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# ABSTRACT BOOK



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## Stakeholder engagement in the recovery project of Monelos urban river Monelos (Spain)

Amal NNECHACHI BOUNOUS<sup>1</sup>, Jerónimo PUERTAS AGUDO<sup>2</sup>, Francisco Alberto VARELA GARCÍA<sup>3</sup>

<sup>1,3</sup> University of A Coruña (UDC), Advanced Visualization and Mapping Group (cartoLAB), Department of Civil Engineering, Elviña, 15071, A Coruña, Spain

emails: <sup>1</sup>amal.nnechachi@udc.es ; <sup>3</sup>alberto.varela@udc.es

<sup>2</sup> University of A Coruña (UDC), Environmental and Water Engineering Group, Department of Civil Engineering, Elviña, 15071, A Coruña, Spain  
email: jeronimo.puertas@udc.es

### ABSTRACT

For many years of urban development in the city of A Coruña, the courses of the Monelos River were primarily used as waste water dump sites, from residential and industrial discharges. Consequently, the streams became an important source of pollution and odours, damaging the image of the city and the well-being of the citizens. These were additional issues to the risk of flooding during the rainy season. Therefore, in the 1960s, the solution was to channel, divert and pipe the river through the sewer system as the city grew. Monelos river revival (MonRiver) is a project that, since 2017, aims at recovering the river by means of different alternatives, daylighting, rehabilitation or restoration, bearing in mind that options in urbanized areas are highly constrained, mainly due to urban infrastructure and land availability (Bernhardt & Palmer, 2007). And also a cultural restoration of the river will be carried out.

### 1. Introduction

The original basin of the Monelos River is about 23 km<sup>2</sup> and around 60% of its course is piped. The restoration project has a technical component, which includes the river modelling using a 2D-1D coupled model, that considers the hydrology and hydraulics of the river bed areas and culverts, and a cultural component of citizen involvement. Early engagement of citizens and stakeholders is necessary to achieve smooth interaction and active participation for a successful recovery (Paschke, Perkins, & Veblen, 2019).



Fig. 1. Historical evolution of different sections of the river and its tributaries.

### 2. Materials and methods

The review of the literature and the search and analysis of historical projects about interventions in the river, maps, old photographs, newspaper library, and so on are used for the historical characterization of the river and its tributaries. The aim is to find out the original state of the watershed and the urban transformations that have brought it to the present situation (Fig. 1). To this end, citizens and stakeholders are involved.

A cultural restoration (Pinkham, 2000) of the streams is carried out, where the river has been commemorated through different activities with the objective of awakening and feeding the interest of the citizens to value the river even though it remains hidden, identifying the historical heritages and potential cultural ecosystem services. The dissemination process has been structured in three groups:

**Creative developments:** cultural and artistic pursuits. Participatory projects based on art and culture whose central theme is the Monelos River (past, present and future), aimed at citizens in general and which help to acquire a commitment to revalue the river and the elements of the city that commemorate or symbolize it. Some projects in an advanced stage are the following, although some ideas are still in the design phase.

- Collaboration in the creation of the film "Monelos. Forget No River" (2017).

- “Diffusion and enhancement of the Monelos river through urban art open to society”. Project in collaboration with the area of culture of the University of A Coruña (UDC), in which two activities of design and execution are carried out: a mural in a neighbourhood where the Monelos River flows and involving especially the students of a nearby school and a painting on sidewalks of the river's underground route.

**Technical and social events.** Organization of events to promote the project and encourage participation and involvement in its development. The target audience varies depending on the type of event, technicians, interested agents, local experts and general public.

- Conferences to present the MonRiveR project and the advances in research work (Fig. 2). We also plan to organize a conference on the restoration of urban rivers with the participation of experts in this field with experience in work elsewhere.
- Workshop held in different high schools to identify the ecosystem services that the river could provide.
- Excursions along sections of the river and its tributaries, planned in collaboration with the Environmental Office (UDC)
- Meetings with experts in the history of the river that provide historical facts, memories, ideas to recover and value the river. There is in fact a constant commitment of a group of older people, environmental groups, neighbourhood associations, activists who have known the river and claim its recovery.



Fig. 2. Introduction of the MonRiveR project.

**Digital and social media shares.** The involvement of the public is carried out by means of digital tools, where citizens provide information or where the data obtained is disseminated and shared.

- Emaptic is a tool developed by cartoLAB (UDC) to carry out geolocalized surveys. One of the initiatives is the geolocation of historical photographs of the river course. (<https://emaptic.es/custom/monriver>).
- MonRiveR website ([www.monriver.es](http://www.monriver.es)). It contains most of the information about the project that serves as a portal for the dissemination of information as well as a source of interaction with stakeholders, where they can make proposals or learn about the progress and activities to be developed.
- Press publications, participation in radio programmes and broadcasts via Twitter, Facebook and Instagram (#MonRiveR).

### 3. Results and discussion

The design of the cultural restoration process of the river is dynamic and iterative. Citizens and stakeholders can have substantial knowledge about a particular theme in the city and provide input into the planning process, including identifying priorities for restoration, and promoting support and compliance.

So far, 45 tweets, one radio interview, 3 press releases, 10 meetings with experts, 4 events and 3 excursions have been conducted. In addition, the City Council of A Coruña has designed two projects of action in the sewerage network related to the river.

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