# Fountains and Monuments in the public space of the City of Turin

Ministero dell'Università

e della Ricerca

# A Proposal for the Planned Preventive Conservation and Management Tools

Italiadomani Di RIDA NAZI DI MALE DI RIDA DAZI DI MALE

## The Fondazione 1563 and the *Fountains and Monuments* project in the framework of CHANGES

dall'Unione europea

## The Fondazione 1563: Archive and Research in the Humanities

The Fondazione 1563 per l'Arte e la Cultura della Compagnia di San Paolo is a Turin-based, no profit organisation and it serves as an auxiliary body of the Fondazione Compagnia di San Paolo, preserving and enhancing its Historical Archive, which originated in 1563 and is still active today: 460 years of history spanning 2 linear kilometres of documents. The Fondazione 1563 also promotes and supports research programs in the Humanities, with a strong focus on the development of Digital Humanities.

## **CHANGES - Cultural Heritage Active Innovation** for Nex-Gen Sustainable Society

Since December 2022, the Fondazione 1563 has been a member of the Extended Partnership CHANGES - Cultural Heritage Active Innovation for Nex-Gen Sustainable Society, funded by the National Resilience and Recovery Plan (NRRP) as a part of the Next Generation EU Programme (NGEU) and organised in nine thematic functional spokes focusing on specific topics. The Fondazione 1563 operates within the context

of the Spoke 6 – History, Conservation and Restoration of Cultural Heritage.

CHANGE

History, Conservation and Restoration of Cultural Heritag

## The Fountains and Monuments project: Research and Development for the Preventive Conservation of Outdoor Cultural Heritage

Fountains and Monuments is the project the Fondazione 1563 is carrying out as affiliate of the partnership CHANGES, with the technical-scientific collaboration of the Fondazione Centro Conservazione e Restauro La Venaria Reale; the Fondazione LINKS, and Ithaca.







G. Verginelli, Memorial to the Italian Military Driver, 1961. Torino, Corso Unità d'Italia.

G. Ambrosio, Monument to Angelo Brofferio 1871. Torino, Corso Siccardi.



**The Cenisio-Frejus tunnel Monument-Fountain:** a Complex Case Study



#### L. Belli, O. Tabacchi, The Cenisio-Frejus tunnel monument-fountain 1879. Torino, Piazza Statuto,

A in the round fountain, produced and put in place in 1879, large dimensions (height 20 m., diameter 24 m., weight 150.000 kg), different materials (stone, marble, bronze, hydraulic system), subjected to recurring maintenance but in the need to be restored, located in a highly trafficked square in Turin city centre.

### **STEPS:**

• Identifying critical issues and degradation phenomena: microclimate monitoring, biological degradation, damage mitigation. A diagnostic campaign will be conducted in collaboration with the **Department of Chemistry of the University of Milan**.\*



. Belli, O. Tabacchi, The Cenisio-Frejus tunnel monument-fountain 1879. Torino, Piazza Statuto.

Via Santa Chiara Fountain, Torino.



G. Duprè, Monument to Camillo Benso count of Cavour, 1865/1873. Torino, Piazza Carlo Emanuele.

## **GOALS:**

- Operational Management Protocol: defining an operational management protocol for the planned preventive conservation and maintenance of outdoor assets, using the fountains and monuments in the public space of the City of Turin as a case study.
- Management tools for Public Administration: developing actions that address the public administration's need for sustainable management and organization tools and support data-driven decision-making processes.
- Technological and Disciplinary Advancements: promoting technological and disciplinary advancements in the conservation sector, with the purpose of supporting the transition between emergency restoration and the development of conservation plans based on predictive analysis and long-term planning.
- Transferring primary research to management, with particular attention to the scalability and exportability of the model.

- Planning of interventions and implementation.
- Assessing resilience of the assets and effectiveness of materials for the restoration.
- Designing a pilot: geodatabase and selected dataset; study the asset location via virtual tour; 3D modelling.

In particular, the composition of black crusts and surface deposits in the different parts of the monument will be studied by means of analytical methodologies. This will be possible through the collection of micro-samples. Both organic carbon (OC) and elemental carbon (EC, also known as black carbon, i.e. the component that gives the crusts their characteristic black colour) will be quantified, as well as the inorganic fraction, including heavy metals content. The constituents of the crusts will be related to the chemical composition of **atmospheric particulate matter** (PM) present in the air (data acquired from the regional agency for environmental protection).



### **DELIVERABLE:**

#### Management protocol for the planned conservation of outdoor assets:

- Acquisition, storage, and management of data and processes.
- Interoperable and sustainable data in terms of economic and human resources.
- Monitoring of actions taken and the resilience of the assets in a medium- and longterm planning perspective.











Laura Fornara laura.fornara@fondazione1563.it Francesca Bocasso francesca.bocasso@fondazione1563.it

University of Milan, Department of Chemistry

Paola Fermo paola.fermo@unimi.it

Valeria Comite valeria.comite@unimi.it