

n. 4, 2013: Materiali e costruzione in architettura. Itinerari di ricerca

- Editoriale

- A. Boato, A. Grimoldi, A.G. Landi, Le indagini sui laterizi, fra strumenti archeologici e dinamiche socio-economiche

Ever since the 1980s, the term "mensiochronology" has been used to refer to methods for dating bricks and other building materials that are almost entirely based on the variations in the dimensions of the items examined. Today, it mostly applies to the dating of bricks used in construction because the mensiochronological method seems to be most effective in this field. Nevertheless, the application of mensiochronology cannot fail to take into account the institutional and social history of cities and regions. The extremely important results achieved in Genoa oblige us to test the limits of this archaeological tool in order to encourage further investigations and improvements. The sometimes open-ended results of the studies conducted on other Italian cities from this perspective reveal a series of questions which are clearly evident, firstly, in the case of Milan (a large city with an intense building activity), and secondly, in the extreme case of Cremona, whose smaller size exacerbates the characteristics typical of the Milanese situation and where it is easier to note the number and nature of the differences compared to the aforementioned more positive case of Genoa, the clarity of its "mensiochronological master curve", and the resulting interpretive model.

- R. GARGIANI, Il cemento di Loriot: sperimentazioni tecniche e restauri di monumenti, 1770-1778

Cement joined the list of materials suitable for use in restoration work from the moment it first officially reappeared as a bonding agent with extraordinary properties in the 1770s. Despite the many techniques used to make cement and concrete known in the eighteenth century, Loriot's discovery and the international renown that greeted his formula occurred in such a way that his creation gained supremacy as a prime example of a new cement devised according to ancient methods. Loriot's cement was destined to become the international symbol of this new material, at least until the products developed by Parker and Vicat appeared on the scene.

However, if we reconstruct what happened during trials of Loriot's cement, what emerges is that, behind the propaganda machine orchestrated by the king's superintendent, real conflicts arose among various fields of technical expertise and among those doing the construction work. Moreover, the fact that trials using this new cement were carried out during the restoration of important monuments in

Versailles and Paris reveals a surprising chapter in the history of the importance of cement in the sphere of architectural culture. From the moment it reappeared under the guise of Loriot's product as applied to restoration work, cement began to demonstrate, perhaps for the very first time, all its potential as a stone surrogate, a material it could even imitate in terms of colour thanks to the carefully calculated composition of the ingredients and a sophisticated working of the surfaces, thus competing head-to-head with the various types of artificial marble available, such as scagliola. Loriot's improvements to the monuments in Versailles and Paris were already characterised by some of the main doubts inherent in the problematic – and now centuries-old – history of the use of cement in the field of restoration, a history that has yet to be fully written.

- M. CAPERNA, A. GIACOPELLO, La chiesa di Santa Maria del Pianto e il suo prospetto laterale: note da un cantiere interrotto del primo Seicento romano

The unfinished church of Santa Maria del Pianto in Rome – whose construction began in the early 1600s – offers us the chance to examine in detail the construction techniques employed. The large number of historical records available – and, above all, the architectural survey and a direct examination of the building – enable us to review the features that characterise its construction.

This research focuses particularly on the side elevation planned for the church. It discusses the quality of the entablature and the masonry techniques used to lay the bricks cladding its façade, from both a technical and an aesthetic standpoint. All this is considered in relation to the broader architectural panorama existing in Rome in the years spanning the late 1500s and early 1600s.

- J. Krähling, A. Koppány, J. Csaba Fekete, B. Halmos, A. Józsa, *The Marionette Opera and the Orangerie of Eszterhàza (Fertöd, Hungary). Building archaeology methods and theoretical reconstruction*

The Marionette Opera and the Orangerie of the Esterházy Castle, together with the water tower, are special part of the baroque castle and garden complex. Among the building complex, the Marionette Theatre excels with its baroque stage machinery and its significant repertory of marionette operas from Joseph Haydn and his contemporaries, which were highly significant in Europe's music culture of the time. The theatre building and the Orangerie, with the exception of the water tower, were converted to granaries, however, their former shape and function, in addition to the remaining descriptions, was not defined in relation to the remaining buildings. During several years of research, the interdisciplinary research methods have provided the opportunity, with the mixture of the tools and methods of the "Bauforschung" approach, which strives to minimise the archaeology and damage, to relook at the structure. Moreover, it helps us to methodically analyse the building complex to such depth, that it allows the reconstruction of the volume of the building and the inner spatial system, meanwhile assigning directions for further research. According to the results of the research, the baroque auditorium and the coulisse stage of the Marionette Theatre can be reconstructed, principally the grotto-like interior and the processes of the baroque stage machinery, however further multiple research works are still required.

- C. MILETO, F. VEGAS, M. DIODATO, Tecniche costruttive tradizionali a Valencia. Metodo e risultati dallo studio materiale dell'architettura

The study presented in this document is the result of years of research examining the construction techniques used in the Comunidad Valenciana region of Spain as commissioned by the regional government. The investigation had two main aims: firstly, to improve our understanding of the construction techniques used in traditional buildings of the area and, secondly, to protect and preserve such buildings (buildings that are often underappreciated and continually under threat). The research that was carried out – and subsequently published in an easy-to-use manual – aims to catalogue and illustrate construction techniques, identify the most common forms of deterioration, and propose guidelines and possible restoration techniques that will preserve existing traditional techniques and materials thanks to projects that, rather than substituting materials, focus on salvaging existing materials and possibly supplementing them with others that are compatible with the existing structures. After all, while we certainly don't expect such humble buildings to

be frozen in time, we do hope to salvage their materials, their construction techniques, and features, operating in a compatible way through the addition of residential functions that n	d their architectural neet current needs.