

# The Church of San Gaetano in Florence – Archaeology of an Early 17th Century Building Yard

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*Florence; 17th century; Church of San Gaetano; building yard*

The church of San Michele and Gaetano is located in Piazza Antinori, a place corresponding to the north-west corner of the city wall of Roman Florentia. The first written account of the previous church, dedicated to San Michele Bertelde, dates to 1055. From 1553 the church was managed by the Olivetani monks and still preserved a late medieval character according to the view of Florence by Stefano Bonsignori (1584) and by an anonymous map dated to 1592. In this year, the Olivetani sold the church to the new religious order of Teatini, founded by San Gaetano from Thiene whom the church was therefore dedicated to. An enlargement was subsequently done in 1599 due to the need for a larger convent, which substantially changed the topography of the area. The Teatini turned their attention to the planning of a new church for which construction began in 1604 and lasted for nearly one century, until 1701. The need for a worship place during the long-lasting building activity was solved by keeping the old church in function as long as the new one was under construction. The older church was finally destroyed after the roof of the new church was completed (a detailed history of the building yard based on written sources by Chini 1984). The archaeological research, by a team of the course of Medieval Archaeology of the University of Florence and directed on the field by the author, focused on the vault of the nave which was restored by the Soprintendenza ai Beni Architettonici di Firenze in 1996 (for a short account on the restoration see Mignani 1996). In fact, the preliminary sounding dug in the filling of the structure showed a sequence of layers from which a number of artefacts

were collected. The archaeological analysis included stratigraphic excavations of the filling, and observations on wooden and masonry structures. Most of the archaeological data are related to the 17th century building yard for the construction of the new church and allow a very detailed reconstruction of the building yard itself. Due to favourable environmental conditions normally rarely preserved materials, such as wood, textiles and leather, were also conserved. Another remarkable aspect of the baroque building yard is the extensive reuse of materials coming from the structures of the medieval church, from which stones, wood and even metal were carefully collected to be reused in the new one.

The following archaeological phases connected with the Baroque building yard have been identified.

## Phase I: Building Up of External Walls

Layer 14, the filling of the vault, mainly composed of loose material coming from the different activities of the building yard, includes also alien 'blocks' of hard yellowish clay containing Late Roman (amphorae, Terra Sigillata italica and common ware) and late medieval pottery (jugs, 'paioli', cooking pots and archaic majolica). These materials, together with the clay, come from the first stage of the Baroque building yard, that is the digging of the foundation trenches for the new church. It is very interesting to note that contemporary written sources refer to a Roman building which was found by the digging of the foundation trench-

es during the first construction phase (Chini 1984, 41, note 9). In a more general sense, this is the archaeological evidence of how the reuse of waste material was carefully planned and accurately carried out.

### Phase II: Construction of Vaults

Once the external walls were built, the construction of the vaults began while the old church was still in use. We have no stratigraphic evidences of how these activities developed and written sources are also not helpful for clarifying this point. They refer only generally to the completion of the construction of the vaults between January and October 1639 (Chini 1984, 292–293). According to the archaeological evidence, some wooden elements reused underneath the lateral floors of the terrace clearly belonged to the scaffolding system of the lateral vaults. The inscriptions on two of them show that they were used in the vault scaffold, the radius of them, however, seems to fit more to the lateral vaults.

### Phase III: Construction of Two Parallel Floors Beside the Exterior of the Vault

In this phase, completed between 1642 and 1643, the following activities are clearly recognisable by archaeological evidence:

*Activity 1* includes the construction of two brick walls over the vault in order to support the beams for the lateral floors. The wood for the beams maybe came from demolished scaffolds of the building yard and from the dismantled ceilings of the old church.

*Activity 2* consists in the positioning of wooden beams on the previously built walls. Different provenances are recognisable among them. Archaeological evidence makes it clear, that many different materials were carefully collected and widely reused during the phase of the Baroque building yard. Most of the wooden beams apparently belong to the ceilings of the old building and are completely painted in a dark red colour. They bear diagonal strips in red, white and blue at the lower corners. A reconstruction of the structure of



Fig. 1: View of Florence by Bonsignori (1584) with the location of the church and front view of the façade of the baroque church.

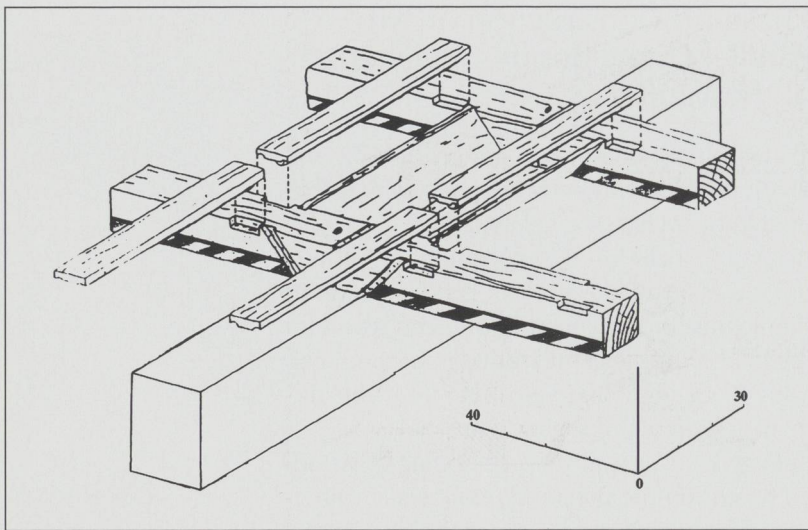


Fig. 2: Reconstruction of a painted ceiling of the late medieval church according to wooden beams reused in the baroque building yard.

these ceilings of the late medieval building according to archaeological data is visible in figure 2.

Further longitudinal walls reusing stones of the old church to retain the filling of the vault were erected (Activity 3).

The next activity (Activity 4) comprises the placing of the planks over the beams. The planks also come from already destroyed structures of the late medieval building and from dismantled scaffolds of the building yard. Among the latter, two planks show inscriptions of the vault scaffold which they belonged to:

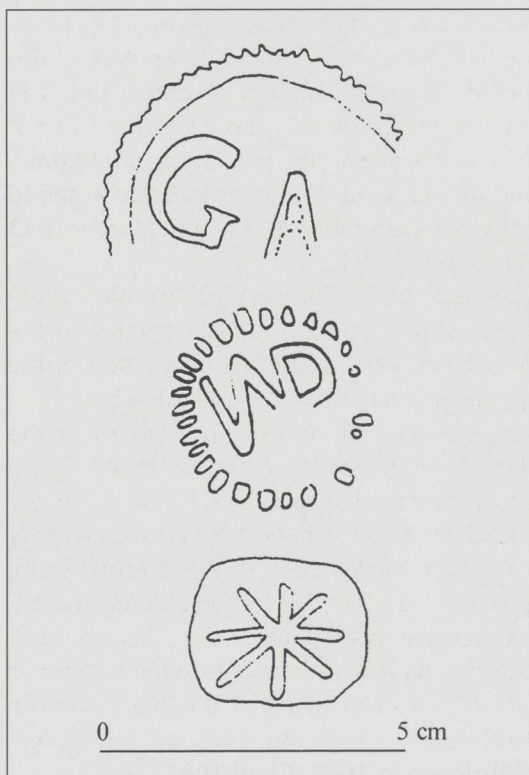


Fig. 3: Marks on timbers coming from the woods of the Opera di S. Maria del Fiore which supplied the building yard. This is the first archaeological evidence of marks already known from written sources. Monograms refer to different suppliers.

'*Seconda centina*' and '*Quarta centina*' (second and fourth vault scaffold).

An accurate observation of each single plank made the identification of different tools and their function, which were in use at that time, possible. Newly supplied timbers arrived at the building yard already approximately squared, directly in the wood, by means of an axe which was used in an oblique way. Each supplier marked his timbers with his own metallic stamp. At least in four cases these marks of the suppliers, consisting of peculiar identification symbols, are still preserved on the original timber surfaces (see fig. 3). This simple method was used for payment purposes in order to recognise the suppliers and the amount of wood floated by each of them (Goldthwaite 1984, 289; 330; 334).

Timbers were then sawed directly on the building yard, according to the different purposes. This was still a working method of medieval origin (Baragli 1996). The observation of the traces of the sawing technique shows that the work passed two cuts: beginning from both ends of each timber which was kept in an oblique position. In the end, both cuts merging in the middle of the timber produced a characteristic triangular shape.

In several cases such planks were then dressed by axe to fit different purposes. These axe traces allow us to state that the tool edges, which were used by the timbermen, were always very well maintained – on the contrary to those used on the building yard which often show several damages caused by the frequent presence of iron nails.

Because the wood coming from dismantled scaffolds was not enough, the positioning of the planks was then completed by reusing all kinds of different materials. The most part includes elements of ceilings, but also carpentry and even furniture and doors coming from the old church. Even nails used for fixing the planks to the beams are mostly coming from dismantled wooden structures, as the analysis of their positions, their typology and the traces of nails once in use compared with the features of nails still in position, showed. Three nail types were distinguished: type 1 is longer, with a circular head; type 2 has an intermediate length and a square head; type 3 is rectangular. Type 2 is the only one specifically supplied for the building yard, while the others were collected both from the old church, from

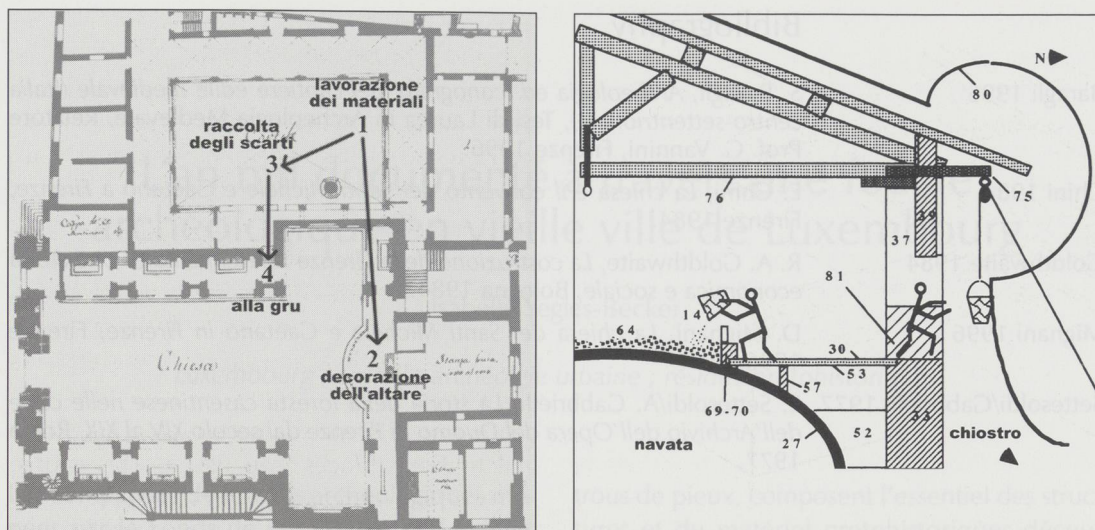


Fig. 4: Plan of the organisation of the building yard: 1 processing of various materials; 2 decoration of the altar; 3 collecting waste material; 4 to the crane) and schematic reconstruction of the filling up of the vault with waste material (December 1642–March 1643); 14 sandy layer with organic remains; 27 vault; 30 wooden floors; 33 southern external wall; 37 pillar; 39 brick arches; 52 transversal vaults; 53 beams of the floors; 57 brick wall; 64 debris of the old church; 69-70 steps; 75 crane; 76 roof carpentry; 80 decoration of the façade.

dismantled scaffolds (type 1) and from furniture (type 3).

These data, together with the practice of collecting and reusing old materials, describe a characteristic building yard of pre-industrial time where the reuse is not simply an accidental method. On the contrary, it is an accurately planned and systematic activity according to an economic balancing of the technical and financial organisation.

A crane was then erected (Activity 5) to lift up the waste material in order to fill up the vault. According to stratigraphical data, this was carried out between 1642 and 1678. Its position above the cloister (fig. 4) shows the area where different materials were collected from all over the building yard (foundation trenches, dismantling of the old church and processing of new material). Among the latter, the reuse of waste materials coming from the cutting of decorative stones is particularly interesting. It allows us a reconstruction of the different stages of the work. These stones (alabaster, white and red marbles), used for the inlaid decoration of the altar by the masterworkers of the 'Opificio delle Pietre Dure', were prepared directly on the building yard and the waste material collected in the cloister was then lifted up by the crane to fill up the outer part of the vault (fig. 4). In the filling of the vault (Activity 6) two layers are recognisable.

US 64 is the lower one and includes debris of the old church (parts of masonry, plaster and bricks). US 14 is a sandy and loose layer with a large amount of organic material coming from the different activities carried out on the building yard, among which a leather shoe and textiles are to be mentioned. Moreover, a certain amount of locally produced pottery (mainly glazed and graffito ware, and 'majolica') dating to the first half of the 17th century is also included. Several boi-led chestnuts found in the same layer let us suppose that the filling of the vault was carried out during wintertime, and in fact, written sources indicate a period between December 1642 and March 1643 (Chini 1984, 294).

The next phase (Phase IV) includes the installing and the decoration of the organ and the completion of the external decoration of the façade which took place within 1688.

The presence of reused materials since the starting of the building clearly shows that a partial dismantling of some parts of the old church must have been taking place already during the construction of the external walls. Moreover, the fact that reused building materials increase in quantity and quality till 1642 matches with written sources which report a first partial dismantling of the old church in 1631 (Chini 1984, 286–287) and a complete destruction in 1640 (Chini 1984, 294).

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