

# Active Learning Protects Heritage and Archaeology (ALPHA)

Alan M. Greaves | University of Liverpool

Veysel Apaydin | University College London, Institute of Education

**A**LPHA is a three-year heritage conservation project that develops, pilots and evaluates Open Educational Resources (OER) in Turkish primary schools. In previous years, the ALPHA project focused on developing problem-solving, logic, communication and motor acuity (Year One) and developing Global Citizenship (Year Two). In the third and final year of our longitudinal study of how awareness of heritage conservation can be embedded in the mainstream primary curriculum in Türkiye, we focused on combining heritage awareness with the STEM (Science, Technology, Engineering & Maths) subjects that form part of the core of that curriculum. All schools need to teach STEM subjects, and by developing ready-to-use materials that provide stimulating classroom activities for teachers that are built on archaeological materials, the subject of heritage is introduced at an early age and then maintained across three years of the child's primary education.

We focus on the 8–10 age group, before the pressure of exams squeezes creative co-curricular activities out of the classroom, and train teachers, mostly online, to deliver the OER interventions and build their confidence in leading classroom discussions about heritage conservation and Türkiye's national history from prehistory to the present. History is a contested subject in many countries, and our non-directional approach allows each student to construct their own understanding of it without the politicised narratives that can be found in some textbooks on the subject (Apaydin 2016). Following the training and classroom delivery of the learning activities, we then ask teachers to evaluate the OER materials before we edit and publish them, and gather their views on how the activities were received by children and how the class worked together as a group.

ALPHA therefore addresses three key issues that have dogged research into the effectiveness of heritage education interventions:

*Lack of Consistent Evaluation Data.* To date, there has been little systematic data-gathering on the effectiveness of heritage education programmes, and individual ad hoc outreach events connected to archaeological excavations have had limited impact (Apaydin 2018). In 2023, we began one-to-one interviews with selected teachers to balance the quantitative evaluation data with qualitative insights into how the introduction of active learning methods and heritage themes changes the classroom dynamics. These data form the basis of a series of articles in peer-reviewed journals that will provide an evidence base for the wider adoption of active-learning-based heritage education interventions in Türkiye and beyond.



Children working together on an ALPHA classroom activity.

*Social Inclusion.* ALPHA aims to decrease social and economic inequalities that exist within heritage education (including digital inequalities) by developing open access learning resources in the form of single A4 photocopyable worksheets and open-access videos and other resources that can easily be reproduced in any school, community or home environment. We select as our partners schools in socio-economically deprived districts that fall into one of the following three target categories: isolated rural communities, poor urban areas, or communities that have seen a significant influx of Syrian refugees.

*Transferability.* Although a national strategy for heritage education in Turkey is now emerging (for example, required visits to historical/archaeological sites of interest), our research shows that teachers are wary of teaching historical subjects, which are inherently political in Türkiye (Greaves et al. 2023a; 2023b). Nor has there been any validated research into the best pedagogical models by which to deliver heritage education, especially in the complex and increasingly mixed cultural environments teachers encounter in the modern classroom in Türkiye. Our Open Educational Resources (OER) and Continuing Professional Development (CPD) resources for primary school teachers are based on existing elements of the core primary curriculum but use heritage and archaeological examples to deliver them,

providing enriching classroom activities that promote not just heritage conservation but also generic educational outcomes to marginalised groups within Turkish society.

Cross-curricular learning is content-rich, stimulating, and allows students to see the real-world application of their learning. By using professionally developed STEM teaching materials and ready-made lesson plans we hope that our OER will be appealing to busy teachers with large classes who are under pressure to deliver science and maths. The archaeological content connects with previous years' OER materials and creates the sustained exposure to heritage throughout the early primary years that is so often lacking but leads to deeper learning and embedded understanding of heritage.

The Year Three Open Educational Resources focus on two classroom activities:

*Mediterranean Climate and Water Conservation.* A five-minute documentary video explains the water cycle and intermittent rainfall patterns in the Mediterranean. This leads into an examination of how Roman houses used the *impluvium* to capture and store rainwater under their central courtyard. Class worksheets will help children calculate the volume of water cisterns, facilitate class discussions about conserving water, and more.

*Ancient Aqueducts and Eco-Friendly Cities.* Using the example of Patara, a video explains how ancient aqueducts worked and how valuable water was used to maximum effect in fountains, bathhouses and public toilets. Classroom activities will include understanding the engineering behind an arch, slopes and gradients, and so on.



An example of the ALPHA games, which give children an idea of the geographical spread and age of heritage across the whole of Türkiye.



Teachers often use the ALPHA games as a starting point for creative classroom activities, such as independent study projects, classroom museum displays, and heritage-themed TV shows (pictured).

Our final publication will use interview data from teachers who delivered the OER in refugee camps and schools with a high proportion of Syrian children. For example, one of our participant teachers has 13 Syrian children in a class of 26 and found the discussion of heritage helped students explore areas of common identity, something that we had already demonstrated in our pilot project in Fethiye (Greaves 2023a; 2023b).

## References

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