Reproducing practice

written by Jeremy Huggett | 10/04/2015

One theme that came out of the recent CAA 2015 conference in Siena last week circled around the unstated issue of whether the role of digital technology was to support or substitute current (traditional) archaeological practice. This featured particularly strongly in the day-long session organised by James Taylor and Nicolò Dell'Unto, '*Towards a Theory of Practice in Applied Digital Field Methods*'.



Siena from the Torre del Mangia

For example, on one hand we heard from Mike Rains and Amanda Clark about experiments at the Silchester excavations, ranging from the use of digital pens, digital clipboards, and Kindles, eventually ending up with the most expensive option – iPads. In each case, the tool was being evaluated as a means of supporting existing practice, whether planning, section drawing, or context description. This wasn't without technical difficulties and implementation wasn't always welcomed, although they noted the 'digital native' effect beginning to impact on the acceptance of new technologies by those working onsite.

On the other hand, we heard of numerous examples of the application of image-based modelling (IBM) in excavation contexts, using structure-from-motion (SfM) to convert multiple overlapping photographic images of sites, surfaces, and features to generate point clouds representing the site in three-dimensions, onto which were draped the photographically-derived textures. The emphasis was on cheapness (low-cost digital cameras and, increasingly, UAVs), speed of data capture, and flexibility. Significantly, the 'theory of practice' in such case studies seemed largely concerned with the implementation of the technology, rather than considering the archaeological practice it sought to reproduce. Indeed, several proponents of IBM/SfM referred to the way in which these techniques made traditional practice obsolete. There was talk of the derived models enabling the three-dimensional re-excavation of the site, that they increased objectivity, replaced manual drawing and survey onsite, and enabled the viewer to return to the 'original' features long after their destruction in the field (so an interesting term to use in this context) in order to draw plans and sections from the orthorectified photos as required during the post-excavation process. There's no doubt the

outputs looked pretty impressive, even if the more cynical of us in the audience wondered about the accuracy, reliability, and validity of some of the claims behind them.

These kinds of claims did not go unchallenged by some contributors to the session. For instance, Colleen Morgan's presentation on '*The Death (and Afterlife) of Archaeological Photography*' drew attention to the shift to digital photography leading to a loss of authorship, authenticity, authority, craft, and quality, while at the same time creating new possibilities for engagement. Erik Kjellman and Anja Roth Nieme ('*Lens distortion: perspectives on reflexivity and interpretation in digital field archaeology. Case studies from Northern Norway*') spoke about the way in which digital excavation documentation using SfM resulted in high precision data but disempowered and disengaged archaeologists as a consequence of separating data collection and interpretation – separating digging and thinking – although the impression was that commercial imperatives made this increasingly inevitable. Similarly, Piraye Hacigüzeller ('*The Archaeological Process and its Progress in the Age of Digital Cartography: a View from Çatalhöyük*') argued that digital planning was about more than speed and access and might be regressive rather than progressive – for instance, the materiality of the physical creation of a permatrace plan leads to a different engagement with the object of record relative to the experience of its digital capture. The concluding paper by Sara Perry ('*Challenging the remit of applied digital field methods*') was one not to miss, which meant of course I missed it … fortunately she has recently blogged about it.

This has to have been one of the best CAA sessions in years – in some respects alarmingly deterministic and at times atheoretical, in other regards thought-provoking, philosophical, and challenging the trajectory of the technological turn of site recording. That this divide also to some extent mapped onto gender (as might be detected from the previous paragraph) is interesting, although given some of the audience contributions, perhaps coincidental. The contrast – between the development of a near-automated data capture and extraction pipeline versus a physical engagement which was supported digitally to a greater or lesser extent – was quite stark. The degree to which this was critiqued within the session was (in my experience of 30 years of CAA conferences) quite unique and hugely encouraging. Kudos to James and Nicolò as the chairs and organisers.

But, based on the evidence of this session, we cannot be far removed from a tipping point where digital site data capture could be routinely conducted remotely via the camera lens and processed even more remotely in time and space, replacing the time-consuming employment of drawing boards, measuring tapes, line levels, and most of the other paraphernalia found in a site supervisor's toolkit. As a consequence, more traditional means of recording will perhaps become limited to training excavations in an attempt to ensure that students understand the basic principles before they are exposed to the technological substitutes. Of course, this is a somewhat simplistic opposition – the digital substitution of old with new practices versus digital support for more traditional practices. Instead, if we recognise and capitalise on the fact that the different processes and procedures actually entail different levels of engagement and consequently create different types of information and levels of understanding, the complementarity of these techniques could yet have positive outcomes for field archaeology. At least we can be confident that the potentially transformative shift in site recording practices proposed by some is the subject of scrutiny by others, but talk of obsoleting practice is anachronistic when the outcomes are so evidently different.