Digital Co-production in Archaeology. An Editorial

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This special issue focuses on digitally-enabled co-production in archaeology, by bringing together papers that were presented at the session *Communication as Collaboration: Digital Methods, Experiences and Values*, organised at the 21st Annual Meeting of the European Association of Archaeologists (University of Glasgow, 2015). The session was part of the *Communicating Archaeology* thematic cluster, which was partly inspired by the first published volume dedicated specifically to the topic of digital public engagement in archaeology (Bonacchi 2012). In that session and in this collection, we have been exploring communication as the collaborative construction of materials and interpretations rather than the dissemination of content at given stages of the archaeological research process (Bonacchi and Moshenska 2015). We have aimed at building an initial critical mass of literature reflecting on participatory engagement with archaeology, its values, limitations and applicability by different social actors in a range of places and spaces, geo-political, social and cultural situations. By hosting case studies that were spontaneously offered in response to an invited call for papers, the issue allows the examination of the presence, or absence, meanings and outcomes of digital co-production in archaeology at an international level.

It has been now more than a decade since a primarily informational World Wide Web has started to become increasingly interactive and collaborative

(Bonacchi 2017), in line with the original vision of its inventor. Social media have permeated larger and larger pockets of contemporary society, providing new avenues for experimentation and innovation, while at the same time reinforcing many of the existing social inequalities that characterised the pre-digital world (e.g. Bonacchi 2012, 2017; Richardson 2013, 2014). Drawing on internet and information studies research, digital public archaeology has tried to understand how these inequalities form, and has helped to downplay the idea of intrinsically positive and socially progressive technological development. As a result of this work, there is now widespread acknowledgement that platforms and tools that could, from a functional point of view, facilitate cooperation and exchange, are instead often utilised to 'broadcast' messages of one type or another by organisations that are either fundamentally interested in retaining hierarchical internal and public-facing structures (Bevan 2012, Richardson 2014), or have limited capacity to support open philosophies (Beck and Neylon 2012, 479-80). Whatever the intent and no matter the resources, there will be exclusion. We are well aware of the variability of Internet usage, of the (still) relatively low number of people who resort to it for sharing or creating original content, and of the fact that certain demographics initiate or respond to specific types of digital engagement more than others (e.g. Bonacchi *et al*. 2015a, 2015b). Longer-term dynamics of injustice have also been pondered upon, such as, for example, the possibility that a social web culture based on collaboration and aimed at democratisation might in fact lead to undermining basic workers' rights (Perry and Beale 2015; Sheehan 2017; Williamson 2016).

Yet, we are here and the Internet will not disappear any time soon. Users are still increasing and new web platforms pop up continuously. The idea of 'prosumption' defined by Toffler at the beginning of the 1980s retains its currency (Toffler 1980), but, just as the mass media of that time, it has 'ecologically' adapted to a new media environment (Postman 1970). Twitter, to name but one example, is used as a direct medium of

communication by institutions and public *personae*. It has recently hosted public exchanges between the expertise of Mary Beard, the political influence of Arron Banks, and many citizens who have participated in the *querelle* around the supposed 'fall of the Roman Empire' for reasons related to immigration (Bank's thesis) and a similar destiny *foreseen by the politician for the European Union* (Banks 2016a, 2016b, 2016c). Never more than now, while constantly morphing, digital co-production remains topical. There is a need to go back to practice-based approaches in order to *then* re-think theory, rather than indulge in detached academic critique. Through an array of case studies and empirical evidence, this collection intends to examine how we steer both innovation and the present and futures of digital co-production in archaeology. Articles cover co-production mediated via new digital media including crowdfunding, social networking sites, blogs and virtual reality. The social actors also vary, comprising citizens working inside and outside commercial units, archaeological sites or museums, heritage-focused public bodies or higher education.

Despite the international (European) level of the conference in Glasgow, the majority of the presentations revolved around projects developed in the UK and Sweden. Certainly, the institutional affiliation of the two co-organisers and editors did play a role in shaping this pattern, but cannot be identified as the sole cause for it. We believe that the impact of recent policy changes concerning research funding and arts and culture more generally in those countries may be an additional reason. The UK in particular has witnessed a documented trend towards greater 'partnering' that started in the mid 20th century, gaining momentum during the years of the Blair Labour government and the subsequent Coalition-based and Conservative administrations (2010 to present) (Bonacchi and Willock 2016; Doeser 2015). In this context, collaborations have often been identified as means of generating social value(s), and securing resources and resilience for the higher education and cultural sectors, also

in step with ideas of the Big Society. In Sweden, digital archaeology projects have been nurtured primarily by funding policies that have targeted the development of digital technologies over aspects of community involvement. But over the last few years, the Swedish National Heritage Board has started to design funding calls to support both digital archaeology and community engagement. Nevertheless, it should be noted that the focus has remained primarily on allocating public money for the digitisation of cultural resources, and the creation of digital experiences (Swedish National Heritage Board 2016, 18).

The six articles in this issue deal with non-pre-planned forms of online co-production of knowledge, co-creation of value and place-making through digital engagement with archaeological sites and their interpretations, and the assessment of digital co-production in archaeology. The papers by Zuanni and Gruber relate to the collaborative generation of archaeological knowledge through interactions with information shared and circulated online, and with emphasis on the issue of 'virality'. Chiara Zuanni contemplates the roles of 'unintended' collaborations, whereby non-institutional partners have been contributing to shape the interpretation of the phenomenon of an Egyptian statue housed in the Manchester Museum and seemingly moving on its own accord. Zuanni argues for museum professionals' need to 'listen' more closely to the voices of these collaborators, and uses data science approaches in order to develop a fuller understanding of online audiences. Gruber explores a similar case to the one discussed by Zuanni in a Swedish context. He examines the extent to which social media enables contract archaeologists to interact with the public, and as a result of selecting sensationalised information, highlights the agency that journalists retain in determining the kind of narrative that becomes viral.

Both Papmehl-Dufay and Söderström and Duffy and Popple concentrate on the co-production of interpretations of archaeological sites, prioritising physically local communities as partners but not excluding international

ones. Papmehl-Dufay and Söderström present a case study where crowdfunding and other forms of digital engagement were used to raise awareness of the Iron Age ring fort of Sandy borg in Sweden. The authors consider the impact of the digital divide on the crowdfunding initiative and the importance of integrating it with offline methods to collect donations. Papmehl-Dufay and Söderström argue for the need to bear audience diversity in mind and to design public engagement programmes entailing digital *and* analogue components. Equally focused on the local community, Duffy and Popple bring us back to the UK to discuss participatory storytelling on the Isle of Bute, and flag the tension between some people's desire to share their own views and ideas and others preferring to just rely on experts' interpretations. Issues of upskilling and empowerment via digital media in a remote and rural Scottish territory are also explored.

The final two pieces offer two opposed approaches to understanding and assessing values of digitally-enabled co-production. Magali Ljungar-Chapelon's work addresses how artistic, archaeological and technological skills and research can be combined to engage audiences during a museum visit. The technique of motion capture is used to encourage visitors' physical involvement in a procession depicted on stone slabs in a Bronze Age grave setting. The ambition is not to make people feel as if they are part of a funeral procession, but rather to have them travel into a virtual world using their own body as the medium (Ljungar-Chapelon 2017). Ljungar-Chapelon calls this method *actor-spectator virtual reality* (Ljungar-Chapelon 2008) and evaluates its use in a museum context. On the other hand, The final two pieces offer two opposed approaches to understanding and assessing values of digitally-enabled co-production. Richardson and Dixon reject any evaluative framework of their Public Archaeology 2015 project, and present this initiative in their article. They highlight how the purpose of the project was to enable public archaeology as being intrinsically valuable in itself

and to avoid limiting its definition alongside that of terms such as public, engagement and audiences. In doing so, the authors argue that we move towards a more democratic kind of archaeology that bridges the divisions between top-down and bottom-up styles, a characteristic typical of co-production.

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