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“Il giro dell’acqua”. Analisi strutturale dell’Acquedotto Storico di Genova attraverso l’esame schematico del sistema idrico di una cisterna ipogea

The “loop of water”. Structural analysis of the Historic Aqueduct of Genoa through a schematic examination of the water system of an underground cistern

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Riassunto

Dalle ricerche condotte dal Centro Studi Sotterranei nel sottosuolo di Genova emerge una grande varietà di strutture ipogee realizzate dall’uomo nel corso dei secoli. Quelle più numerose ed estese riguardano le antiche opere idriche di regimazione, di approvvigionamento, di distribuzione e stoccaggio dell’acqua potabile. Gli interventi principali riguardano la copertura progressiva dei torrenti, diventati sotterranei a tutti gli effetti, la realizzazione di acquedotti per produrre forza motrice e per il fabbisogno di acqua potabile della città, nonché la costruzione di un numero elevato di cisterne pubbliche e private, ormai da tempo in disuso e sovente colme di detriti, collocate sotto gli edifici del centro storico. In questo lavoro, in base alle numerose evidenze individuate nel sottosuolo urbano, è stato preso in considerazione l’impianto di distribuzione dell’acquedotto medievale e il sistema di ripartizione dell’acqua tra gli utenti. Vengono, infine, illustrate le caratteristiche peculiari di una delle grandi cisterne, considerata esemplificativa di uno schema di alimentazione generalmente identificato come “giro dell’acqua”.

Parole chiave: approvvigionamento idrico, distribuzione, serbatoi sotterranei, trogoli, derivazioni, bronzini.

Abstract

Following the surveys of Centre for Underground Studies in the subsoil of Genoa emerges a great variety of underground structures made by man over the centuries. The most extensive and prevalent examples pertain to ancient water management systems, including those for regulation, reclamation, distribution, and the storage of potable water. The main interventions concern the progressive coverage of the streams, which have become underground, the construction of aqueducts to produce moving power and for the needs of the city, as well as the placement of many public and private cisterns, long since disused and often filled with debris, placed under the buildings of the Historic Center. This paper examines the distribution structure of the medieval aqueduct and the water allocation system among users, based on substantial evidence uncovered in the urban subsoil. It presents historical and technical insights into the evolution of the ancient Genoese water system, administrative practices, social implications, and the origins of distinctive local terminology. Finally, one of the most significant areas of the city is taken into consideration to illustrate the peculiar characteristics of one of the large cisterns, considered as example of a feeding scheme generally identified as “loop of water”. By exploiting gravity and property of communicating vessels, it is discovered that the aqueduct (publicly owned), in its long route, was not limited simply to feeding a multiplicity of specific users, independent of each other, but that, not infrequently, large collection structures had a multiplicity of functions carried out by a system, sometimes very complex, of connections and branches which supplied, even at a considerable distance from the origin, the noble houses and their plots, as well as privileged users (for a fee) and ordinary citizens, military works or public services, such as fountains, washing troughs, mills and the supply of ships in the harbor.

Keywords: water supply, distribution, underground reservoirs, troughs, branches, bronzini.

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