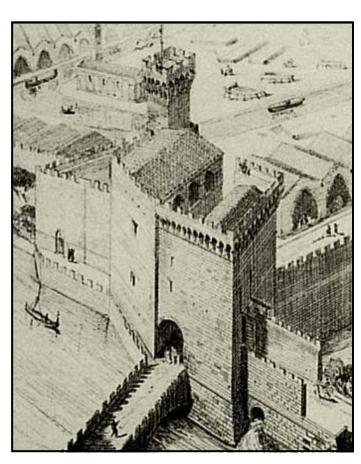


THE TERZANAIA

THE ARSENALS



THE ARSENALS

"Terzanaia" is a name that means little to today's Pisans. Yet, when one mentions the "Cittadella" (citadel), everyone immediately knows which area is being referred to. This highlights the significant loss of historical memory that has



accompanied the city since the Florentine occupation of 1406. Why is that?

This area, located on the northern bank of the Arno River at the western edge of the city, was in fact crucial for medieval Pisa: it was here that the **shipyards of the maritime Republic** were situated, the very heart of its power at sea.

At the time, the area was bordered by several canals that crossed marshy lands. Close to the Arno and the Ozzeri River, there were port structures that were gradually expanded into naval arsenals, known in Pisa as the **terzanaia** or, in abbreviated form, **arzanà**.



The term comes from the Arabic dâr as-sinâ'a (دار الصناعة), meaning "house of industry," from which the modern word darsena (dockyard) also derives. The name itself reflects the area's function: the construction, maintenance, and arming of ships, as well as maritime military logistics.

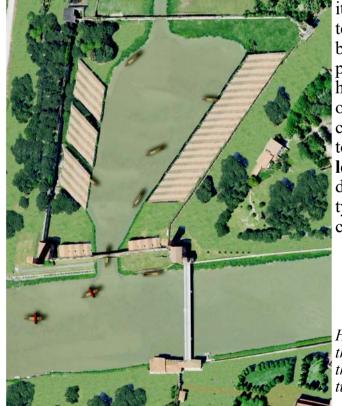
According to chronicles, the republican arsenals were founded

around the year 1200. The area, covering approximately 56,889 square meters, included between 60 and 80 covered ship bays, as well as a basin for hauling and maintaining vessels. In 1289, at the southeast corner of the city walls, the **Ghibelline Tower** was built—ironically, using bricks recovered from houses that had belonged to the Guelphs. Next to **Porta Degathia** (the customs gate), the **Ponte a Mare** bridge was also constructed.

As the 14th century progressed, the productive function of the Terzanaia began to change: the area was increasingly used as a depot and weapons factory. Under the rule of Iacopo d'Appiano (1394), the zone was transformed into a fortified citadel, with the addition of the **Torre del Leone** (tower of the lion) to the southwest, the **Torre del Canto** (tower of the corner) to the northwest, the Torre di Sant'Agnese to the northeast, the raising of the walls, and other defensive works.

Over the years, various proposals have been put forward involving the partial reuse of the remaining structures from Michelucci's project, or the use of the area for temporary events such as fairs, festivals, and concerts. However, none of these initiatives have truly addressed the core issue: the enhancement of one of the most significant places in Pisa's history.

It is paradoxical that the very area where the republican arsenals once stood—the productive and symbolic heart of Pisa's Maritime Re-

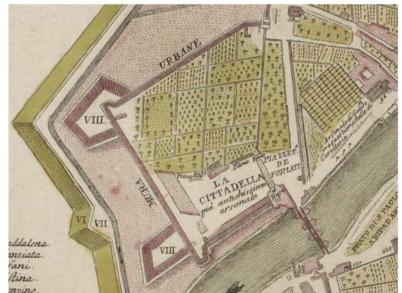


public, the nerve center of its naval power and Mediterranean identity—has been neglected in favor of projects that disregard its historical value. In any other European maritime city, such a site would today be a major archaeological and cultural park, deeply woven into the city's narrative and embraced as shared heritage.

Hypothetical reconstruction of the arsenals during the time of the Republic (13th–14th century)

In 1405, during a citywide revolt against Gabriello Maria Visconti of Milan, the Cittadella was partially destroyed by the Pisans themselves. However, following the Florentine conquest the next year, in 1406, the area was rebuilt: the new authorities brazenly dismantled numerous surrounding buildings—including the churches of San Ranieri and Sant'Agnese—in order to reuse their materials for the new fortification. In this context, the Ghibelline Tower was rebuilt and renamed the **Guelf Tower**, while the Torre del Canto was transformed into the **Bastion of San Giorgio**. The Florentine intervention was not merely military but also symbolic: erasing the traces of republican Pisa was a way to visibly and permanently assert the new ruling power.

In the 16th century, the Terzanaia gradually lost its strategic importance, especially after the construction of the Cittadella Nuova (New Citadel). The area was considered weak and outdated in light of new defensive needs. During the rule of Cosimo I de' Medici, the Botanical Garden (Orto Botanico) was established there in 1543, initially known as the giardino dell'Arzinale, and intended for the cultivation of medicinal plants. However, this first layout was short-lived: by 1563, it had been moved near Piazza delle Gondole, to an area that still preserves its legacy in the street name Via del Giardino, and finally relocated to its current site next to Via Luca Ghini in 1591, where it still exists today as the oldest botanical garden in the world still in operation.



Detail from the 1777 map.

The green areas can be seen, which once formed part of the original Giardino dei Semplici (by the time of the map, already in its current location).



The Ponte a Mare, in a painting by Jakob Philipp Hackert from 1799

In 1548, construction began on new arsenals near the church of San Vito, while the former republican shipyard area was repurposed to house a cavalry barracks. In 1860, with the unification of Italy, the large barracks of the 7th

Field Artillery Regiment were built, while in 1869 the Ponte a Mare collapsed.

During the Second World War, the Terzanaia suffered heavy damage, though the barracks were spared; they were instead dismantled in the postwar period to make way for an ambitious project: the creation of an International Institute of Physics dedicated to Galileo Galilei, featuring elevated lawns and a basin for hydraulic experiments. The commission was entrusted to **Giovanni Michelucci** in 1958, but despite the considerable investment, the project was only partially realized. The few structures that were completed today stand in a state of severe neglect.

The Guelf Tower, however, was rebuilt after the war—similar, though not identical, to the original medieval tower. The Torre del Leone (Lion Tower), on the other hand, remains in ruins. More recently, the Torre Sant'Agnese has been restored, and the recovery of the Bastion of San Giorgio is currently underway.

The barracks of the 7th Regiment after the end of the Second World War. The 7th Regiment owes its fame to the capture of Rome through the breach at Porta Pia in 1870.





The only project completed so far has been the restoration of the last surviving section of the medieval arsenals, which had long been in ruins. The work, finished in 2015, restored the missing arches and initiated an archaeological excavation in the surrounding area.

Today, this structure hosts exhibitions and events, but it represents only a small fraction of what could, and should, have been done.

The rest of the Terzanaia is still waiting for justice. A redevelopment plan is currently underway for the so-called "Cittadella Park," with green spaces, play areas for children, and venues for performances. A commendable initiative, certainly—but one that could have been carried out elsewhere, leaving the Terzanaia the chance to become an open archaeological park, connected to the Museum of Ancient Ships, capable of restoring to the city and its visitors the sense of greatness of Pisa's maritime legacy. Because it was from here, from its arsenals, that Pisa once sailed the Mediterranean.



Rendering of the project for the "Cittadella Park," from PisaToday

THE STRUCTURE

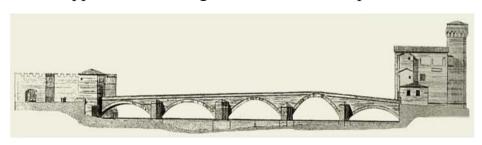
Pisan ships were built and repaired within the republican arsenals. Once the structural part was completed—still lacking masts and armaments—they were launched through the so-called **Porta delle Galee** (Gate of the Galleys). Here, on the banks of the Arno, the final stages of ship construction took



place, such as the installation of masts and final outfitting.

Another fundamental structural element was the **Ponte a Mare** (Sea Bridge), built with five arches of varying height, allowing the passage of small low-masted boats, but not large warships. The bridge thus served as both a natural defensive barrier and a strategic infrastructure for river control.

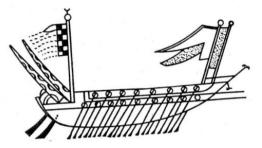
As was customary at the time, each important bridge was flanked by places of worship: a church or an oratory on either bank, where travelers could say a prayer before crossing. We know that on the northern bank there was initially an oratory, later rebuilt on the southern side next to the Porta a Mare, and dedicated to **Santa Maria delle Nevi**. This building was demolished by the Florentines after 1406, and its materials were reused for the construction of the new fortified citadel. On the northern bank, near the monastery of **San Vito**, where San Ranieri, the city's patron saint, spent his final years, there is also speculation about the existence of another oratory dedicated to him, which likewise disappeared following the Florentine occupation.



The Ponte a Mare in a 19th-century print

Inside the arsenals, there was also a church dedicated to Saints **Barbara and Reparata**, consecrated in 1264 by the then-Archbishop Federico Visconti, highlighting the spiritual importance of this complex as well.

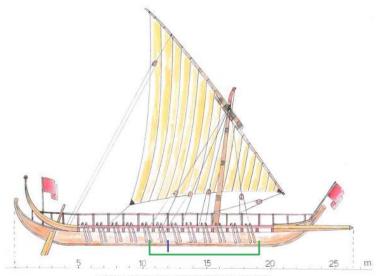
As for Pisan galleys, unfortunately, the sources are scarce. The only reliable iconographic evidence comes from two illuminated manuscripts: one from 1047, preserved in Madrid, and another from the



late 12th century, kept in Paris. These images suggest that the Pisan galley was an evolution of the Roman trireme, with a slender hull, famous for its speed, and two banks of oars. At the stern, two upward-facing protrusions can be seen, sometimes connected by a crossbeam: this

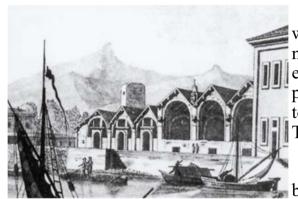
structure was used to support and secure the mast when it was lowered, for example, to pass back through the Porta delle Galee when the ship required maintenance within the arsenals.

For a highly detailed hypothetical reconstruction of a 12th-century Pisan galley, see the Facebook page of Massimo Guerrini: https://www.facebook.com/MareManducans



THE MEDICI ARSENALS

Although not strictly part of the original Terzanaia complex and the old Cittadella, the **Medici Arsenals** are inextricably linked to them by function, location, and historical continuity.



Born in a different era and with different purposes, they nonetheless represent the natural evolution of Pisa's ancient shipbuilding vocation, projected into the context of Grand Ducal Tuscany.

The Medici Arsenals were built in the second half of the

16th century by order of Grand Duke Cosimo I de' Medici, with the aim of providing the Order of the Knights of Saint Stephen with suitable facilities for the construction of galleys tasked with patrolling and defending Mediterranean routes. Originally, the ship sheds were only two and were open at the front, allowing for the direct launching of vessels into the Arno through wide bays.

Over time, the structure was expanded to the eight bays that still define its appearance today. With the end of its shipbuilding function and the decline of Tuscany's military fleet, the arsenals were partially

closed and repurposed under the rule of the House of Lorraine: they were converted into stables, specifically for the horses of the **Dragoons**, the Grand Duchy's cavalry troops.





The horse stalls integrated into the current Museum of Ancient Ships

In 1867, following the unification of Italy, the entire complex became home to the **Royal Stallion Depot** (Regio Deposito Cavalli Stalloni), which was transferred from Florence. To meet its new purpose, significant structural modifications were made: seven bays of the easternmost building were demolished to create a large central cour-

tyard; moreover, the roofs of the three westernmost aisles

were raised to match the height of the others, and numerous horse stalls were constructed. It was during this phase that the arsenals assumed their final layout: eight large adjoining sheds with a uniform appearance, and a lower building attached to the left side.

This configuration remained unchanged until 1944, when a bombing raid during the Second World War caused the western section of the complex to collapse. From that point on, the site underwent a slow and steady decline, interrupted only recently by the architectural restoration linked to the creation of the **Museum of Ancient Ships** of Pisa, which is now housed in these very spaces.

The interior of the Museum of Ancient Ships, a cultural venue that brings together discoveries from the river port near San Rossore with artifacts from prehistoric, Etruscan, Roman, and medieval Pisa.





Watch on **YouTube**: Evolutionary Dynamics of the Pisan Arsenals from Their Origins to the Present Day, by Alessio Cordisco.

https://youtu.be/5dPvtr8TSYQ



Suggested readings:

• E. Tolaini, Le mura del XII secolo e altre fortificazioni nella storia urbana di Pisa, Pisa, Bandecchi e Vivaldi, 2005

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