

Participatory Monitoring in Cultural Heritage Conservation

Case Study: The Landscape Zone of the Bisotun World Heritage Site

Ahmad NASROLAHI, Tech4Culture PhD program, University of Turin, Iran

Cirstina GENA, Computer Science Department, University of Turin, Italy

Vito MESSINA, Historical Studies Department, University of Turin, Italy

Samet EJRAEI, Bisotun World Heritage Site, Iran's Ministry of Cultural Heritage, Iran

Keywords: *Participatory monitoring — Cultural heritage — Mobile application — Community engagement*

CHNT Reference: Nasrolahi, A., Gena, C., Messina, V., and Ejraei, S. (2021). 'Participatory Monitoring in Cultural Heritage Conservation, Case Study: The Landscape Zone of the Bisotun World Heritage Site', in CHNT – ICOMOS Editorial board. *Proceedings of the 26th International Conference on Cultural Heritage and New Technologies*. Heidelberg: Propylaeum.

Introduction

Community participation in cultural heritage conservation has been a concern since the Venice Charter (1964) so far. In addition, the Faro Convention (2005) emphasized that the responsibilities regarding the protection, conservation and management of the cultural heritage sites must be shared between authorities and civil society to make possible a joint action among different stakeholders (Peters and others, 2020, p. 71).

At the Bisotun Site, participatory monitoring means the systematic reporting and recording of issues regarding the cultural heritage properties provided by people living in the landscape zone in order to achieve sustainable monitoring of cultural heritage properties. In fact, the local people contribute in monitor progress of safeguarding and protecting their heritage by daily observing and reporting the issues.

Bisotun World Heritage Landscape Zone

The site of Bisotun is located along one of the main routes connecting the Iranian Plateau with the Mesopotamian plain, and is associated with the sacred Bisotun mountain. There is archaeological evidence of human settlement that date from prehistoric eras to the Islamic period, including remains dating to the Median, Achaemenid, Parthian and Sassanian times: the most significant period is that ranging from the 6th century BCE to the 6th century CE, however.

The management system of the site, which is the Bisotun World Heritage Research Base, is a part of the national government (Ministry of Cultural Heritage, Tourism and Handicraft), which is responsible for protection, conservation, education and rehabilitation of the area. The main important task of the Research Base is to ensure safeguarding and protecting the cultural heritage properties in its own landscape zone. This zone covers more than 35000 hectares, which include 150 cultural heritage properties registered in the national heritage list. Moreover, one of the properties, the relief and

inscription of Darius the Great, has been designated in the World Heritage List in 2006 (ICHTO, 2006, p. 11—13).

The Stakeholders

According to the Getty Vocabulary platform, stakeholder means “any individual or group with a stake in an organization or enterprise who may be vitally affected by its actions and should be consulted or considered. Includes stockholders, financially invested parties with a governing interest, but also employees of a business and the community at large. Usage applied by practitioners of fields such as archaeology and heritage management.” In the landscape zone, more than 65000 people are living in the 63 villages and one city in four different categories:

- Community of place: include all resident people in the landscape zone.
- Community of practice: who are groups of participants that have an ongoing interaction around a shared concern such as farmers.
- Community of action: The Bisotun World Heritage Site, municipality of Bisotun city and local government are the main authorities in the zone.
- Community of interest: there are two non-governmental organizations (NGO) who are working directly with the conservation of cultural heritage sites. These two NGOs work as a facilitator for improving awareness and training local people.

COMMUNITY ENGAGEMENT APPROACH

Based on the national and international documents related to engage local people in the cultural heritage conservation and management, the Bisotun World Heritage Research Base is implementing a people-centred strategy by different programs for various stakeholders by holding training courses, workshops, occasional festivals and ceremonies. Since the community engagement is a sort of long-run project, this approach has been divided into different levels. In the first stage, starting from February 2021, monthly training courses and workshops have been planned for governmental authorities such as the municipality of Bisotun city, Industry, Mine and Trade Organization and other local governments for improving their knowledge and awareness on the values of cultural heritage properties. Furthermore, the comprehensive capacity building program has been planned for the community of place and interest to hear their voices and negotiate about designing and planning a management system based on the community centred approach in the area, which is an ongoing progress.

Using Social Media as a Tool

Now, the authority of the Bisotun World Heritage Site is utilizing two platforms, Instagram and WhatsApp, for engaging the local communities in the monitoring process starting from January 2021. Via these applications, local communities are enabled to report the issues regarding their nearby cultural heritage properties. The process of monitoring has been attempted to be as simple as possible, because the majority of stakeholders are farmers. During these three months (from January to March 2021), 97 issues have been reported by people. The main issues were unauthorized construction in the buffer zones of properties and illegal excavations. All cultural heritage properties in the landscape zone have specific laws and regulations for their core zones and buffer zones. Since

the existing villages and the city have been located on and/or nearby the archaeological hills and sites, for all sorts of development projects, they must apply for getting permission issued by the Bisotun World Heritage Research Base.

The area is full of archaeological traces and sites, thus illegal trade and excavations have always been a problem. Although there is ongoing monitoring of the properties, the Bisotun World Heritage Research Base is disable to cover all parts of the landscape zone around 35000 hectares. So, local people are also assisting the Bisotun manager in this respect.

If we accept that social media are interactive technologies to facilitate sharing or/and exchange of the information and idea via virtual communities and networks, at least they are not an effective tool for participatory monitoring. Using Instagram and WhatsApp in this case have encountered several problems. The worst issue is that there is no way to categorize the information submitted by the local people. Another problem is that it is not possible to add some required information to the reported issues via Instagram and WhatsApp. Thus, using these social media do not meet the demands of monitoring. For example, most often, the precise location of the reported issue is not distinctly clear, so it could be difficult to find the issue's position.

Ongoing works

The Bisotun World Heritage Research Base is going to design a specific mobile application in order to monitor its landscape zone, because the using social media do not meet the needs of the participatory monitoring. Besides, the Research Base is working on launching its own mobile application called iCommunity for achieving people-centred approach in conservation and management of the Bisotun World Heritage Site. The main goal of the iCommunity is to engage different stakeholders, such as local people living in the Bisotun world heritage landscape zone, to take active roles in decision-making processes related to management and conservation. Furthermore, this mobile application will provide sufficient information and clear data for direct and indirect education of users by holding different workshops. Data shown in the application will also help people to understand the reasons behind the implementation of planned activities by taking part in comments and talking with experts or professionals. In addition, it also aims to participatory monitoring by using the precise locations of the properties, which include analysed data collected by feedback and published the results of the reported issues (Nasrolahi and others, 2021, p. 3) (fig. 1).

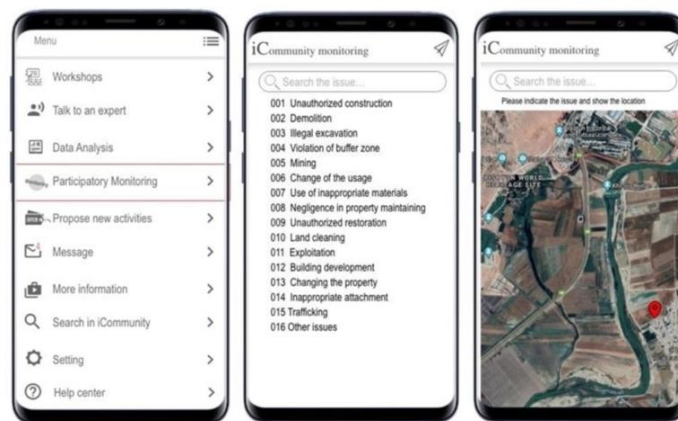


Fig. 1: One of the features of the iCommunity is Participatory Monitoring which users are enabled to report their daily observations in the landscape zone. Designed by Ahmad Nasrolahi

New activities will be posted by institutions on the home page and user's feedback as likes, comments and check-ins, will be immediately shown. Based on the user's location, the application will suggest the users to join the closest institutions for joining. Most often, a number of museums and cultural heritage sites exist in a city with disparate activities and workshops, thus the users can join in each of them depending on their interests. Besides location, each user will be able to search topics for joining their favourite activities among different institutions. In addition, the users involve the posted activities by directly writing comments. Each user will be able to vote and post a comment to the activity and reply to other comments.

The most important part of the application is the voting functionality. Since the group age and other user's specifications will be shown in the user profile if users decide to allow so, collected data will be very important for decision-makers. All collected users' data (such as socio-demographic data, actions, and comments) will be analysed and classified in background by a machine learning component, and inferred needs and interests will be classified and used for taking the best decision. After voting to each project, a bonus will be added to the user's account as an incentive for encouraging participants to vote (ex. visiting the site or museum for free), and also other gamification strategies will be added in order to increase user's participation in the decisions.

Funding

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 754511 in the frame of the PhD Program Technologies for Cultural Heritage (T4C) held by the University of Torino. Ahmad Nasrolahi would like to express his sincere gratitude to his research supervisors for their guidance, patience and encouragement.

Conflict of Interests Disclosure

Ahmad Nasrolahi, Cristina Gena, Vito Messina and Samet Ejraei declare that they have no conflict of interest.

Author Contributions

Conceptualization: Vito Messina, Cristina Gena

Data curation: Ahmad Nasrolahi

Investigation: Ahmad Nasrolahi, Samet Ejraei

Methodology: Vito Messina, Cristina Gena, Ahmad Nasrolahi

Resources: Samet Ejraei

Software: Ahmad Nasrolahi

Supervision: Vito Messina, Cristina Gena, Samet Ejraei

Visualization: Ahmad Nasrolahi

Writing – original draft: Ahmad Nasrolahi, Samet Ejraei

Writing – review & editing: Vito Messina, Cristina Gena

References

- Iranian Cultural Heritage and Tourism Organization (ICHTO). (2006). 'Bisotun, the Site and the Rock Relief of Darius the Great'. Kermanshah. Available at <https://whc.unesco.org/uploads/nominations/1222.pdf> (Accessed: 01 May 2021).
- Nasrolahi, A., Messina, V., and Cristina Gena. (2020). 'Public Participation in Museums and Cultural Heritage Sites: iCommunity Mobile Application'. *Proceedings of AVI2CH 2020: Workshop on Advanced Visual Interfaces and Interactions in Cultural Heritage (AVI2CH 2020)*. ACM, New York, NY, USA, 5 pages. Available at <http://ceur-ws.org/Vol-2687/paper8.pdf> (Accessed: 07 May 2021).
- Peters, R., Den Boer, I., Johnson, J., & Pancaldo, S. (Eds.). (2020). 'Heritage Conservation and Social Engagement'. London: UCL Press, page 71. DOI: [10.2307/j.ctv13xps1q](https://doi.org/10.2307/j.ctv13xps1q)