## Introduction

The internet has become an important part in how communities are defined, created and maintained. This was true even prior to the 2020 outbreak of Covid-19, communities that were created and affirmed in the digital space were already common, and existing communities (*i.e.* those which were created through in-person interactions) continue to increasingly use the digital space to maintain those connections. However, the global pandemic and the resulting isolation, both on an international and individual scale, has highlighted the crucial nature of online communication for all aspects of society — economic, social, academic, political, *etc*.

While the internet is a useful tool to create and maintain community ties, many communities and individuals remain technologically disenfranchised. Accessibility, both in digital and physical spaces, is a complex term that is too often allowed to remain amorphous and vague. Lack of access to computers, the effects of geographic location and infrastructure on internet connectivity and lack of digital skills are all common causes of exclusion from web-based communities.<sup>1</sup> However, they are far from the only means of exclusion and communities and individuals who are not afforded this digital access are often also excluded from archaeological discussions and engagement, frequently for many of the same reasons.

Community archaeology seeks to address these exclusions and include and empower voices of those who would otherwise be unheard or silenced. The digital space has the potential to act as a platform for that inclusion and democratic knowledge production. Information sharing via public posting or by more private methods such as email are the primary modes of interaction, inter- and intra-communally, and this information sharing potential is often seen within academia as an effective way of bringing research results to the general public. However, this type of broadcasting of research is primarily unidirectional in its methods, meaning that instead of fostering new interactions, it is a new tool in an old framework — academics and traditional holders of authority are still maintaining their positions as gatekeepers and creators of archaeological knowledge.<sup>2</sup> Even so, within digital communities, these spaces have a potential to stimulate distinct, bottom-up, community-based discussions and considerations on the past, the present and the future as well as examine elements of shared and distinct identities.<sup>3</sup>

For this aspect of my research, I am using Elizabeth Bollwerk's "Digital Engagement Spectrum" as a framework.<sup>4</sup> As demonstrated in the image below, this is a spectrum, like those of public and community archaeology discussed in the literature review, it is not proscriptive or quantitative, but instead is attempting to demonstrate the variety of methods possible on a sliding scale. She has defined four distinct types of digital engagement and their purposes, while acknowledging that there are projects and methodologies that may fall between categories or into multiple categories, simultaneously. Within this scale, Bollwerk also highlights the difference in audience focus. She defines the two ends of the audience spectrum as being crowds and communities. Monitors and creators of digital content will not

<sup>&</sup>lt;sup>1</sup> Lorna Richardson, "A Digital Public Archaeology?" *Papers from the Institute of Archaeology* 23, no.1 (2013): 5.

<sup>&</sup>lt;sup>2</sup> Neil Silberman and Margaret Purser, "Collective Memory as Affirmation: People-Centred Heritage in a Digital Age," in *Heritage and Social Media: Understanding Heritage in a Participatory Culture*, ed. Elisa Giaccardi (London: Routledge, 2012), 19.

<sup>&</sup>lt;sup>3</sup> Silberman and Purser, "Collective Memory as Affirmation," 16, 26.

<sup>&</sup>lt;sup>4</sup> Elizabeth Bollwerk, "Co-Creation's Role in Digital Public Archaeology," *Advances in Archaeological Practice* 3, no.3 (2015): 226.

necessarily be familiar with individuals in a crowd, and crowds are usually larger and without a uniting characteristic or interest. In contrast, communities are normally smaller, often self-identifying and usually with specific interests. If a project is trying to engage a community or create one around a resource (digital or physical), they are much more likely to be personally familiar with users, but this also likely means that the content will reach fewer individual users.<sup>5</sup>

For this poster, I give examples of community-based projects that fall into each of Bollwerk's four categories. These examples are not meant to be representative of the categories, but rather to give depth to the model and demonstrate the variety of ways in which community-based projects may utilise digital spaces.

#### 1. Publicity

Many definitions of publicity emphasise marketing and spreading knowledge of a person, event or product. For archaeology and cultural heritage more broadly, the digital form of publicity can take place on social media, in newsletters, on websites, as well as in more academic settings like journals and conferences. In these contexts the "product" being marketed is archaeology itself, or archaeological knowledge. These methods are considered uni-directional, because despite the appearance of democratic discourse on this possible on social media for example, archaeologists still use their traditional credentials and metrics to demonstrate their own authority and thus these conversations still mimic traditional top-down models of knowledge dissemination.

An example of this digital broadcasting comes from the The Troodos Archaeological and Environmental Survey Project or TAESP. TAESP was conducted from 2000 to 2004 in the northern foothills of the Troodos Mountains in central Cyprus. The findings were published in 2013 and were wide-ranging, examining the interaction between humans and the natural environment from the Neolithic to the present, using archaeological, anthropological and geomorphological techniques.<sup>6</sup> While these findings were published in a traditional printed monograph format, the raw data was also published in a database that is available for free online.<sup>7</sup>

#### 2. Participatory

Crowdsourcing is perhaps the most common form of interaction to fall under Bollwerk's "participatory" category. It is usually focused on data collection, as opposed to interpretation, and tends to draw individuals with some prior interest in archaeological, historical or museum content. A wider user base, created through an activity such as crowdsourcing, can make data collection, organisation and analysis practices more transparent. It can also increase awareness of a project, but "the structure of the relationships

<sup>&</sup>lt;sup>5</sup> Bollwerk, "Co-Creation," 229.

<sup>&</sup>lt;sup>6</sup> Bernard A. Knapp, Jay Noller, Luke Sollars, Michael Given, and Vasiliki Kassianidou, *Landscape and Interaction: The Troodos archaeological and environmental survey project, Cyprus, Vols. 1/2* (London: Oxbow, 2013).

<sup>&</sup>lt;sup>7</sup> Michael Given, Hugh Corley and Luke Sollars, "Joining the Dots: Continuous Survey, Routine Practice and the Interpretation of a Cypriot Landscape," *Internet Archaeology* 20 (2007); "About Internet Archaeology," Archaeology Data Service, accessed 18 January 2021, https://archaeologydataservice.ac.uk/about/intarch.xhtml

between researchers and participants still follows [a] traditional model of the specialist teaching the enthusiast or amateur."8

Crowdsourcing can take many forms and have varying degrees of engagement. Compare a crowdsourced 3D model of Soloi's amphitheater for example, located in the occupied territories of Cyprus.<sup>9</sup> This 3D model was created from images sourced from social media, specifically drone footage that had been posted to YouTube. This is one example of new data being generated from archaeological material that is inaccessible — whether this is due to political reasons such as at Soloi or natural ones — using non-specialist data collection.

Compare this more passive engagement through social media with the MicroPasts project which is a free, open source, crowdsourcing platform with the intention of acting as a platform for archaeology, history and other cultural heritage related projects.<sup>10</sup> Each crowdsourcing task on the MicroPasts platform is undertaken by multiple participants and then consolidated by a "traditional researcher," but the raw data, which was generated by the participants as well as the data verified by the traditional researcher, is released on the website, using a Creative Commons license.<sup>11</sup>

MicroPasts represents a more hands-on approach to crowdsourcing, than the Soloi project. Instead of mining social media, MicroPasts actively engages the public in the creation of data sets. This variety within a single category within Bollwerk's model demonstrates the breadth of practices and the creativity that can be applied to engagement.

## 3. Collaborative

In her chapter entitled simply "Community Archaeology," Yvonne Marshall points out that there is a difference between an archaeological project where the nonacademic/professional community is involved at every level and a project that is commissioned and paid for by a community.<sup>12</sup> Bollwerk makes the same distinction when defining this category, "collaborative," and the following "co-creative" category, stating that community members in a collaborative project are consulted in the development of higherlevel goals and project design, but that the archaeologist still maintains the power of ultimate decision making.<sup>13</sup> It is important to mention that a value judgement is not being placed on these different categories, the choice to use a collaborative or co-creative approach can be influenced by the needs, interests, capabilities and unique goals of the community and archaeologist equally and that choice does not indicate that something is "more" or "less" community archaeology.

Nikitari 'Telling the Story of Home' is a StoryMap associated with the Pathways to Heritage: Community Heritage and the Archaeology of Movement in the Adelphi Forest, Cyprus

<sup>&</sup>lt;sup>8</sup> Bollwerk, "Co-Creation," 227.

<sup>&</sup>lt;sup>9</sup> Kyriacos Themistocleous, "Model reconstruction for 3d visualization of cultural heritage sites using open data from social media: The case study of Soli, Cyprus," Journal of Archaeological Science Reports 14 (August 2016): 774–781.

<sup>&</sup>lt;sup>10</sup> "About," MicroPasts, accessed 16 January 2021, https://crowdsourced.micropasts.org/about.

<sup>&</sup>lt;sup>11</sup> Bonacci, et al, "Participation in Heritage Crowdsourcing," 169; "Prehistory Projects," MicroPasts, accessed 16 January, https://crowdsourced.micropasts.org/project/category/prehistory/.

<sup>&</sup>lt;sup>12</sup> Yvonne Marshall, "Community Archaeology," in Oxford Handbook of Archaeology, eds. Barry Cunliffe, Chris Gosden, Rosemary A. Joyce (Oxford: Oxford University Press, 2009), 1085.

<sup>&</sup>lt;sup>13</sup> Bollwerk, "Co-Creation," 227.

(PATH), which was funded by the Horizons 2020 EU research grant.<sup>14</sup> Dr. Erin Gibson (Glasgow University) was the primary investigator and the website went live in 2019. Nikitari is a village in the Nicosia district of Cyprus, on the edge of the Adelphi State Forest and the project used a variety of methods to investigate the attachment of Nikitari residents to the abandoned village of Asinou, which lies within the forest boundaries.

#### 4. Co-Creative

So we come to the final category. Co-Creative projects are those where community members are involved in all aspects of the creation and dissemination of design and implementation.

Neil Faulkner says that, "Archaeology from below is not just about making heritage creation an active process [...] belonging to the people whose past it is[, but] achieving a truly scientific discipline where active knowledge creation replaces standardised data collection, where material, method and meaning interpenetrate in dialectical tension."<sup>15</sup> In a digital context, that "dialectical tension" occurs as the content and data is being organized and used, while attempting to cater to the needs of different communities, who in turn use their own experiences and worldviews to categorize, to organize and to interact with the material.<sup>16</sup> Cocreative projects cannot rely on traditional archaeological frameworks of organisation and interpretation, because the likelihood that these will suit all stakeholders are slim. Instead, according to Bollwerk, a co-creative project will provide communities with ways to create their own organisation and data management schemes, as well as pursuing the bottom-up model described by Faulkner in terms of the creation of said data.

You will notice — I do not have an example for this category and that is in part because of Cyprus' archaeological tradition. Cyprus does not have the long history of community engagement that we see in Great Britain and Ireland for example, where there are many local historical and archaeological societies some of which can date their founding to the nineteenth century. Similarly it has not had the same reclamation of archaeological narratives that have been embodied in American and Australian indigenous archaeology movements.

However, archaeology never occurs in a vacuum, so while methodologies surrounding community work are beginning to emerge — projects such as that at Athienou-Malloura, sponsored by Davidson College — has had long standing ties with the local community in which it works, creating a symbiotic relationship that benefits the residents and the archaeologists in equal measure. In this way the archaeologists are engaging in community work in a natural and organic way, demonstrating their commitment to the community through actions that go beyond archaeological practice.

## Conclusion

All digital interactions — wherever they fall on Bollwerk's scale — face difficulties, not dissimilar to those faced by in-person interactions. As with in-person interactions,

<sup>&</sup>lt;sup>14</sup> StoryMap is part of the ArcGIS software package, provided by ESRI; European Commission, "Periodic Reporting for period 1 - PATH (Pathways to Heritage: Community heritage and the archaeology of movement in the Adelphi Forest, Cyprus)," accessed 11 November 2020,

https://cordis.europa.eu/project/id/657370/reporting

<sup>&</sup>lt;sup>15</sup> Neil Faulkner, "Archaeology from Below," *Public Archaeology* 1, no. 1 (2000), 21.

<sup>&</sup>lt;sup>16</sup> Bollwerk, "Co-creation," 228.

accessibility is a major issue. And expanding availability is hindered by lack of physical access (in this case through lack of access to appropriate software and hardware) as well as digital capabilities and interest levels.

No technological development is going to, of its own accord, create equity and inclusion. Without conscious and deliberate consideration and effort by the people and organisations behind the screens, these advancements do little to further equitable archaeological practice. It requires more than just building new gadgets and platforms, it requires sustained, active work and the flexibility to adjust as the needs of the community shifts. These digital creations can act as tools of community archaeology, but cannot create a co-creative, democratic, community-oriented project on their own. The individuals and organisations behind them, have to mobilize themselves towards these goals as well. Just like archaeology, technology does not exist in a vacuum, it needs to be integrated into a larger praxis that considers questions such as accessible for who, inclusive of whom, and in what way?

How we choose to address these questions is paramount to the continuation of archaeology as a discipline and, perhaps more importantly, to the quality of life we can help provide for our fellow humans.

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