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Abstract:

The Archaeology and Communication Research Network (ACRN) and Centre for Audio-Visual Study and Practice in Archaeology (CASPAR) held a workshop on May 16th 2011 at the Institute of Archaeology, University College London. This review covers the papers that were presented on the day, and are the author's memories of the content presented. This conference provided the chance for considered discussion of the state of digital engagement within the archaeological sector and how a strategic vision could be produced for the reuse and adaptation.

Archaeologists & the Digital: Towards Strategies of Engagement reviewed.

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On May 16th, the Institute of Archaeology (IOA) hosted an Archaeology and Communication Research Network (ACRN) and Centre for Audio-Visual Study and Practice in Archaeology (CASPAR) workshop organised by Chiara Bonacchi. This workshop presented the attendees with a variety of presentations dedicated to the digital realm, and how archaeologists can engage with their audiences. The event was filmed by Ken Nolan (IOA) and should be made available shortly as a series of podcasts, so that a wider audience can benefit from the day's discussions.

Smart phones and site interpretation: The Street Museum Application

First to speak in the morning session chaired by Don Henson (Honorary Director of CASPAR) was Meriel Jeater (Museum of London) with a paper presented on a set of applications (Museum of London 2011) (small computer software bundles) that could be used on recent mobile phones that contained a GPS chip. The first application presented was entitled "Street Museum" (a name that has been registered by the Museum of London (MOL) as a trademark) allows the user of the application to pin point their position and then via mobile internet, they can be served with content from the Museum's archive of pictures that relates to their present location.

The application was created by the 'Brothers and Sisters' digital agency¹, firstly on Apple's iPhone operating system as a native application during a 5 month cycle (the original concept created in January 2010, the full project specification delivered in February and the final product delivered in May 2010) at a discounted cost of £20,000 (they were told the actual cost would be £40,000 – 50,000.) Following the initial success of the iOS version, the MOL subsequently

¹[http:// www.brothersandsisters.co.uk](http://www.brothersandsisters.co.uk)

commissioned an Android application that was produced for an additional cost of £28,000. These applications definitely provide a model of engagement for the Museum and Cultural sector at large, but perhaps could have been delivered in a different and cheaper way, perhaps by employing different technologies or in house staff learning to develop (probably not an option for many institutions.)

Other applications are currently in development by the MOL; specifically a partnership with Nokia is producing an application entitled 'Soundtrack to London'² and this was shown with an example of the legendary Bob Marley and a Romanised version of Street Museum entitled 'Streetmuseum Londinium'³ (presented via a partnership with the History Channel). This application uses Roman re-enactors and green screen technology and then places them on a layer over current images. Many in the audience wondered why this Romanised London application was not just presented as a new layer on the original 'Streetmuseum' product.

The creation of dedicated personal mobile device based museum content does raise the issue of social exclusion for those without access to premium handsets. Are we now becoming divisive in the quest for keeping up with the latest innovation, whilst cutting staff and educational programmes? Even though the application and content are free, the user needs to bear the cost of buying the handset and paying for line rental and bandwidth to retrieve the enriched experience that the system provides.

Social media as a marketing tool at the British Museum

The second paper was due to be delivered by Lena Zimmer (British Museum Marketing Department), but unfortunately she was unable to attend. The paper was therefore delivered on her behalf and probably did not have everything that she had intended. This talk centred around the use of Social media platforms (Flickr⁴, Twitter⁵, Facebook⁶, YouTube⁷ and Wordpress⁸ blogging software) for the dissemination of propaganda or marketing messages about the British Museum (BM) and to facilitate dialogue between the institution and their digital audience (fans, friends or followers depending on the platform used).

The BM started to explore the concept of Social Media when refreshing the web presence in 2006, but the full on uptake of these facilities only began in January 2009 (Twitter) and April (Facebook). A re-launched Youtube channel came online in August 2010 and a blog came online in April 2010. Several departments

² <http://www.museumoflondon.org.uk/Explore-online/Apps/SoundtracktoLondon.htm>

³ <http://www.museumoflondon.org.uk/Explore-online/Apps/StreetmuseumLondinium.htm>

⁴ <http://flickr.com/britishmuseum>

⁵ <http://twitter.com/#!/britishmuseum>

⁶ <http://facebook.com/britishmuseum>

⁷ <http://youtube.com/britishmuseum>

⁸ <http://blog.britishmuseum.org>

within the BM have developed a web presence or identity of their own; for example the Department of Portable Antiquities and Treasure and the Samsung Digital Discovery Centre.) A recent study by the Arts Council England, MLA and Arts & Business (2010) has shown that 53% of the online population have used the Internet to engage with arts and culture in the past year. It also states that in particular Facebook:

'has become a major tool for discovering as well as sharing information about arts and culture, second only to organic search through Google and other search engines.'

The Museum's use of social media is closely allied to the Museum's strategy (The British Museum 2010), specifically 'to enhance access to the collection (engagement)' and 'to increase self-generated income through growth' and therefore the BM's use of social media allows for:

- A perceived increase in engagement and discussion around exhibitions and the collection with a world-wide audience
- Acting as a lever to drive income streams (for example exhibition tickets sales, event tickets, Friends Membership, donations, ecommerce sales via the BM Company, and Do & Co food and beverage sales)

The BM has a strategic target for growing their online audiences, for instance, by March 2012 there is an aim to have 200,000 Facebook fans (at present, 60% of these are female) and 100,000 Twitter followers. This paper also turned to cover the analysis of social media use by implementing some benchmarks across the cultural sector. This also follows the methodology employed in the Culture24⁹ cultural sector web metrics measurement project (Finnis, Chan & Clements 2011). These are:

- a matrix showing statistics from TweetLevel¹⁰ for influence, popularity, engagement and perceived trust and Klout¹¹ for other influence measures
- Audience advocacy (re-tweets, likes, shares.) On average the BM manages to achieve 11 retweets per tweet (measured between Oct 10 – Jan 11) and 158 Facebook likes and 12.2 comments (measured Aug 2010 – April 2011)
- Observation and close monitoring of social media sites for sentiment analysis of response

Learning: Connecting pupils, curriculum, and informal learning environments

The third paper in the morning session was presented by Theano Moussouri (IOA) on a collaborative project between the National Maritime Museum (NMM) and the IOA. This investigated mobile phone based learning exercise centred on

⁹ <http://www.culture24.org.uk/sector+info/about+us/art80724>

¹⁰ <http://tweetlevel.edelman.com>

¹¹ <http://klout.com>

the trans-Atlantic Slave trade of Black Africans and the educational outcomes that could be derived from assessing the exercises.

Moussouri explained that this project used the ookl¹² platform to deliver content and had a structured visitor study to work how well the project had engaged with the target audience. The study was based around social-constructivism principles and followed a three step model of qualitative research i.e. before, during and after the visit to the NMM and involved staff of the school, the children and the museum staff themselves.

Key elements in this process included the people, the content, the technology and the context in which all of these interacted. The overarching argument of this paper, and indeed the whole workshop, was that the relevancy of content was imperative; issues faced with the selection of the technology employed and with the people involved with the project, would also impose limits on the experimental nature and results provided in a study such as this.

The nature of archaeological communities and spatial data online

The second session moved onto archaeological digital engagement themes, with Chiara Bonacchi in the chair. First to speak, with a reprise from the CASPAR seminar series, was Andrew Bevan (IOA) and this was the first paper of the day to really delve into archaeological theory and it was littered with references to Asterix, Mortimer Wheeler, Fiske and agent based models. This paper also produced the first mention of the day for the 'Long Tail' (Andersen 2006) of digital engagement and it also covered the following key points:

1. Free and Open Source software (FOSS) versus vendor lock in
2. The concept of authoritative content/authorship
3. Monetisation of content
4. Game based theory or gamification of applications and websites
5. Agency (online and offline) – this is where Asterix (Wikipedia 2011) featured heavily with pictures for the individual, the household, institutions and artefacts
6. Relational models – covering lots of theory from Alan Fiske's work Online community building within social networks
7. The concept of open data and Open archaeological initiatives (specific mention was made to Open Archaeology¹³, Ordnance Survey opendata¹⁴, the Archaeological Data Service¹⁵ and the Open Knowledge Foundation¹⁶)
8. Geographical and neo-geographical concepts
9. Augmented reality experiences

¹² <http://www.ooklnet.com>

¹³ <http://iosa.it>

¹⁴ <http://www.ordnancesurvey.co.uk/oswebsite/products/os-opendata.html>

¹⁵ <http://archaeologydataservice.ac.uk/>

¹⁶ <http://okfn.org/>

Bevan's paper was in my eyes, the most challenging for the audience of those presented. It contained concepts and theory from archaeology and applied it to the digital world and produced much needed synthesis after the morning's papers.

Twitter and archaeology online

Lorna Richardson (UCL), presented on her research into the use of twitter and archaeological engagement online (Richardson 2011) in a paper entitled '*Twitter and archaeology online*'. This paper was split into several segments, with perhaps the most useful to many in the room, being an explanation of the social networking platform – Twitter. A straightforward overview was given, which encompassed:

- The genesis of the concepts behind Twitter, namely it was created for mobile phones and had a limit of 140 characters for message length
- How the @ syntax worked for replying to other users
- How hashtags (# syntax) came about to facilitate sharing
- How retweets (RT syntax) allows for passing information on from other users
- Basic usage statistics; 200 million accounts existed last month and 70% of traffic is now international¹⁷
- Where the peak usage seems to be in Europe taken from a recent visualisation posted by a company called 'eeve' (eeve 2011). For example, London is the most dominant spike for activity in Europe.

The paper's next segment went on to review a survey conducted into archaeologists and their use of Twitter. Visualisation and graphical analysis showed some interesting patterns relating to how people accessed twitter, the top words used in archaeology related tweets and two Wordle graphics for some basic text based analysis of responses – for example news and field work updates were the things that people wanted to see shared and research and networking the main uses of Twitter. The remaining section of the paper went on to discuss the problems academia now faces due to Twitter's change in terms of use (Watters 2011) for their system (their Applications Programming Interface - API). Academics are now faced with a financial barrier of to get access from an authorised reseller of data. To conclude, a call to arms was issued asking archaeologists present to consider using Twitter to facilitate archaeological engagement and her research. Overall, this paper provided a good overview of the state of micro blogging within the archaeological community and provided stimulus for several members of the audience to begin using the platform.

Wessex archaeology on the web

The third paper in the second session was presented by Tom Goskar (Wessex Archaeology) who presented on digital work in the commercial archaeology sector. Goskar's organisation is at the forefront of commercial archaeological

¹⁷ <https://twitter.com/#!/PeerIndex/status/64327979148382209>

work, employing nearly 200 people at 4 locations around Britain. It has a relatively high turnover of £7 million pounds and generates reams of web content and 'grey' literature. Goskar's considerable skills allow for synthesis of this huge resource and produce a visual and data driven website¹⁸ which engages around 12,000 people per month. Their website was originally produced to cope with the interest around the Amesbury Archer, which was discovered in 2002 and this served to highlight the benefit of pushing their really interesting work out digitally.

Goskar has moved on substantially since 2002, away from static HTML to sophisticated content management and blogging software packages and he uses the best open source software for the job; for example Drupal¹⁹ for the main site, WordPress²⁰ for blogs (14 in number) and Omeka²¹ for the forthcoming collections and publications data. Wessex Archaeology and Goskar in particular have fully embraced social media, creating podcasts (first in 2005) and used the photo sharing website Flickr to disseminate images²² (600,000 views since they started to use the platform). Like the Portable Antiquities Scheme, and an increasing number of archaeological organisations, images and other data are released under a Creative Commons licence, allowing people to freely reuse and produce derivatives. This has produced some interesting results, with images being incorporated in amusing pastiches for instance.

Goskar's work is definitely an exemplar in the field of Public Archaeology and digital engagement. His experiences, as demonstrated during the paper provide a model for commercial archaeology and community projects to engage in a compelling and rich dialogue with their audiences. Many could learn by imitating his approach to delivery.

Blogs and Wikipedia: New Frontiers for Archaeological Research?

Amara Thornton (UCL) delivered the first paper in the afternoon session (chaired by Tim Schadla-Hall, who kept a firm control of proceedings) exploring the interface between the often-belittled online encyclopaedia 'Wikipedia' and the realms of archaeological information. The Wikipedia platform holds a huge amount of archaeological and cultural data, and has recently seen community efforts to interact with the cultural sector to improve the accuracy of the content within its portals.

Thornton ran through the concept and history of Wikipedia and gave some statistical analysis of the most popular pages for their articles – from her research, the most popular archaeological linked article was for the Acropolis and she also showed how many views archaeological topic pages received and

¹⁸ <http://www.wessexarch.co.uk>

¹⁹ <http://drupal.org>

²⁰ <http://wordpress.org>

²¹ <http://omeka.org>

²² <http://flickr.com/wessexarchaeology>

how you could access the editing logs! There were a few misconceptions within this paper of the working of Wikipedia, but nothing serious that detracted from the subject matter at hand.

Thornton then went onto discuss the convergence of Wikipedia and Facebook – or ‘Wikipedia meets Facebook’ and she showed how people had befriended John Garstang (6 likes)²³ and Flinders Petrie (over 200 likes)²⁴. Thornton concluded her paper with a suggestion that a concentrated effort to increase reliability and the scope of archaeological wiki articles could be co-ordinated – something that has also been mooted on Twitter by various people.

This enrichment is actually in progress in various formats, for example the British Museum’s Wikipedian in Residence programme (Wyatt 2010) and the challenge that they set to enrich the Hoxne hoard²⁵ entry. Undoubtedly Wikipedia has a huge amount to offer in terms of archaeological engagement and needs some seeding from our community to produce an authoritative resource. Concerns abound about diluting authority of information by allowing anyone to edit the pages, but auditing can prevent misinformation being perpetuated and errors can be identified easily.

Open access and open data

Brian Hole (UCL) presented a challenging paper relating to open access and open data, concepts that are currently ‘hot’ topics in the cultural sector. Hole works on these concepts at the British Library and at Ubiquity Press, two places that are dedicated to making this transition happen and also practicable (he also referred to UCL’s own open access mandate, which many were unaware of). Hole discussed recent attempts to make access to data more accessible via the implementation of open licences and adoption of Digital Object Identifiers²⁶ (DOI) for catalogues, datasets, journals and archives. Many institutions now make use of the DOI system (for example this journal and the Archaeology Data Service). The concept behind the DOI, allows for an immutable identifier for a piece of work that can always be resolved across the digital landscape if for example a website’s URL changes.

Many in the audience were less than convinced by the arguments presented in this paper, and they also felt that the process was simplified too much for the data aspect, but that can probably be overcome. Hole’s argument and the implementation of the DOI concept, is rapidly gaining traction online and is becoming a more frequent fixture; this idea cannot be discounted.

Strategy games and engagement strategies

²³ <http://www.facebook.com/pages/John-Garstang/104051999631197>

²⁴ <http://www.facebook.com/pages/Flinders-Petrie/104075192962645>

²⁵ http://en.wikipedia.org/wiki/Hoxne_hoard

²⁶ <http://www.doi.org/>

The second paper in this tranche of the workshop was again a reprise of an earlier CASPAR seminar by Andrew Gardner (UCL) relating to the role of archaeology in computer (online and offline) strategy games as a means for archaeological engagement. Gardner ran through the development of games that have become fixtures in many people's lives; for example 'Age of Empires' and 'Civilisation'. Both of these games revolve around turn based role playing, with strategic decisions being made to advance through the immersive story that one creates by participating. Gardner amazed the audience with his statistical figures for the amount of time people spent playing these games and the huge financial numbers that the computer games industry turns over annually.

Gardner then went onto cover the historical integrity and accuracy of these role playing games, providing anecdotal evidence that involving historians and academics in game design (for example Niall Hammond) doesn't always lead to a successful product. Game designers often have to embellish or allow for subtle (or not so subtle) changes to historical events to provide an enjoyable gaming experience.

The most telling statement of Gardner's paper was that if they had been around when he was reading for his PhD, he would never have completed. These games are addictive and many people engage with archaeological interpretation daily by playing. They present an opportunity for archaeologists to engage with new audiences, and there is much scope for developing this aspect.

Archaeological TV channels online: An assessment of potential

The final paper was presented by Chiara Bonacchi (UCL), Charles Furneaux (Kaboom Film and Television) and Daniel Pett (BM) and discussed the potential for engagement provided by the use of archaeological television on traditional broadcast TV and web TV. Furneaux covered traditional archaeological programming from 2003 to the present by presenting some simple statistical analysis. For example in 2010, terrestrial TV showed 45 hours of archaeological based programmes, whereas in 2009 only 25 hours was broadcast and in 2003 185 hours was broadcast. He posited that there are currently two types of archaeological TV – presenter led and Time Team type shows and that the terrestrial broadcasters have suffered severely from the wide scale take up of multi-channel TV. One telling statistic he provided related to ITV's huge drop in market share of the viewing public, a decline of 31% from 1983 – 2011 (48% to 17% of all viewers). Furneaux concluded by suggesting that there is a huge opportunity for the take-up of narrow-casting rather than broadcasting via the Internet over the next couple of years.

Bonacchi then presented on archaeological web TV, specifically with regards to two Italian channels – Archeologia Viva TV²⁷ and Sperimentarea TV²⁸ and the

²⁷ <http://www.archeologiaviva.tv/>

²⁸ <http://www.sperimentarea.tv/>

Archaeology Channel²⁹. She covered the uptake of their websites and presented some interesting statistical analysis:

1. Archeologia Viva TV has a bounce rate of 0.5%
2. They have 177 videos available online in three categories – news and events, documentaries and conversational pieces
3. The page view level and number of visitors is low in comparison to many sites, but the users have high quality engagement! They stay for an average of 8 minutes
4. Visitors from 82 countries, but dominated by Italy

Pett then presented on institutional web TV channels, a concept that is now being explored in many national and local institutions as the technological and cost barriers to producing television content decline. Key points raised in this paper included the availability of low cost platforms and repositories for storing video content (YouTube and Vimeo for instance), that there is a high cost for learning how to produce high quality footage (filming, editing, presenting) and that there are many high quality small broadcasters producing web content (Tollan Films, Wessex Archaeology). There are now many institutions with exciting and rich broadcasting channels, for instance the lauded Art Babble³⁰ project from Indianapolis Museum (USA) and the V&A channel³¹; these are now becoming more common as organisations see the benefits of broadcast engagement.

To conclude, all these contributions in this paper showed that the most successful videos are shorter, with high production levels and have punchy and dynamic story telling. They aren't necessarily viewed heavily and those with the larger brand and bigger audience base often reap bigger benefits.

Discussion session

The discussion segment of the workshop was wide ranging and covered many of the topics presented. A short presentation on Reflectance Transformation Imaging (RTI) work being conducted on artefacts³² was given by Kathryn Piquette (UCL) and questions were raised over the continuation of CASPAR's activities and what people wanted to be discussed at a conference in 2012. Specifically of relevance to a wider audience than those present, was the perceived digital divide between those who can produce digital content and those that cannot and the urgent need for training to facilitate digital creative skills. This is something that can be seen internationally, with many faculties in America having boot camps for knowledge transfer and digital creative skills. Perhaps the biggest aspect of all this digital engagement dialogue is the need for institutional/organisational 'buy in' to the concept of digital engagement.

²⁹ <http://www.archaeologychannel.org/>

³⁰ <http://www.artbabble.org/>

³¹ <http://www.vam.ac.uk/channel/>

³² <http://reflectanceimaging.org/news/2010/ahrc-dedefi/#more-5>

Without thoroughly thinking through and working out how to implement your digital engagement strategies failure is just a short step away. Conversely, archaeologists should not be scared of failure with digital experiments; this sector is still relatively young and will develop rapidly. Another issue raised included the sustainability of creating these digital resources; you cannot place the burden of curation of your web presence on just one person's shoulders; something that is all too prevalent in this sector (for example Wessex Archaeology and the Portable Antiquities Scheme).

To conclude, this workshop provided a platform for discussing many cross-sectoral problems that crop up daily, allowed for frank discussion of the issues at hand when creating these resources and enlightened many on how digital strategies are being implemented outside their organisations.

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