

Department of Archaeology

York researchers use storytelling and immersive technologies to connect us to our past, present and future

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The EU-funded EMOTIVE Project demonstrates its outcomes at a public event at Glasgow's Hunterian Museum on 30 October



The highly emotional nature of cultural heritage and archaeological sites is the focus of a unique event being held at the Hunterian Museum at the University of Glasgow on Wednesday 30 October 2019. A group of 10 researchers from Archaeology at the University of York, including lecturers, research associates, current students and alumni, will join other academics and specialists from the cultural and creative industries to showcase the tools and experiences they have created at the final public demonstration of the [EMOTIVE](#) project.

Funded through the European Union's Horizon 2020 programme, the EMOTIVE project allows users to explore current human values, identities and belief systems through the power of chatbots, Virtual Reality and Augmented Reality technologies and related forms of digital storytelling.

EMOTIVE aims to develop emotional experiences for visitors at cultural heritage sites, in particular the UNESCO World Heritage sites of Çatalhöyük in Turkey and the Antonine Wall and the related Roman Frontier display at The Hunterian in Glasgow, Scotland.

Experts in digital cultural heritage from the University of York have been working over the last three years with industry and research partners from across Europe (Greece, Italy, France, Ireland, and the University of Glasgow in the UK) to design powerful and emotionally engaging cultural experiences that resonate with people's lives today.

Dr Sara Perry, Senior Lecturer in Cultural Heritage Management, representing the EMOTIVE user-centred design team, said: "EMOTIVE has opened our eyes to how we can use the distant past as the springboard for deep discussions about the present and future. Traditionally we've relied almost entirely on illustration, writing and up-to-the-minute visualisation technologies to help us create compelling visions of prehistory.

"But what EMOTIVE has done is flip the model around, demonstrating that these technologies can be used as facilitators of human-to-human conversations about the past, leading to complex understandings of who we are today and how we choose to act upon the world in years to come."

York-based team associated with the EMOTIVE project has created experiences which can be used both on-site, off-site, as well as online, including:

A group VR experience, conceived by York MSc in Digital Heritage student Kristen O'Connor and PhD graduate Dr Meghan Dennis: for 2 users, who are virtually transported to Çatalhöyük (Turkey) where they explore social practices once common at Çatalhöyük, from artistic expression of group identity to home repair and burial customs. The experience invites participants to reflect upon human relatedness across time and space, and to think more deeply about our impact on the world.

A digital education kit, spearheaded by York MSc in Digital Heritage alumna Sierra McKinney, and grounded in research by MSc in Digital Heritage alumna Sophia Mirashrafi: Through the use of 3D-printed replicas of real artefacts, a virtual tour of reconstructed houses, a ChatBot, and an interactive

activity, young people experience what egalitarianism is, how it is reflected in the archaeology, and what it might have meant to live in an egalitarian community.

Bots of conviction, spearheaded by York MSc in Digital Heritage alumna Angeliki Tzouganatou and Sierra McKinney: designed as provocative conversational agents for use by both single individuals and groups. These are simple rules-based chatbots whose communicative design works to foster in users challenging – but productive – forms of dialogue and reflection. They enable heritage sites to launch into conversations on complex topics (e.g. death, wealth, gender equality, privacy) and, ultimately, to solicit specific pro-social actions from the users they converse with.

Family and group dialogues with 3D moulds, spearheaded by York MSc in Digital Heritage student Charlotte Bishop and supported and facilitated by researcher Dr Veysel Apaydin: These short sessions for families and groups focus on making replicas of ancient material objects and sparking critical conversation about the relationship between past artefacts and present-day values related to sharing.

Visitor-led tours for the York Minster, spearheaded by York MA in Cultural Heritage Management alumna Katrina Gargett: Using participatory methods of storytelling and facilitation, groups of 6 to 8 visitors to the UK's York Minster are aided by both digital devices and a human facilitator to learn about the cathedral. Framed through stories of the Minster's past, visitors enter into a dialogue about contemporary issues from mental health to immigration and beyond.

Audio-enhanced models, spearheaded by York MSc in Digital Heritage student Emmeline Batchelor: Young people (reading level 9-10 years old) in groups of up to five participants listen to simple sound compilations and aim to connect these to the fragmented archaeological remains visible on a 3D model. Dialogue is prompted between participants via guiding questions delivered through the EMOTIVE app.

The creative and unexpected uses of digital technologies in EMOTIVE allow wide public audiences to not only immerse themselves in this history, but also critically question issues of identity and what makes us who we are, both in the past and today.

[Sophia Mirashrafi](#), an MSc in Digital Heritage graduate from York and now Digital Project Officer at Historic Environment Scotland, notes "I was a part of the preliminary creation and implementation of a collaborative experience to take place at Çatalhöyük in conjunction with the EMOTIVE team as a Masters student at York. In the context of my work in the project, I felt that digital technologies often work best as a tool or facilitator in an experience, rather than the main focus, with too many muddying the waters in an overall visitor experience. Overall, EMOTIVE's vision of international collaboration and emphasis on storytelling in the heritage sphere was exemplary, aspects of which should be considered best practice in projects such as these moving forward."

[Maria Economou](#), Professor in Digital Cultural Heritage and Hunterian Curator at the University of Glasgow, said: "The EMOTIVE project has been very successful at demonstrating how digital technology, when used thoughtfully, can bring down barriers in engaging with our heritage and culture. Immersive technologies can be truly impactful when combined with storytelling and social interaction to encourage discussion amongst users.

"Cross-border collaboration on the EMOTIVE project would have been impossible without European Union funding and I think that EMOTIVE has shown how working with international partners can create an exciting, new and unique approach to accessing and enjoying heritage and history."

The EMOTIVE demo event will provide an excellent opportunity not only to see the results of innovative digital heritage research, but also for experts from across the globe to share ideas on the future of digital interpretation.

