hadley of York University, should choose to organise a session at TAG on the uses of social media in archaeology.

Archaeologists have always embraced new technologies. Archaeologists in the United Kingdom are increasingly engaging with the public through community archaeology and are beginning to use various digital technologies to help with this. Moreover, many are now realising that new social media allow archaeological communities to be formed, breaking down the barriers among different universities or different areas of expertise. The power of new technologies opens up new ways of working, thinking and interacting. Archaeology can become truly multivocal and decentralised in its structures and discourses. This is exciting and empowering, but also unsettling and off-putting to some. This session was held to address how social media is being used in archaeology, and some of the issues this raises.

Speakers came from a variety of places, not all were university researchers, and for some it was their first appearance at a major academic conference. All gave good, engaging and stimulating papers.

Doug Rocks-Macqueen (Edinburgh University) spoke about the complexities of using public social media in archaeology and the need to understand its psychological dimension. We need to understand not only the technology but also the psychology of using social media, and the way in which these can undermine or conflict with established power and organisational structures. Does social media have its own separate rules of conversation? Should we seek to employ specialist social media communicators rather than expect everyone to use social media as part of their work?

Andy Brockman (Mortimer website) focused on social media as a tool for activism in archaeology. The public face of social media ensures wide exposure, while its network of users can spread quickly and widely. Instantaneous communication can enable rapid responses to crises and issues. The Mortimer website arose out of dissatisfaction with the traditionally slow organisational response to cuts in funding for archaeology. Using social media for campaigning is in its early days, and is often misunderstood. Issues that have to be faced by campaigners include ensuring that the voices being projected are representative of wider constituency, and that the campaigning group does not simply become a narrow, self-perpetuating clique, talking among themselves and having little actual impact.

Morgana McCabe (Glasgow University) spoke for the group, including Jennifer Novotny and Rebecca Younger, who had created an online archaeology magazine, Love Archaeology. This had become unexpectedly popular, with visitors well away from the university and worldwide. They had to adapt to consumer demand on content and layout. They also had to confront the amount of time it was taking, time away from their postgraduate research. The Internet was allowing a new style of publishing for archaeology, based on an organically growing and adapting magazine model. They can also be highly topical and publish items in much shorter timescales than traditional journals. Readers of the magazine feel part of the Love Archaeology community, rather than simply visitors to a website, although this places more responsibility on the team behind the magazine to maintain it as a social space, not just as a publication.

Andy Burnham (Megalithic Portal) had set up his website as a non-archaeologist but someone who was interested in all kinds of Stone Age monuments. It was an Internet home for people with like interests and consisted largely of user-generated content. This is mostly images and information about stone-built sites from Britain and elsewhere. Many of these sites are burial or ritual sites and inevitably attract interest from people with non-rational ideas about their use. Although welcoming and respecting the views of all visitors and contributors, Andy is careful to challenge views that are not based on sound evidence and lead people towards a closer archaeological understanding of the monuments. The site is a good example of how the Internet allows the discussion about archaeology to be enlarged to include new audiences.

Pamela Jane Smith (Cambridge University), the wife of Thurstan Shaw, a pioneer of African archaeology, set up the Personal Histories project which is now run by students. The idea has been to capture on record, as oral histories, the experiences of people working in archaeology. The need to archive the personal recollections of archaeologists is an important adjunct to the ephemerality of the instant communications of social media. Pamela went through the process and logistics of recording oral histories, before asking volunteers from the audience to demonstrate the process. Lorna Richardson duly interviewed Don Henson for a short session reminiscing on his career in archaeology.

Pat Hadley (York University) introduced the idea of 'perpetual beta'. This is similar to the way in which Wikipedia works, where content is never fossilised in a final form, unlike traditional publication where the fixed, final edition is a desired end goal. Perpetual beta makes the most out of social media's flexibility and networking, to allow endless debate, discussion and contributions towards even more refined discourses about archaeology. This could be a more productive kind of archaeological output than traditional journals or books, and yet carries some risks. These include attributions of authorship and deliberate vandalism of content. Also, are most archaeologists even aware of the possibilities presented by social media software?

Stefano Costa and Francesco Ripanti, (Siena University, Italy), offered the view that modern excavation has become a form of theatre. They termed their work at the Roman mansio of Vignale as an excava(c)tion where the site is a stage on which the archaeologists are performers, entering into a continuous dialogue with the public who visit the site. There are on-site tours, on-line diaries and videos, and an on-line blog. Feedback from visitors to the site and the webpages

is welcomed and forms part of the excavation experience of the sites. People's responses to the site and their ideas about what they see become part of the narrative of the excavation. The site itself becomes a kind of social medium.

Lorna Richardson (University College London) spoke about the use of Twitter in archaeology, and presented interesting statistics, such as: 41% of Twitter account holders never make a tweet and 24% of people who do tweet have no followers. The best uses for tweeting seem to be maintaining informal networks and sharing of research. Tweeting took up a lot of time, and could too easily become a communication between self-selecting narrow cliques. The anonymity that is made possible by Twitter could be both an advantage and a problem if misused. If used as part of archaeology projects, then it needs to be part of a suite of social media, and not be relied upon as the main means of communication. Its best use may be as a specialist networking tool rather than for public engagement.

The papers were all engaging and stimulated good discussion. There is only space here to mention a few of the points raised. Social media allow multivocality with all its attendant risks of giving voice to unrepresentative or irrational views. They also have the potential to undermine traditional patterns of academic or professional authority, but will they introduce in their turn new patterns of authority? If more and more communication is being done by social media, is this all ephemeral and lost as soon as files are wiped from a hard drive? Are there implications for archiving the history of archaeology and of academic discourse? There is a lot of good use of social media now, and there was a need for some arena or means of sharing good practice and communicating ideas among its practitioners.

The session ended with a drop-in session, during which Lorna and Pat taught participants in a practical workshop how to set up social media accounts and use the software. This proved very popular, as did the whole session. There was genuine discussion and a lot of questions. The session could easily have gone on longer. I am sure there will be future sessions on a similar theme, to build upon the enthusiasm that this one engendered.

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REVIEWS



Daniel D. SAUCEDO-SEGAMI
SOKENDAI-PUCP

I International Symposium on Public Archaeology SOKENDAI-PUCP (SIAP 2011)

From September 23rd to 25th, the "I International Symposium on Public Archaeology SOKENDAI-PUCP (SIAP 2011)" was held in the Humanities Department Auditorium of the Pontifical Catholic University of Peru (PUCP), in Lima, Peru. The Symposium was a successful joint activity between SOKENDAI and PUCP, financed by the SOKENDAI Inter-school Cooperated Educational Project Expenditure (Education) for FY2011, with the participation of 25 speakers and a total attendance of 130 people.

Since Public Archaeology can be defined as a field that studies the outcome relationships that arise when archaeology goes beyond the academic world, it allows a multi-disciplinary discussion about the relationships between academics and the public. Having this definition as a main concept, twenty-five-minutes presentations were carried out by students and professionals from different disciplines (including archaeologists, lawyers, educators, conservation specialists, etc.) and countries (Japan, Peru and Colombia). These presentations were divided into three sessions: Archaeology and Media, Archaeology and Education, and Archaeology and Development Policies. Although the main concept of the Symposium gave us the possibility to arrange all the presentations into the field of Public Archaeology, this field is not fully developed in Latin America. In this sense, for many projects it was the first time that they had the opportunity to present the results of their interaction with the public in an academic common ground.

The keynote lectures were carried out by Prof. Yuji SEKI (Director of the Pacopampa Archaeological Project - SOKENDAI), Prof. Krzysztof MAKOWSKI (Director of the Lomas de Lurin Archaeological Project - PUCP) and Prof. Paloma CARCEDO (General Director for Cultural Heritage - Ministry of Culture of Peru), and gave an overview of the situation of archaeology in Peru and its relationship with the public.

Prof. Seki opened the discussion mentioning how, in the past few years, the situation of projects related to the public has changed. Compared to the 90s, nowadays it is more common to find such projects, and the relationship between tourism and heritage has changed from being considered a non-compatible activity with heritage protection, to a useful and necessary tool to achieve it. He also mentioned how the perspective of archaeologists contrasts with that of the public, in that most archaeologists in Peru still believe that local communities are "ignorant" about their Prehispanic past and, as specialists, it is their duty to teach them the correct "history". In order to really reach the public, archaeologists need to integrate the different voices and interpretations about the past with the academic position.

Prof. Makowski mentioned how archaeological heritage is still not a priority in the political system in Peru, and how, if there is an interest, it is based on the physical characteristics of that heritage -like a treasure- and not in the archaeological information provided or the landscape. For instance, he mentioned the different problems that his project -which included sites like Tablada de Lurin, Pueblo Viejo

and Pachacamac- faced when different interests arose for the use of archaeological sites and landscape. Moreover, the government hinders research because of its lack of support and bureaucratic system, among other problems. He made several suggestions to improve this situation, for instance that archaeological heritage management should leave political interests aside, and overcome the centralized and bureaucratic aspects of the government institutions in charge of it. In addition, research and specialization through postgraduate courses should be promoted through government grants. Scholars need to actively engage in interdisciplinary research. Archaeological heritage management should be organized through protocols, based on research experiences, and excavation reports should be peer-reviewed by making them available online, etc.

Prof. Carcedo made a presentation from the perspective of the Ministry of Culture. She mentioned the difficulties that the Ministry is facing after being established. The former National Institute of Culture had a very complex bureaucratic organization that is currently in the process of simplification. Additionally, the General Direction of Cultural Heritage needs to improve the logistics, salaries and work environment of their employees in order to level up the quality of service. She also mentioned that politics need to be left aside, especially when hiring new specialists and those specialists must be from diverse disciplines. New changes include a more fluid interaction between regional and central offices, agreements with private cultural institutions and enterprises, and reaching the general public through publications.

The session on Archaeology and Media was the first of its kind in Peru. In recent years, communication with the public has become a very important activity for archaeologists, but most of them lack the experience or skills to appropriately communicate the topics that may attract the public. The presentations of Cesar Sara and Maria Helena Tord showed how important it is to address the public with a simpler language, sometimes negotiating the topics that are more interesting for the general public rather than for archaeologists. Naotoshi Ichiki and Lucia Watson also showed us the possibility of presenting the whole of the archaeological information available to the public, allowing them to choose what is important to them through electronic catalogues.

Archaeology and Education are two professions strongly related for a long time, and there are many examples that can be found in the literature of Public Archaeology. The presentation of Alejandra Figueroa

introduced this topic, addressing its main concepts and problems. The presentations in this session can be divided into two categories; how archaeology is presented to the public by school and youth programs and by archaeological projects and museums. The presentations of Anny López Ponce de León, Isabel Collazos, Maria Fé Cordoba and Jose Luis Fuentes (Hatun Llaqta group) provided examples of school and youth programs. In each case, they showed us how archaeologists can directly interact with children so as to share with them the experience of archaeological research or the interest in protecting archaeological heritage. With reference to archaeological projects and museums, the experiences presented by Roberto Pimentel, Claudia Garcia, Gonzalo Rodriguez, Irela Vallejo, Lisette Acuña, Lourdes Castillo, Lucia Watson, Ulla Holmquist and Victor Curay showed us the various approaches that can be taken, as well as the problems and solutions that arise in establishing a relationship with education professionals.

The session on Archaeology and Development Policies also offered a wide variety of examples on the relationship between archaeologists and the local population. With a multidisciplinary approach, the presentation of Fabricio Valencia showed us how the legal concept of heritage has changed, and how many legal loopholes need to be fixed in order to protect heritage in a proper way. The experiences presented in this session on how to manage archaeological heritage and the relationship with local people showed that each situation should be faced individually, especially considering rural contexts (Alejandro Chu, Claudia Bastante, Maria Fe Córdoba, Nohemí Ortiz, Iván Ghezzi, Gabriela Freyre, Julio Rucabado, Brian Billman, Arturo Noel, and Solsiré Cusicanqui) and urban contexts (Luis Felipe Villacorta, Martin del Carpio, Pedro Espinoza, Lucia Watson). In some cases the focus was on making the information available to the public, while in others improving the quality of life was considered more necessary, depending on the population living around the archaeological sites.

The SIAP gave the opportunity to several specialists to present their work, showing their problems and solutions. It also allowed us to build an information network of colleagues with similar interests. At regional level, the SIAP showed that Latin America -Peru in particular- is becoming an area where academic research must be strongly tied to economic and social development, if we want to encourage the general public to get involved in heritage protection. This approach contrasts with the situation in developed countries, where the economic situation is usually better, giving the public better access to information and an

opportunity to criticize the work of archaeologists on an equal basis. Overall, it was a very productive meeting for all the participants and organizers. The report and videos will be available in the next issue of *Arkeos*, *Electronic Magazine of Archaeology PUCP*, scheduled for 2012.

<http://mileto.pucp.edu.pe/arkeos/>



Ponentes magistrales (arriba)
y una vista del auditorio (abajo)



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AP: Online Journal in Public Archaeology

Editor:

Jaime Almansa Sánchez

Email: almansasanchez@gmail.com

Assistant editor:

Elena Papagiannopoulou

Edited by:

JAS Arqueología S.L.U.

Website: www.jasarqueologia.es

Email: jasarqueologia@gmail.com

Address: Plaza de Arteijo 8, T-2, 28029 - Madrid (Spain)

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