

The restoration interventions of “Forte Marghera” in Venice

Filippo Casarin*, Riccardo Cianchetti[†], Tommaso Dalla Via[†], Martina Meggiato[†] and Marco Mocellini*

* R-Struct srl

Via Vigonovese 31, 35127 – Padova, Italy

e-mail: casarin@rstruct.com - Web page: <http://www.rstruct.com>

[†] Insula S.p.A.

Santa Croce, 489 - 30135 Venezia, Italy

e-mail: Tommaso.DallaVia@insula.it - Web page: <http://www.insula.it>

ABSTRACT

In the framework of the *Strategic Masterplan Cultural Heritage 2014-2018* of the Italian Ministry of Culture, a specific attention for the strengthening and constitution of relevant urban cultural centres is sought through the restoration and re-use of structural complexes of great architectural and historic value such as the case of Forte Marghera (*Marghera Fort*) of Venice.

The need to build a fortress at the point where the mainland approached Venice was understood, after the fall of the “Serenissima” Republic (1797), by the Austrian Empire. The fort was therefore built in a marshy area on the edge of the Venice lagoon, crossed by a maze of canals. The works started in 1805. On the area there was already the old village of Malghera, home to warehouses and customs, which was incorporated into the Fort. However, the return of Napoleon's troops in 1806 surprised the works still in a early stage. The fortified work was then revised according to the plans of the French architect Marescò, and conducted under the guidance of the general and military engineer François-Joseph Chaussegros de Léry and later the Chasseloup.

The most significant buildings still present in the fortress – object of the current restoration works - are the two French barracks (1805-1814), located on the front near the dock. They are two-storey brickwork masonry structures with a 83x15 m rectangular plan and perimeter walls reaching a 3 m thickness, provided with decorative elements made of Istria stone. Visible decay is present in both two massive buildings, due to differential settlements mainly visible the long sides of both buildings, especially affecting the West one, also partially subjected to local collapse.

A wide investigation campaign is currently ongoing, aiming to the adequate characterization of the constituting materials and building techniques, in order to properly feed the design of restoration interventions which must stand on a precise and conservative approach. First outcomes indicate the use of good quality materials and proper layout also in the foundation system, indicating in the poor soil mechanical characteristics the main structural deficiency leading to the visible settlements.

The paper will describe all the multidisciplinary steps undertaken for the restoration and re-use of the fort, in the effort of providing Venice with a Cultural Heritage monument redevelopment fit for leisure sport and culture, however respectful of the site history and its strong cultural value.

REFERENCES

- [1] Ministerial Decree 556 - 02/12/2016, Decree of the Ministry of Culture (MIBAC) approving the “Strategic Masterplan Cultural Heritage”, year 2017-2018, funding the intervention “Forte Marghera, museal restoration in the environmental crisis area” (in Italian);
- [2] Agreement for the execution of the intervention signed by the General Secretary (MIBAC local economic seat) and the Venice Municipality dated 06/02/2016 (in Italian);
- [3] M. Mocellini, F. Casarin (R-Struct, 2018) – preliminary design of the strengthening and reconstruction intervention of pavilions 8, 9 and 28 of Forte Marghera, Venice, IT