

EMOTIVE

Storytelling for cultural heritage



TABLE OF CONTENTS

3 About

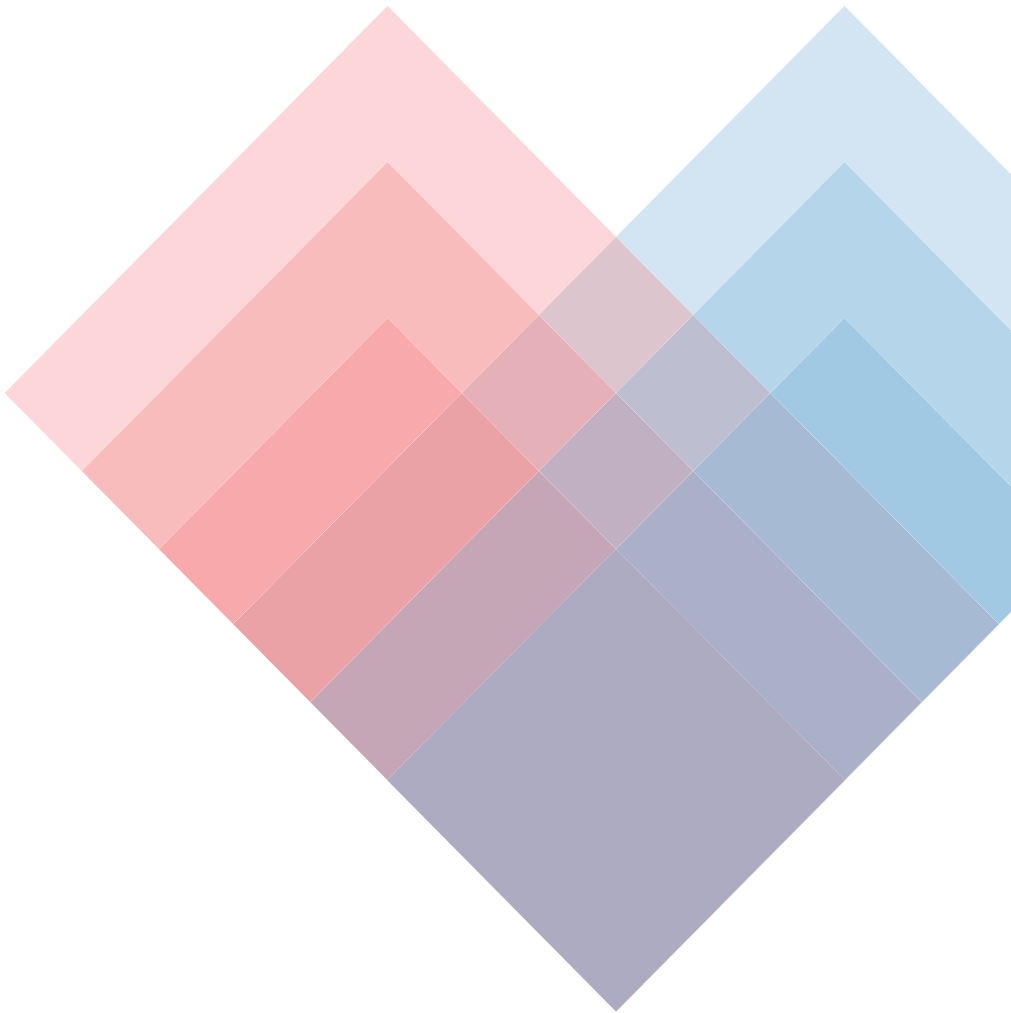
4 Tools

- 5 Create interactive storytelling experiences for mobile devices
- 6 Bring your experiences online
- 7 Create immersive virtual experiences
- 8 Bring objects to life

10 Experiences

- 11 EMOTIVE mixed reality digital storytelling: Onsite experience
- 12 EMOTIVE mixed reality digital storytelling: Onsite facilitator-led experience
- 13 EMOTIVE mixed reality digital storytelling: Online Virtual experience
- 14 EMOTIVE VR Experience
- 15 EMOTIVE Digital Education Kit
- 17 EMOTIVE Bots of Conviction
- 18 EMOTIVE Family and Group Dialogues with 3D moulds
- 19 EMOTIVE's Visitor-led Tours

20 Partners



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ABOUT

EMOTIVE is a EU-funded research project that works from the premise that cultural sites are highly emotional places. That regardless of age, location or state of preservation, they are seed-beds not just of knowledge, but of emotional resonance and human connection. From 2016-2019, the EMOTIVE consortium has researched, designed, developed and evaluated methods and tools that can support the cultural

and creative industries in creating narratives and experiences which draw on the power of “emotive storytelling”. The output of this process is a number of prototype tools and applications for heritage professionals and visitors that produce interactive, personalized, emotionally resonant digital experiences for museums and cultural sites.



TOOLS

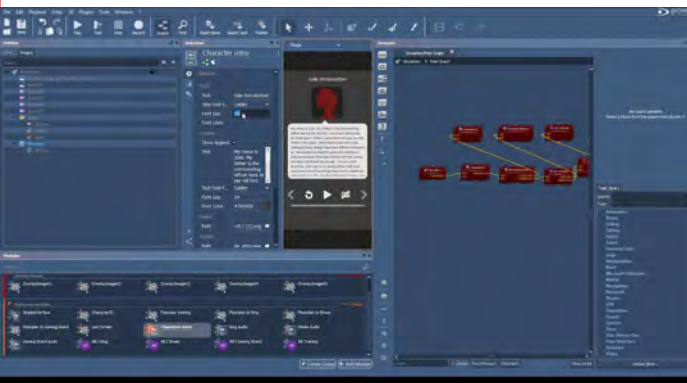
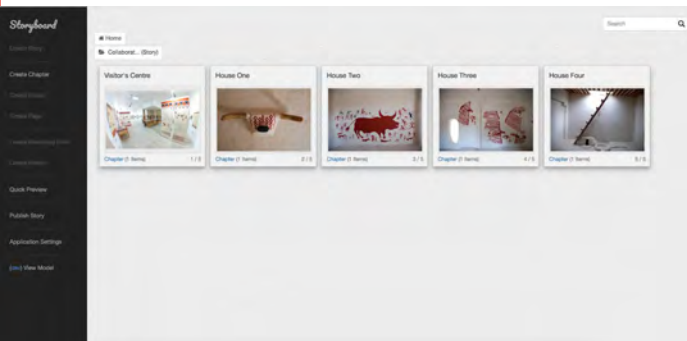
EMOTIVE offers a wide set of tools that support the creation and publication of a variety of experiences for on-site and remote visitors.

Create interactive storytelling experiences for mobile devices

With the **EMOTIVE Authoring Tools**, creators and cultural heritage experts are empowered to collaborate and create interactive storytelling experiences for museums or cultural sites. Visitors can then download these experiences on their smartphone and are encouraged through immersive narratives to engage more meaningfully and deeply at different stages of their visit.

By supporting several author roles with varying technical expertise, the EMOTIVE Authoring Tools can be used to produce any type of on-site experience, from simple text-based presentations to advanced multi-user AR games. The **Storyboard Editor** enables story writers to quickly set up and test prototypes and simple experiences without much effort or technical expertise, based on the

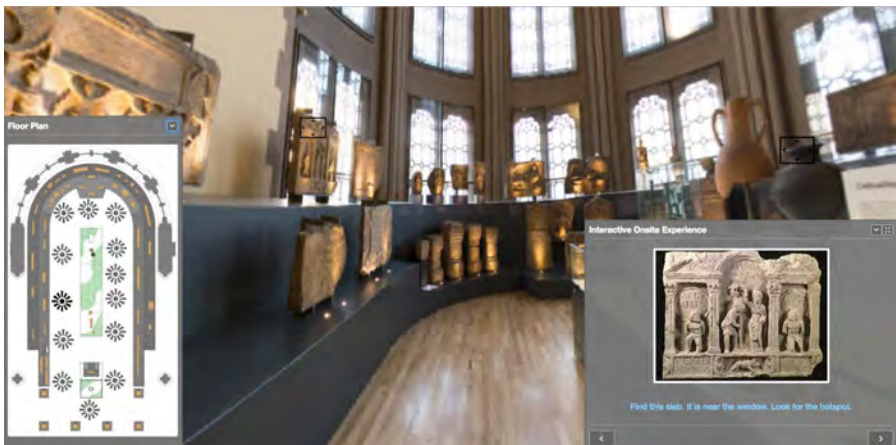
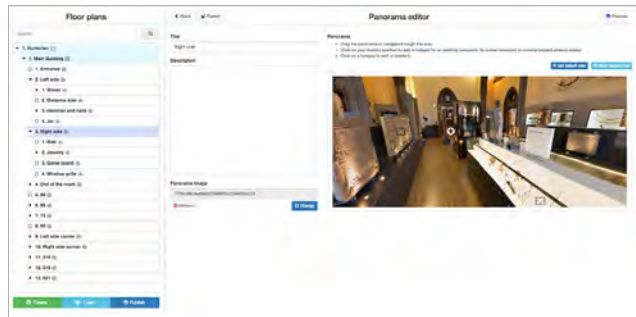
well-known storyboard paradigm. At the next level, the **Visual Scenario Editor** enables authors to define complex storylines and design diverse experiences for both single users and groups. Using visual programming, it allows authors without programming skills to create advanced experiences reusing ready-to-use modules. The visual programming paradigm empowers creators with programming skills to implement these features much quicker than they would have been able to do using manual coding.



Bring your experiences online

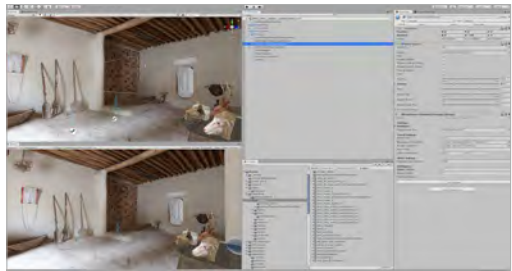
EMOTIVE experiences made for mobile devices can be easily converted for online use, transported to an easy-to-build 360° virtual space. The **Floor Plan Editor** enables cultural heritage professionals to create virtual representations of their sites by merging 360° photographs and publishing them on

a web environment. These virtual spaces are then viewable through EMOTIVE's **Web Experiencing System** and are combined with the storytelling originally made to be used on-site, thus bringing the same experience off-site.



Create immersive virtual experiences

Off-site experiences can be brought to the next level with our **Mixed Reality Plugin for Unity**. Utilising advanced Image-Based Rendering (IBR) techniques, developers are able to use typical 2D photography to turn a real space into a fully immersive virtual environment.

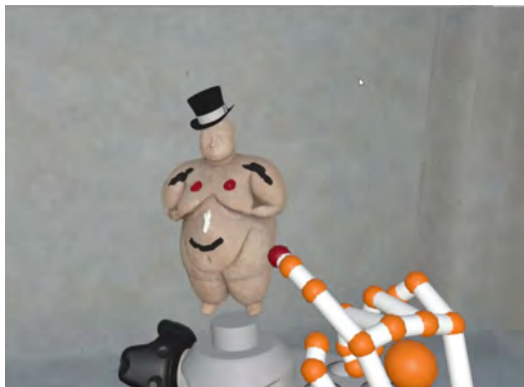


Bring objects to life

Emotional engagement with the past becomes much more intense when we are able to touch historical objects, see their colours and feel their texture. EMOTIVE provides tools that enable cultural heritage creators and visitors to **cast their own replicas of historical artefacts**.



Additionally, with the help of the EMOTIVE's **Object Tracking Plugin for Unity**, these objects can be brought back to their original state through a Virtual Reality headset, enabling the visitor to interact, and even playfully engage with the replica, using a responsive tangible user-interface.





EMOTIVE's cultural partner: Çatalhöyük

EXPERIENCES

EMOTIVE mixed reality digital storytelling: Onsite experience

'Ebutius's Dilemma' is an interactive character-driven exploration of "The Antonine Wall: Rome's Final Frontier" display developed for the Hunterian Museum at the University of Glasgow. It was initially designed using the Storyboard Editor and then transferred to the Visual Scenario Editor where more advanced features were added, like manipulation of 3D models enabling visitors to view hidden details of the objects on display. It tells the story of a Roman centurion who left his mark on the Antonine Wall in Scotland, the Roman Empire's most northerly frontier and part of a Unesco World Heritage Site. While exploring this experience in pairs or on their own, users in the museum discover objects related to different strands of the story which have emotional

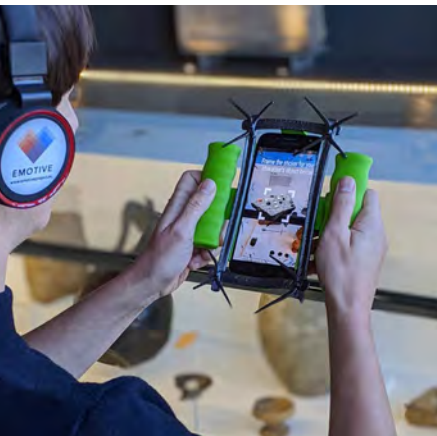
relevance to Ebutius. The story also resonates with today's visitors by using universal themes that transcend time, like love, family, and work.



EMOTIVE mixed reality digital storytelling: Onsite facilitator-led experience

'Views on Verecunda's Life: A Digital Window to the Scottish Roman Past' is a multi-part experience which combines immersive VR and AR features to contextualise the objects on display. It integrates social interaction, designed for four concurrent users who are encouraged by a facilitator to work together to critically examine the past. It aims to challenge stereotypes about life in the Frontiers of the Roman Empire, and link with users' life today through exploring issues of identity, in the past and today. The experience focuses on the story of a local Caledonian slave girl, Verecunda, who worked at the Roman commander's house in Bar Hill fort, one of the

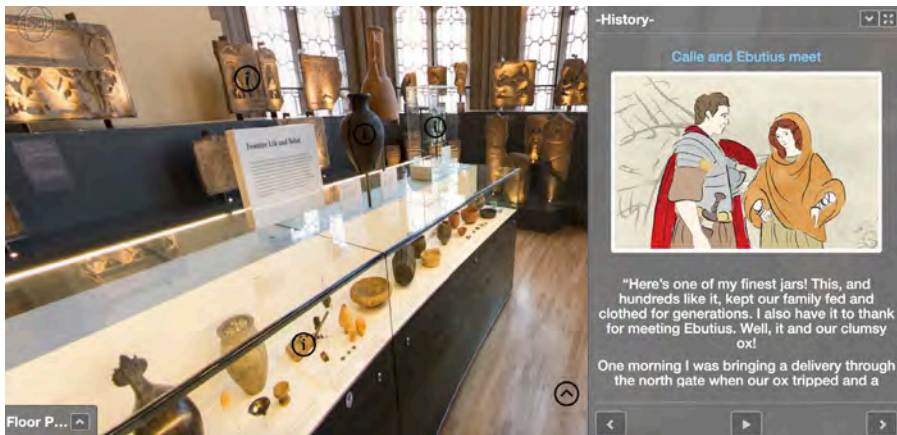
Antonine Wall sites. After getting to know each other, users are immersed in a VR environment introducing Verecunda's life in the Bar Hill fort. It introduces four lively characters who knew Verecunda at different stages of her life. Users then move through the museum display guided by one of the four characters (developed with the Visual Scenario Editor). They are encouraged to explore real objects viewing these through mobile phones that act like 'magic windows', with Augmented Reality interactions bringing the objects and their role to life. Finally, users share what they have discovered about Verecunda and discuss what shaped her identity.



EMOTIVE mixed reality digital storytelling: Online Virtual experience

A virtual version of 'Ebutius's Dilemma' was also designed for remote online visitors, recreating the museum space with a 360° panorama using the Floor Plan Editor and the Web Experiencing System. This retained the story-based approach, which allows online users to choose their own path through the experience while they navigate their way through the virtual representation of the display to locate objects pertinent to the story. The experience allows both a) remote users from around the world to access the

story and get a feel of visiting the gallery virtually, as well as b) visitors who have used the on-site version of 'Ebutius's Dilemma' to access this virtual one after they have left the museum, or to use it in preparation for their visit, making it a powerful visitor engagement and learning tool.



EMOTIVE VR Experience

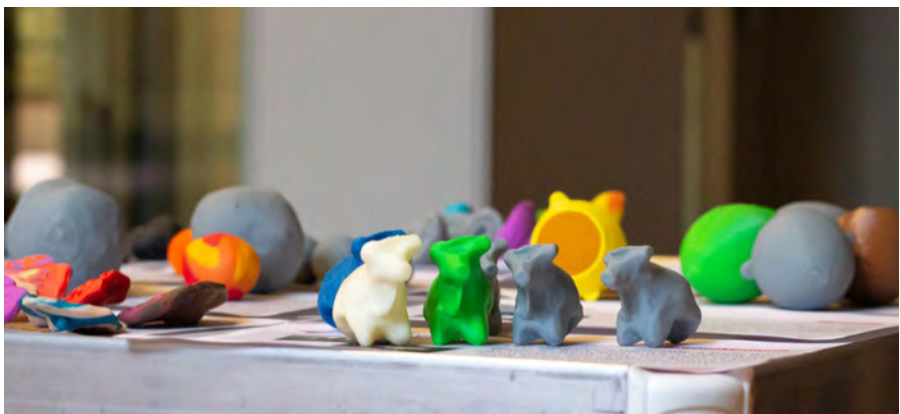
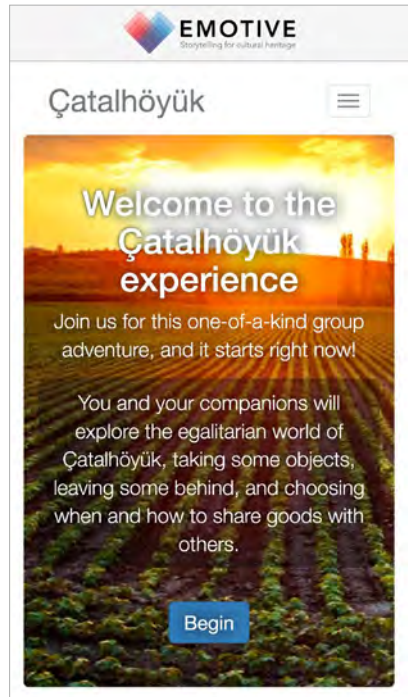
Through a multi-user virtual reality experience, participants are taken on a collaborative adventure through the UNESCO Neolithic site of Çatalhöyük. This experience fosters interaction and emotional learning between pairs of individuals who are tasked with enacting forms of care. Together, participants engage with some of the 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.



EMOTIVE Digital Education Kit

The Exploration of Egalitarianism Digital Education Kit explores the Stone Age site of Çatalhöyük and its egalitarian society. Through the use of 3D-printed replicas of real artefacts, a virtual tour of reconstructed houses, a ChatBot, and an interactive activity, students experience what egalitarianism is, how it is reflected in the archaeology, and what it might have meant to live in an egalitarian community. This Kit is designed for use by Key Stage 3 students (ages 11-14), but can successfully engage young people who are anywhere between the ages of 8-16.



EMOTIVE Bots of Conviction

Can a chatbot enable us to change our conceptions, to be critically reflective? EMOTIVE's 'bots of conviction', ChatCat and Bo (which are accompanied by our 'How-to Guide' for building chatbots), are designed as provocative bots 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.



EMOTIVE Family and Group Dialogues with 3D moulds

These short sessions for families and groups focus on making replicas of ancient material objects and, through engagement with tactile technologies, sparking critical conversation about the relationship between past artefacts and present-day values. The sessions start with the creation of objects using novel 3D moulding tools ('MetaMoulds'). Groups make their objects together using modelling clay,

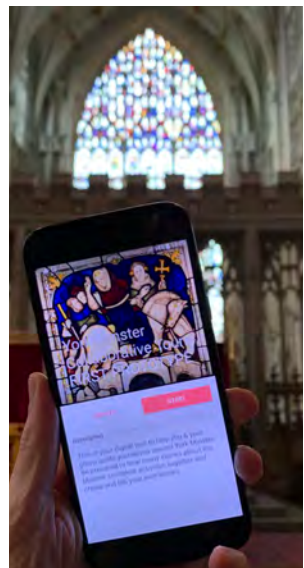
personalise them, and then venture into dialogue with a human facilitator who guides discussion between participants. The past has much to tell us about how we live today and how we could live differently in the future. We explore these ideas in 20-minute sessions - and participants can take home their replicas, carrying on the conversation into the future!



EMOTIVE's Visitor-led Tours

EMOTIVE's visitor-led tours aim to challenge the traditional guided tour's model of one-way, guide-visitor communication. Instead, they use the guided tour as a platform for meaningful democratic dialogue between people of different backgrounds and beliefs. Designed for York Minster, one of the largest gothic cathedrals in Northern Europe attracting over 600,000 visitors per year, groups of 6-8 strangers are encouraged to debate contemporary issues framed through stories about the Minster's past. Aided by digital devices and a human facilitator, participants

are first tasked to read aloud the story of the Minster to one another before being asked to choose a 'theme', e.g. 'love', 'health', 'pilgrimage'. Their chosen theme leads them to an area of the building where they collectively discover a story about the Minster's past and then perform group-based storytelling, using objects around the building and their devices. The activities are enjoyable, yet provocative, moderated by facilitated dialogue which challenges prejudices, breaks down barriers and fosters mutual respect between participants.





THE ANTONINE WALL ROME'S FINAL FRONTIER

The gallery reflects the fragility of one of the most important cultural monuments in Scotland and Europe which has preserved some of the most significant evidence from Roman Britain. The remaining fragments of wall and other structures are the last physical link to the Roman frontier. The remaining site is unique in the British Isles. Through The Antonine Wall exhibition the public can see the last link to the Roman frontier.

The building of the Wall is an extraordinary feat of engineering. It was built by the Romans as a defensive wall to protect the Roman province of Britain from the Picts. The Antonine Wall is a UNESCO World Heritage Site.

The Roman Wall along the Firth of Forth is a UNESCO World Heritage Site. It is the only Roman wall in Scotland and is the only Roman wall in the British Isles.

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The National Archives of the Republic of Ireland
The National Archives of the United Kingdom

EMOTIVE's cultural partner: 'The Antonine Wall: Rome's Final Frontier' Display at the Hunterian Museum, University of Glasgow

PARTNERS



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