

KNOWLEDGE, ANALYSIS
AND INNOVATIVE METHODS
FOR THE STUDY AND THE DISSEMINATION
OF ANCIENT URBAN AREAS



Proceedings of the KAINUA 2017
International Conference in Honour
of Professor Giuseppe Sassatelli's 70th Birthday
(Bologna, 18-21 April 2017)

edited by
Simone Garagnani, Andrea Gucci

ARCHEOLOGIA E CALCOLATORI

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PYRGI, HARBOUR AND SANCTUARY OF CAERE: LANDSCAPE, URBANISTIC PLANNING AND ARCHITECTURAL FEATURES

1. INTRODUCTION

The overall investigation of the different districts of an Etruscan settlement is an extremely rare circumstance. If compared with other Etruscan maritime sites, Pyrgi is an exceptional case study because of the available evidence and the possibility of a full investigation of its different topographical components. The study of the urbanistic asset of Pyrgi's settlement (only partially overlapped by the Roman Colony and the medieval Castle) and the arrangement of the sacred areas is favoured by their abandonment after the phase of Romanization and by the possibility of performing large-scale research over its territory. For this reason, the informative potential of Pyrgi is exceptional and it will also shed light on the urbanistic choices of the *metropolis* Caere.

Pyrgi, a site that played different functions (harbour, settlement, sanctuary), was a fundamental pole of attraction for foreign hunters as the sea outpost of one of the main Etruscan towns, as stressed by the large ancient road connecting Caere to Pyrgi, comparable to the one linking Athens to the Piraeus (BELELLI MARCHESINI, BIELLA, MICHETTI 2015; MICHETTI 2015) (Fig. 1). Its development was strictly linked to Pyrgi's favourable geographic position along the Tyrrhenian maritime routes (MICHETTI 2016).

The excavations funded by the Sapienza University of Rome since 1957 – “Grandi Scavi di Ateneo” – have brought to light a large sacred district, including the Monumental Sanctuary of *Uni-Astarte* (see recently BAGLIONE, MICHETTI 2015) and a demetriac cult place – the most ancient so far known in Etruria – dedicated to the couple of deities *Šur/Šuri* and *Cavatha* (BAGLIONE, GENTILI 2013).

Whereas the architectural features and cultic aspects of the two sacred areas are already well-known to the scholars, the presence of a block of ceremonial buildings N of Temple A could not be detected before 2009, when the excavation began in this area.

In the same year, a wide-range research about the territory of Pyrgi started thanks to the involvement of an interdisciplinary équipe (scholars from six Departments of Sapienza University and other Institutions) in order to reconstruct the original landscape and the evolution of the coastline, as to figure out the morphology of the littoral and the harbour in the Etruscan period.

The new excavation area falls in the district between the sanctuary and the settlement (BAGLIONE *et al.* 2010; BAGLIONE, BELELLI MARCHESINI 2013; BAGLIONE 2014; BAGLIONE, BELELLI MARCHESINI 2015; BAGLIONE,



Fig. 1 – Aerial photo of the coast of Pyrgi: the harbour’s underwater structures, the settlement, the Caere-Pyrgi road and the sacred district.

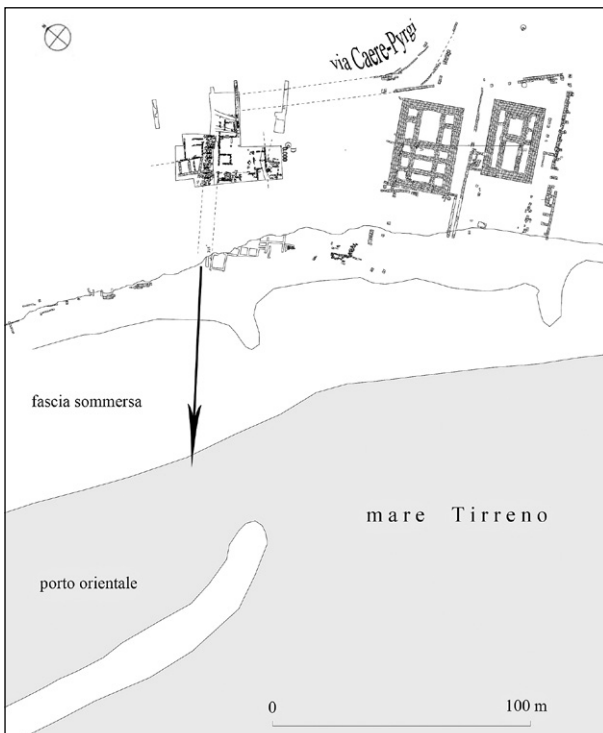


Fig. 2 – The sacred district on the right (Monumental Sanctuary and Southern Sanctuary), and the new excavation area on the left.

MICHETTI 2017) (Fig. 2). It includes different buildings (600 BC-4th century BC) – some of them provided with decorated roofs – erected along a pebbled road that departs from the Caere-Pyrgi road and leads towards the harbour. The buildings, together with votive deposits and a fire-altar, outline a residential quarter that was maybe attended by priesthood, where ceremonial practices were also performed. Such buildings date before the implantation of the Monumental Sanctuary.

The new evidence can be related to the Sanctuary itself, shedding light on its overall organisation, according to the same model of the main emporic sanctuaries of the Mediterranean. The results of recent fieldwork are also contributing to a better knowledge of Pyrgi's urban asset (viability, cadastral divisions and functions of plots), possible defensive systems (evocated by the Greek name *Pyrgoi*) and the topographic relation with the later Roman maritime colony.

L.M.M.

2. METHODOLOGICAL APPROACH

As regards the innovative technical aspects of the research, since the electric railway line and the magnetic ferrous sand have so far affected geophysical prospections (DI NEZZA, DI FILIPPO 2014), new electro-magnetic methods and instruments (multibeam and slingram) are being experimented in the strip of land immediately N of Temple A (ORLANDO, IOLI, in BAGLIONE *et al.* 2017); results are being compared and tested by excavation.

Virtualisation will help further scientific research and allow knowledge sharing and dissemination. The two Temples A and B were carefully studied and published. A project regarding their virtual reconstruction through the 3D acquisition of structural remains, terracotta revetments and furniture has recently been promoted in order to improve the dissemination and preserve this exceptional context, which is being dismantled by the sea ingression, for cultural heritage (Fig. 3).

In the same way, the buildings and stratigraphies included in the new excavation area are being documented in 3D by means of photomodelling techniques and loaded on a same GIS platform, as to make an overall reconstruction of the sacred area and its infrastructures possible.

As regards the study of the Etruscan site on a large scale, the hypothetical reconstruction of its original environment will be based on the acquisition of its present morphological features by means of drone or other flying devices (*ala planare*), combined with the results of tomography. In relation with the fruition of the archaeological area by a public of both scholars and non-specialists, a specific project, also including a virtual tour, has been elaborated.

B.B.M.

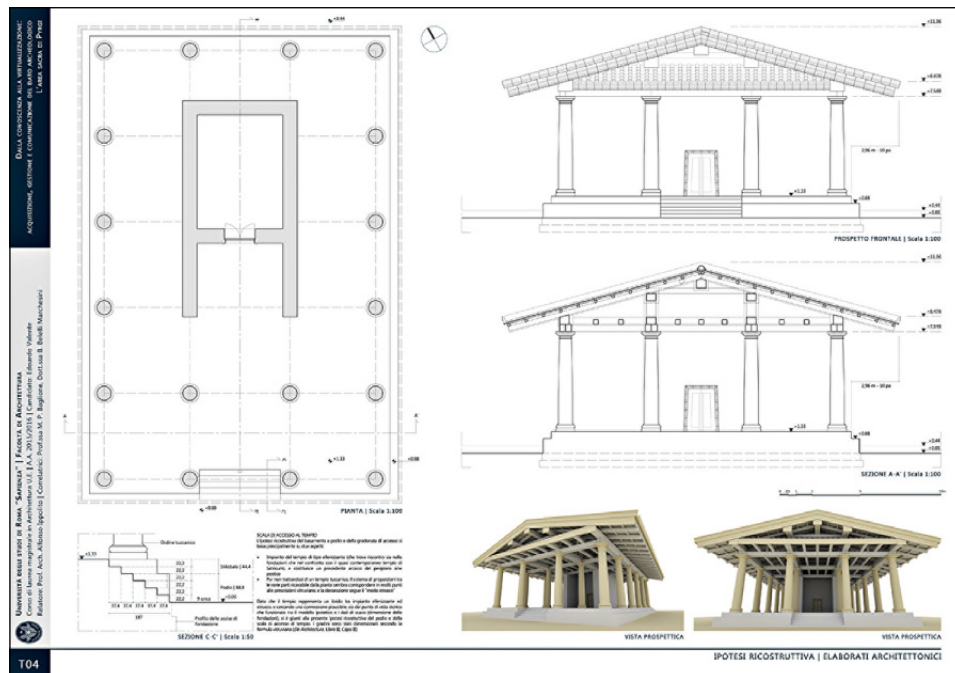


Fig. 3 – 3D reconstruction of Temple B. Graphics: E. Valente, Sapienza University of Rome.

3. THE LANDSCAPE

The still ongoing ingression of the sea and the alluvial deposits have radically altered the original environmental frame of Caere’s main harbour, which was the first to be encountered along the Etruscan coastline sailing up the Tyrrhenian sea. The site was originally endowed with the availability of fresh water and a suitable coastal morphology, which favoured its attendance since the Neolithic period.

Fresh water was first of all provided by a still plentiful water spring located inside the precinct of the so called Vigna Murata, at a short distance from the Etruscan Sanctuary, and by the rivers crossing the coastal plane, e.g. the ancient river C bed which is presently submerged in front of the medieval Castle of Santa Severa. Evidence of human presence from the Neolithic up the Recent Bronze Age is given by the shards collected from the area of the Monumental Sanctuary (G. Colonna, in *Pyrgi* 1970, 267-274), the spring itself and the site of La Torretta (COLONNA 2010-2013; ENEI 2011), whereas the many stone anchors collected from the seabed generally refer to sailing activities performed up to the Etruscan period (ENEI 2011, 25-26, fig. 11).

According to a recent study about the local variation of the sea level over the last millennia (ENEI 2011), during the Neolithic period the shoreline was located approximately 500 m seaward. It described a large embayment delimited by promontories, respectively protruding in front of the site Grottini di Santa Severa and the site Macchia Tonda, the latter one faced by two large islands.

In the Etruscan period, the shoreline of Pyrgi was located 70-80 m seaward, and the sea level was about 1.50 m below present (ENEI 2008, 21). Evaluation is based on the evidence of several submerged water pits belonging to the settlement area, remains of monumental buildings in *opus quadratum* and on the identification of the harbour's artificial structures (ENEI 2008, 63-66; 2013, 326-330). The harbour included two different but connecting basins: the basin to the W was related with the ancient river bed, which was turned into a channel and reinforced with two lateral jetties; the basin to the E was protected by a substantial artificial dock, 200 m long and running parallel to the coast.

The ongoing revision of the geological map (DI NEZZA, DI FILIPPO 2014) is providing precious information about the morphological asset of the coastal plain, which is nowadays mainly featured by Olocenic alluvial deposits and limited rocky outcrops (Flysh); the main one corresponds with the promontory that marked the northern limit of the Etruscan settlement and faced the western port-basin.

The surroundings of the settlement were portrayed by marches and most probably underwent drainage interventions starting from antiquity.

At the present stage of research, gravimetric measurements confirm the presence of a vast shallow area N of the Etruscan settlement, which needs further investigation in order to establish whether it could have been used in connection with the Etruscan harbour: some linear traces which are well visible on the RAF's aerial photographs may refer to artificial retaining walls as well as to later drainage canals (COLONNA 2000, fig. 3).

The settlement area is being investigated through geophysical tomography and corings in order to reconstruct the profile of the bedrock and to fully understand the way the settlement adapted to the original ground level. Full information is available for the present excavation area and the Monumental Sanctuary (ORLANDO, IOLI, in BAGLIONE *et al.* 2017).

In the Etruscan period, a main river was diagonally crossing the plain; according to COLONNA (2000, 260, 263) it also collected the water of the spring.

B.B.M.

4. URBANISTIC PLANNING

The settlement of Pyrgi extended over about 10 ha along the shore and it was arranged in two different urban districts, respectively facing the two port-basins, divided up by a main pebbled road (BELELLI MARCHESINI *et al.*

2014, 220). The northern district, to be considered the *arx* of the settlement, laid upon the rocky promontory and it was later overlapped by the Roman colony. The other district, nowadays crossed by the modern Fosso del Caolino, included *opus quadratum* buildings and maybe a huge open-air space (agora?) partially dismantled by the sea and was delimited to the S by another large pebbled road, departing from the track of the Caere-Pyrgi and leading to the oriental harbour (BELELLI MARCHESINI 2013, 261). The ongoing excavation (see *infra*) is highlighting the possible function of this road as the boundary of the sacred district, which developed in a peripheral shallow area and was crossed by the river: the Monumental Sanctuary, apparently lacking a *temenos* wall to the N and possibly related with the ceremonial quarter coming to light, and the Southern Sanctuary.

Taking into account all the available data, Pyrgi's urban plan depended on the final track of the Caere-Pyrgi road, which bent behind Temple A, ran parallel to the coast and played the function of inner limit of the settlement area. Such road ran on top of an artificial embankment and was probably flanked by a deep channel to the E, as suggested by the geophysics. As regards the Monumental Sanctuary, the track of the road seems to affect the oblique orientation of its eastern *temenos* wall.

As regards the asset of the settlement, the stratigraphy section cut by the sea shows blocks of houses divided by minor roads and provided with courtyard and pits; on account of the available information, it is possible to state that the orientation of the roads and the intermediate lots was not strictly ruled but affected by the shoreline.

The settlement was founded on top of an artificial layer, including abundant crushed pottery, maybe the result of previous activities (briquetage?). Its foundation has been dated to the end of the 7th century BC (COLONNA 2000, 257); a slightly earlier chronology is suggested by the results of the ongoing excavation (BAGLIONE *et al.* 2017).

B.B.M.

5. ARCHITECTURAL FEATURES

Whereas residential structures were commonly built with locally available stones, the use of Caeretan red tuff underlines the direct responsibility of the mother-town in the urbanization of the littoral. The use of tuff is precociously documented in the Caere-Pyrgi road and in the Quarto di Monte Bischero's tombs, in the immediate hinterland, and it features the Monumental Sanctuary and main infrastructures and buildings starting from the second half of the 6th century BC.

The architecture of Temples A and B is well known, as well as the demetriac feature of the small sacred structures of the Southern Sanctuary; both



Fig. 4 – Plan of the new excavation area.

areas have provided evidence of decorated buildings at an early stage (around 530 BC). The new excavation area (Fig. 4) is providing on the other hand precious information about the layout of the settlement since the moment of its foundation (late 7th century BC).

As for the archaic phase, evidence of ritual actions, the incidence of depurated and imported ware and the presence of decorated roofs suggest to identify this area as a “ceremonial quarter”, endowed both with residential and public function, connected with the development of the nearby sacred area and possibly functional to it.

Excavation brought to light several structure along the pebbled road departing from the Caere-Pyrgi road: on the northern side, a trapezoidal tower-building (around 500 BC) featured by a peculiar foundation rite (the deposition of a disarticulated dog); on the southern side a palatial complex, featured by rows of rooms overlooking a central courtyard. This complex underwent several renewals, which were marked by ritual actions: the most

meaningful one is the deposition of 30 loomweights, a brazier, jars and elements of an archaic roof inside a pit at the intersection of the two roads. Such deposit, allusive of the female sphere, was meant to mark the restoration of the E wing of the complex, that was featured by a row of rooms preceded by a portico (“Edificio porticato”) and provided with Campanian and Caeretan style decorated roofs (540-520 BC).

The western wing of the complex has only been partially brought to light and includes a basement, paved with limestone slabs (early 5th century BC), maybe belonging to an altar. Monumental underground drainage channels, made with tuff blocks and drafting the water towards the hinterland, feature this district.

On the southern side of the palatial complex, another block of buildings develops in the direction of the Monumental Sanctuary, as also revealed by the geophysics. Further field-research will help to understand its topographical relation with Temple A, given the lack of the *temenos* wall on this side.

L.M.M.

6. CONCLUSIONS

The district that is undergoing excavation highlights the intervention of Caere’s political authority to control its main harbour, through representative buildings and structures erected at the arrival point of the Caere-Pyrgi track, erected before *Thefarie Velianas’* monumentalization of the Sanctuary around 510 BC.

On the other hand, the full development of the wide peripheral sacred district radically modified the coastal landscape, inserting a double pole of attraction: the couple of Temples of the Monumental Sanctuary and, to the S, the cult place attended by foreign haunters and suitable for initiatic rituals. Both the sacred areas are included in the same political plan of the mother-town, aiming at the self-representation in a Mediterranean perspective.

As a matter of fact, buildings and infrastructures connected with main sanctuaries are well-known in the Greek and Greek colonial world, but not in the Etruscan environment. It is therefore evident that the ongoing excavations at Pyrgi will provide fundamental information about cultural connections and sharing of urbanistic models.

M.P.B., C.C.

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ABSTRACT

The study of the urban alignment of the settlement of Pyrgi and of the arrangement of the sacred areas was favoured by its abandonment after the phase of Romanization and by the possibility of performing large-scale research over its territory. The harbour and the sanctuary of Pyrgi were a fundamental pole of attraction for foreign hauners as the outpost of the metropolis of Caere. Their development was strictly linked to Pyrgi's favourable geographical position along the Tyrrhenian maritime routes and to the presence of a water spring. The settlement was founded at the end of the 7th century BC, and was connected to Caere by means of a large road. The excavations conducted since 1957 by the Sapienza University of Rome next to the terminal section of the Caere-Pyrgi road brought to light a large sacred district. The new excavation area (2009-2016) is located in the district between the sanctuary and the settlement. It includes different buildings datable to 600 BC-4th century BC erected along a pebbled road that departs from Caere-Pyrgi and leads towards the harbour. The buildings, together with votive deposits and a fire-altar, outline a residential quarter that was perhaps attended by a priesthood, where ceremonial practices were also performed. The new evidence can be related to the sanctuary itself and sheds light on its overall organisation. The results of recent fieldwork have also contributed to a better understanding of Pyrgi's urban alignment, possible defensive systems (suggested by the Greek name *Pyrgoi*) and the topographic relationship with the later Roman maritime colony. Thanks to the involvement of scholars from different disciplinary fields, wide-range research is being carried out to reconstruct the original landscape and the evolution of the coastline, with an aim to determining the morphology of the coast and the harbour in the Etruscan period.

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