Gamification and Storytelling for Architectural History and Cultural Heritage Awareness

* Dr. **Muzaffer Özgüleş**
Alanya HEP University, Faculty of Architecture, Antalya, Turkey
E-mail: muzafferozgules@gmail.com

Abstract
Many people, even architecture students, fail to connect with the multi-layered city they live in and with its past. Most inhabitants of such "palimpsest*" cities usually live as if the current built environment has always existed throughout the history, failing to see the light that the buildings of different periods shed for their own age and their importance for us. When the reflections of the culture, which has been transmitted through generations and diversified by being fed from different sources, cannot be distinguished on various buildings, the architectural heritage of the cities can be overlooked, and might be consciously or unconsciously destroyed. Unfortunately, present architectural history or cultural heritage conservation courses do not help to adequately establish a healthy relationship between residents and the city or the cultural site that needs to be protected.
In order to fill this important gap, we have recently proposed an EU project and this paper presents the objectives, partners, methodology and prospective implementations of the project, namely "Palimpsest Cities", which aims to create an alternative, innovative, interdisciplinary curriculum of a new course supported with gamification and storytelling techniques. This course will especially be designed for architecture students, and the project also aims to test this approach by various implementations in partner universities, as well as through collaborations with local governments and professional organizations. By doing so, it aims to deliver the content of this innovative course to whole residents of the city from children to elderly, with a special emphasis on social inclusion of disadvantaged groups. Likewise, this paper and its presentation will be an important opportunity to disseminate the project before its kick-off and contribute to essential network our project is seeking for.
 Keywords: Architectural history, cultural heritage, gamification, storytelling.

1. Introduction

Since I moved to Alanya in September 2021, I visited the historical buildings of the city many times with great pleasure, and many others which are trying to survive with difficulty and sadness. (Figure 1) However, I was very surprised when I learnt that most of my students at the faculty of architecture have not visited the historic sites in Alanya, although they were living in the city for several years. Okay, as I am an architectural historian, I may have been fascinated by the extraordinary architectural heritage of this city I have just moved to. But my students are studying architecture and they have been living here for years.

Is it just them? Unfortunately, this is not only the case for students of architecture, but also for the whole public. Few people in the city know the history, layers, values and stories of the places they live in. Especially the underrepresented ones; the disabled, refugees or lower-income groups; they even do not have the chance to see them. For this reason, it is not surprising that some of the buildings have been abandoned and the values of the well-off are not known except for the scenery they offer. Therefore, it is essential to *truly* become aware of the architectural heritage of our cities. If we want to achieve this, we need to change our education system first. And it is necessary to realize this with a completely new, innovative and creative teaching methodology; not by adding traditional, inefficient courses based on memorization to the existing architecture curriculum, which is even alienating students from history and architectural heritage studies (Thompson, 2017).

Moreover, the protection of our architectural and cultural heritage should start from the bottom, not from top, and the only way to protect Europe's and the whole world's historic and multi-layered cities is to make everyone embrace their cities through getting familiar with them, knowing them and above all meeting them. Therefore, we designed Palimpsest Cities project as a higher education project since most of the project team is from academia; but we particularly aim to work hard to make the outputs of the project reach every single member of the society by providing necessary adaptations to disseminate the results to anyone, not only to our architecture students.

Accordingly, this paper presents this new EU project that promise to trigger the awareness of cultural heritage starting from local scale to international scale by creating and implementing a new course equipped with innovative methodologies including gamification and storytelling, and by putting learners/people at the centre. Although the

---

* a manuscript or piece of writing material on which later writing has been superimposed; something reused or altered but still bearing visible traces of its earlier form. (Oxford Languages Dictionary)

project has not been funded yet, this paper aims to share the methodology of the project, disseminate it to the public before its kick-off and contribute to essential network the project is seeking for.

Figure 1. Monastery on the Cilvarda Point, Alanya, in a ruinous state (photo by author).

2. Palimpsest Cities Project at a Glance

The project entitled "Palimpsest Cities: Gamification and Storytelling for Architectural History and Cultural Heritage Awareness" was submitted on 23 March 2022 for Erasmus+ KA220 HED grants, with the project ID: 2022-1-TR01-KA220-HED-000089912. This "Cooperation partnerships in higher education" project is developed in collaboration with Mimar Sinan Fine Arts Univesity (MSGSU) from Istanbul, Turkey; Center for Education and Innovation (InnovED) from Volos, Greece; and Asociatia De-a Arhitectura (DAA) from Bucharest, Romania; under the coordination of Alanya Hamdullah Emin Paşa University (AHEP) from Antalya, Turkey.

The primary aim of the project is creating architectural history and cultural heritage awareness, especially for multilayered cities, by establishing bonds with city's past and its inhabitants through innovative, hybrid, learner-based approaches, by particularly using techniques of gamification and digital storytelling. By implementing it, we want to change the mindsets of our students as well as the whole public starting from the underrepresented groups, in an effective and sustainable way.

We will firstly design a new course called "Palimpsest Cities" on architectural history and cultural heritage conservation, by applying novel education approaches, especially by keeping in mind how learners have changed recently by putting emphasis on game-based learning (Prensky, 2001) and keep up with the "digital natives" (Prensky, 2012), with the complementing skills of the partners. Then, we will make implementations at our universities and for local groups, targeted particularly to youth and children. We will test the success of this approach with qualitative and quantitative evaluations to improve the quality of the course and provide a guide for future adaptations.

By realizing this project, we expect to have significant improvement in architectural and cultural heritage awareness, stronger bonds with the city for everyone, and better protection of our built environment. We also believe that this project and its implementations would open a new path both in architectural education and heritage conservation, with its original, interdisciplinary approach putting learners into an active role, and create strong synergies in academia, NGOs and local bodies with its inclusive character.

3. Project Activities

This two-year project will be composed of two phases, each lasting one year. In the first phase, the curriculum for a new course (ARCH 4XX-Palimpsest Cities) on architectural history and cultural heritage awareness for multi-layered cities will be designed. The second phase, devoted to testing the new curriculum with test lectures & local implementations and evaluation of the impact of this new approach, will took places in the second year together with all other dissemination activities.

The first phase of the project will start with the literature review, to learn about the most recent, innovative approaches of education. Then, the rest of the first year will be devoted to the design of the modules of the new course and each partner will be responsible for their leading modules and work in collaboration with other partners. Below modules will also be the sub-phases of the first year of the project:

Timeline Travel: This module will create new timelines for the multiple layers of the prototype cities, Alanya and Istanbul, on the Timeline Travel mobile app (Özgüleş, 2020). This app was designed for architectural history, as the last output of a previous Erasmus+ project entitled "Timeline Travel: An Alternative Tool for Architectural History Learning and Teaching", and the positive effect of usage of Timeline Travel in architectural history courses was previously demonstrated. (Özgüleş, et. al, 2020) Therefore, this module is anticipated to be the backbone and essential component of this new project.

Digital Storytelling: This module will be synthesised with a linear narrative approach, aiming to have students as story-tellers in order to capitalise and trigger their interest and correlation to specific points in their cities that deserve undivided attention. The elements of story-telling will be combined to result in a series of videos, which will be created and edited by students as well.

Gamification: Virtual and face-to-face workshops will be carried out among project partners to learn how to gamify a lecture or the whole course content. After these workshops, a suitable gamification method will be chosen to be applied during implementations.

City on Trial: This activity is based on the personification of the city and will use debate club method. The idea is to have the two confronting teams building arguments connected to how a city, in time, could satisfy the needs of its inhabitants.

Tunnel Book: This unique and sculptural book form will be the output of this module. The construction of a big model of the city using tunnel book technique will be carried out by students again, but during the design phase, elements and layers of this book (i.e. different periods of a city) will be determined.

Apart from these activities, one opening and one closing lecture video will be prepared as a part of the design phase of the course. These videos will be shot in historic centres of Alanya and Istanbul as the introduction and conclusion of the proposed course, which could be used by anyone wishing to adapt this course to their curriculum. Also, in line with this purpose, an online guide will be created for instructors to prepare a similar course for other multi-layered cities with user-friendly instructions to modify it to their target groups' needs.

The second phase of the project will be based on testing this new course at partner universities with test lectures towards architecture students as well as further implementations at local level adapted to other target groups. These test lectures and local implementations will be realized in such a way that feedback collected from them will be used to improve the quality of the newly designed curriculum. Therefore, the second year of the project could also be seen as testing, evaluating and improving phase of the main outputs of the project.

Therefore, in the beginning of the second year, test groups and evaluation methods to be used during tests will be determined, measurement tools for implementations will be specified and pre-test & end-test questions will be prepared, in such a way that they would allow researchers to benefit from the feedback from the end users. Then, the first test lectures will take place at architecture departments of AHEP and MSGSU, with the students who are registered to the new course ARCH4XX-Palimpsest Cities at these universities in the 2023-2024 academic year's fall semester. These courses will be dedicated to palimpsest cities Alanya and Istanbul and the test lectures will be equipped with field trips in Alanya and Istanbul, respectively.

Parallel to these test lectures, other partners, namely DAA and InnovED, will conduct implementations in Bucharest and Volos, respectively, particularly towards children and other underrepresented groups. These implementations will also form an example for adaptations of this new course to different needs and different target groups. These implementations will mainly follow the outline of the Palimpsest Cities course, but they will be composed of selected modules only, with necessary changes in accordance with the group in focus, prepared with the help of the guide to be prepared by the end of the first phase of the project.

In the spring semester of 2023-2024 academic year, the second test lectures will be conducted at AHEP and MSGSU equipped with field trips again. However, this time, the content of the courses delivered at these institutions will be slightly different, as the "Palimpsest City" in focus will be exchanged. In other words, AHEP will be testing Palimpsest Cities-Istanbul course whereas MSGSU will be testing Palimpsest Cities-Alanya course, in Alanya and in Istanbul respectively. This will give the project group the chance to make different implementations for different contents or subjects and these tests will also form a good example of adaptations of courses to different universities or departments.

Further implementations in Alanya and Istanbul with public workshops, especially in collaboration with associated partners and local groups will be an essential part of the project, and it is planned to take place in the last quarter of the project duration. Children, women, immigrants, elderly and disabled people will be given priority in local implementations and adaptations of the Palimpsest Cities course will be delivered to local people as free workshops with on-site tours. Towards the end of these implementations as well as the first implementations in Bucharest and Volos, and at the end of the first and second test lectures at AHEP and MSGSU, interviews with students, instructors

and local people participating in workshops will be conducted. As explained above, these will give the project group the essential insight and feedback to improve the quality of the outputs of the project.

Finally, in the last three months of the project, dissemination activities will be intensified to extend the reach of the project outputs. These activities will also include the development of a mobile guide demonstrating the tangible layers of a city's history incorporating the architectural heritage from different periods. This app will be similar to the Timeline Travel Mobile App (Özgüleş, 2020) and adaptable to any "Palimpsest City" on earth, with a user-friendly interface.

4. Expected results

During the realization of the project and at the end of the project duration, we expect to have some general and concrete results, that would contribute to one or more EU priorities and yield significant improvements in architectural and cultural heritage awareness. First of all, we are positive that this project will create stronger bonds with the city for everyone, hence better protection of our built environment. In the long term, the project will in all likelihood bring out positive impacts to ensure the protection of our built environment with the direct involvement of local people (De le Torre, 2013; Graham and Howard, 2016). More importantly, we are positive that the participants of the project, both the students and the local people, would become active protectors of their cultural heritage by gaining sense of place (Waterton, 2005; Çiftçi, 2020).

On the other hand, we expect that this project and its implementations would open a new path both in architectural education and heritage conservation, with its original, interdisciplinary approach putting learners into an active role (Vogel and Klassen, 2001). We also hope to create strong synergies in academia, NGOs and local bodies with the project's inclusive character.

As a result of the implementations throughout the project duration, including the research, design and testing phases, we hope to have following concrete results:

-At least 60 students from two partner universities will take this new course and increase their awareness of architectural and cultural heritage

-40 high school children from the other two partner cities, Bucharest and Volos, will have workshops on cultural heritage awareness about their own cities.

-20 members of the project team will not only improve their academic and pedagogic skills but also establish new networks

-A total of 1000 local people from Alanya, Istanbul, Bucharest and Volos will get architectural and cultural heritage awareness about their cities' historic past by benefitting from the cleverly adopted outputs of the project.

-A total of 100 people from underrepresented groups, especially those who cannot benefit from and identify with their multilayered city's heritage, will find the chance to truly meet with their cities

-A set of 60 pre-tests and end-tests providing data that will help us to understand how successful the project has been and whether it has achieved its objectives.

Accordingly, at the end of the project duration, we anticipate to validate this new educational approach, together with success of the course and assessment system, and the impact of the course, i.e. whether it raised cultural heritage awareness or not with the user interviews. We are planning to publish the results and outputs of the project in one or two research articles, with one or two conference presentations. All of these would definitely improve the outreach of the project and intensify its impact.

5. Conclusions

In conclusion, the Palimpsest Cities Project presented in this paper, would be an innovative contribution to the field, as it will create a hybrid course through augmenting alternative education methodologies and intertwining various course modules created with the most appropriate competences of the partner institutions. By putting students into a more active role, using their creativity through learning by doing approach and bridging between different disciplines and benefiting from digital tools through gamification and storytelling, this project is very innovative and ambitious, and it also aims at establishing new collaborations between higher education institutions, local bodies and creative sectors.

By creating effective methods to ensure inclusiveness through all layers of the public, by introducing new digital tools and interactive workshops, and by bringing hands-on non-formal and informal teaching methods in a formal education environment depending heavily on "learn by doing" methodology -a strong notion embedded in the nature of architectural education and very much dependent on the enhancement of the artistic creativity of the learner-, the proposed project come to the forefront. Last but not least, with its emphasis on gaming and storytelling, this project aims at transforming the teaching practice to make it more sustainable compared to conventional methods, especially given the fact that architectural history is usually described as one of the most boring subjects in schools of architecture.

Conflict of Interests
The author declares no conflict of interest.

References
Çiftçi, A. (2020). Impact of Historic Environments on Child's Cultural Identity and Architectural Heritage Awareness: C.A.T.C.H. (Children-Architects to Create Homes), Erasmus + Project Experience. The Historic Environment: Policy & Practice, 11(2-3), 127–157. doi:10.1080/17567505.2020.1750291

De la Torre, M. (2013). Values and Heritage Conservation. Heritage & Society, 6(2), 155–166. doi:10.1179/2159032x13z.00000000011

Graham, B., & Howard, P. (2016). Introduction: Heritage and Identity. The Routledge Research Companion to Heritage and Identity, 1–15. doi:10.4324/9781315613031-101

Özgüleş, M. (2020). Timeline Travel Mobile App, https://play.google.com/store/apps/details?id=com.timelinetravel&hl=en_US&gl=US

Özgüleş, M., Kalman, M., Özyurt, M., & Şahin, S. (2020). Exploring student perceptions and experiences of different teaching and learning approaches in architectural history education: a comparative case study. Learning Environments Research, 24(2), 269–297. doi:10.1007/s10984-020-09328-9

Prensky, M. (2001). *Digital game-based learning*. New York: McGraw-Hill.

Prensky, M. (2012). *From Digital Natives to Digital Wisdom: Hopeful Essays for 21st Century Learning*. doi:10.4135/9781483387765

Thompson, J. R. (2017). *Teaching Global Architectural History*. http://gahtc.org/

Vogel, D., & Klassen, J. (2001). Technology-supported learning:status, issues and trends. Journal of Computer Assisted Learning, 17(1), 104–114. doi:10.1111/j.1365-2729.2001.00163.x

Waterton, E. (2005). Whose Sense of Place? Reconciling Archaeological Perspectives with Community Values: Cultural Landscapes in England. International Journal of Heritage Studies, 11(4), 309–325. doi:10.1080/13527250500235591