



MANTUA FORTRESS

A STORY OF ART AND WAR

MANTUA FORTRESS

Over the centuries, Mantua has borne witness to battles and conflicts that devastated northern Italy. Characterised by its fragile balance between land and water, the area was incorporated into the fortified systems that various state powers developed over time, to meet new defensive needs and respond to the constant evolution of the art of war. However, the city of Mantua in particular assumed significant strategic-military value due to its specific geographical conformation.

Indeed, long reliant on a simple city wall dotted with occasional towers and ramparts for additional protection, the city has been surrounded by the waters of the Mincio River since its founding. Over the centuries, these waters enhanced its defence, ensuring its impregnability and reputation as an invincible city.

For about four centuries, the capital of the Gonzaga state was ruled by the Gonzagas themselves, who were often concerned with systematically strengthening its defences. However, it was at the beginning of the 18th century that the defensive and strategic-military value of the city, which had always been recognised and acknowledged, took on a completely new meaning. With its final annexation to the Hapsburg Empire, sanctioned by the Diet of Regensburg in 1708, Mantua suddenly and definitively ceased to be the capital of a duchy and was transformed into a provincial capital. Due to its unique geographical features, it was immediately made the main fortress for defending northern Italy's imperial territories. This role and function ensured Mantua's involvement in the main events of the succession wars in the first half of the 18th century and, subsequently, the Napoleonic campaigns and Risorgimento wars.

Thus began the process of widespread militarization that has shaped the history of this territory and determined the gradual transformation of Mantua into a fortress-city. This transformation was undertaken by French and Hapsburg military engine-

ers, who designed and constructed important and substantial works such as ramparts, forts, lunettes, embankments and trenches: in other words, the components of a fortified system that transformed the city into an effective defensive machine, whose operation relied not only on simply controlling the territory, but also, to a great extent, on correctly managing the water system.

The final defensive structure of Mantua fortress was devised in the early 19th century by Napoleon's men, who designed and partially implemented the interventions that gave the city the structure of a large river stronghold, under the guidance of general and military engineer François de Chasseloup-Laubat. However, it was during the 19th century, with the return of the Austrians, that Mantua also became an integral part of the 'Quadrilatero': one of the largest defensive systems on a territorial scale of the modern era, it was conceived by field marshal Josef Radetzky to combine the potential of the courses of the Mincio and Adige Rivers with that of the Peschiera, Mantua, Verona and Legnago fortresses. The military importance attributed to the city of Mantua and its territory was confirmed even after its annexation to the Kingdom of Italy, at least until the First World War, albeit in a second-line role and with different defensive designs. However, it was eventually lost in the following years, with the consequent decommissioning and dismantling of many of the structures.

As for the area's remaining structures, some present features of the most refined and architecturally advanced fortification models, as well as the skill and talent of military engineers in incorporating local building traditions into the style of the works, while other sites and monuments represent a past that is harder to define. These are essential components of the landscape and silent witnesses of the military history of the city and its territory, which still evoke some of the clashes and battles that shaped European history.



IN MANTUA...

- 1** Cittadella di Porto
- 2** Andreas Hofer Park
- 3** Fossamana lunette
- 4** Rocchetta di Sparafucile
- 5** Monument to Pietro Fortunati Calvi
- 6** Lunetta Frassino
- 7** Ponte di San Giorgio bridge
- 8** Former military graveyard area
- 9** Former military area of San Nicolò
- 10** The Walls
- 11** Tombstone in memory of fortress commander Otto Von Wallsegg
- 12** Trinceramento del Migliaretto
- 13** Entrenched field
- 14** Paiolo Valley
- 15** Monument to the Belfiore martyrs
- 16** Belfiore martyrs memorial stone
- 17** Ponte dei Mulini dam-bridge

IN VIRGIL...

- 18** Pietole fort

1 CITTADELLA DI PORTO

Sections of the curtain wall, the Bastione della Madonna bastion, Porta Giulia, the dock of the Canottieri Mincio sports club and the nearby gunpowder magazine are all fragments of the ancient Cittadella di Porto.

The Cittadella di Porto, or Porto fortress, was built between the 16th and 17th centuries as an isolated or isolatable fortified outpost connected to the city. For many years, it served to defend the Ponte dei Mulini dam-bridge, which, in addition to providing access to the city, was a fundamental hydraulic structure for the lake regulation system (fig. 1).

From 1529 onwards, the construction of the Cittadella took up most of the financial resources of the Gonzaga state. A first design was presented by Lorenzo Leonbruno, but the responsibility for its construction was entrusted to Capino de Capo, and later the engineer Carlo Nuvoloni, who supervised the work for about twenty years and to whom the design of the entire fortress is attributed. Construction was halted in 1538, but in 1542 Cardinal Ercole Gonzaga and Margherita Paleologa decided to complete the fortress, which, contrary to what was commonly believed in 1569, remained unfinished.

The irregular pentagonal structure with wedge-shaped ramparts can be seen today in the Baluardo della Madonna, inside the Canottieri Mincio sports club (fig. 2). Between 1542 and 1549, the new Porta Giulia, whose name seems to derive from its proximity to the church of Santa Giulia which once stood nearby, was incorporated into the eastern curtain wall according to a design



1 - View of Mantua and Cittadella di Porto dating back to 1849 (ANV, Raccolta Balzanelli, F1 III 56).

by Giulio Romano.

This gate, built in the Doric style, is based on ancient triumphal arches and evokes the forms of Palazzo Te. Its unusually large classical interior hall with vaulted roof and walls modulated by a sequence of pilasters, arches and faux architraved doors is still impressive today.

At the beginning of the 18th century, as soon as the Austrians took possession of Mantua, reconstruction and reinforcement works involving the addition of external structures were planned for the Cittadella di Porto citadel. New works were also carried out in the 1750s under the direction of engineer Nicolò Baschiera: the inner basin was transformed into a military dock that would serve as a fundamental river connection with the city in the event of a siege, and a new gunpowder magazine, which is still an example of the craftsmanship and technique of the Habsburg military engineers, was built nearby.

The Cittadella di Porto citadel fulfilled its function until 1866, when the annexation of the city to the Kingdom of Italy marked the beginning of the gradual loss of Mantua's long recognised strategic-military role. . The subsequent expansion and needs of the modern city, together with bombings during the Second World War, contributed to the destruction of much of this imposing defensive work.



2 - Cittadella di Porto, detail of the Baluardo della Madonna.

2 ANDREAS HOFER PARK

The small park near Porta Giulia commemorates the sacrifice of Tyrolean patriot Andreas Hofer (fig. 3). Hofer was born on 22 November 1767 in St. Leonhard, in the Passeier Valley. He led the anti-Bavarian Tyrolean uprising of 1809 and became the supreme commander of Tyrol. He was forced to flee after peace was declared in Schönbrunn. After being betrayed, he was arrested on 28 January 1810 and taken to Mantua to be tried before the military tribunal.

It was the evening of 5 February 1810 when he arrived in Mantua with his companion Kajetan Sweth. They passed under the arch of Porta Giulia and were locked up in cell number 1 on the first floor of Torre del Vaso. The people of Mantua, moved by the courage and moral rigour shown by the patriots, spontaneously collected 5,000 scudi and offered them in exchange for their lives. However, Napoleon Bonaparte had ordered his adopted son Eugenio, Viceroy of Italy, to bring Hofer before a "military commission" to try him and have him shot.

The trial took place on 19 February in Palazzo d'Arco. Hofer was assigned a court-appointed lawyer named Gioacchino Basevi, but there was no interrogation, only the reading of some reports signed by several military commanders. Moreover, Hofer was accused of being armed, in violation of the decree of amnesty of 12 November 1809.

As requested by Napoleon, the sentence had to be executed within twenty-four hours, so the shooting was arranged for the following day. On the morning of 20 February 1810, Andreas Hofer was taken to the place

of execution. He asked to be turned to face Tyrol and received a blessing from a Capuchin friar while kneeling. He refused to wear a blindfold for the execution and ordered the grenadiers to fire whilst he stood before them with open arms. The shots did not kill him, and a corporal had to end his life with one last bullet. It was 10:45 a.m. as a silent and moved crowd watched the execution.

Andreas Hofer's body was buried in the small cemetery

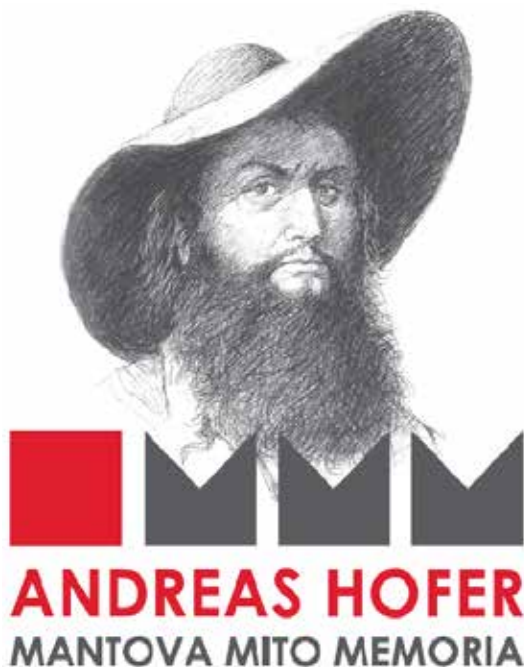


3 - Andreas Hofer Park, detail of the entrance.

next to the church of San Michele, which is no longer standing, in the Cittadella di Porto and was moved to Innsbruck's Hofkirche in 1823.

Two later tombstones can now be found at the entrance to the Cittadella gunpowder magazine. A marble slab featuring Hofer's initials, the date of his execution and 13 holes corresponding to the number of bullets shot by the firing squad, was also laid at his execution site as early as 1850.

After suffering damage, this first monument (now preserved in Innsbruck), was replaced several times, and in 1984, on the 175th anniversary of the Tyrolean uprising, the Andreas Hofer Park was opened. Every year on 20 February a commemoration organised by the Municipality of Mantua and delegations from Schützen honours the memory of the hero in this place. The "Andreas Hofer Mantova Mito Memoria" Space (fig. 4) was inaugurated in nearby Porta Giulia in February 2020, as a collaboration between the EGTC EUREGIO Tyrol-Adige-Trentino, the Municipality of Mantua and the Porta Giulia-Hofer ODV Association. The museum itinerary recounts the story of the Tyrolean – both a hero and historical figure – as well as the memorials erected on the site of his execution and the legend that has accompanied him ever since.



4 - "Andreas Hofer Mantova Mito Memoria" itinerary and space.

3/6 THE FOSSAMANA AND FRASSINO LUNETTES

During the 19th century, Mantua became an integral part of one of the most important territorial defensive systems of modern times: the Quadrilatero, a system designed to defend the imperial territories of northern Italy that combined the potential of the courses of the Mincio and Adige Rivers with that of the Peschiera, Mantua, Verona and Legnago fortresses. As a result of this role and importance, the city's defensive system was reinforced.

Indeed, between 1859 and 1866, Austrian military engineers built external structures and forts to enhance the stronghold, whose definitive fortification, already planned under Napoleon at the beginning of the century, was designed as a detached structure. In the specific case of Mantua, it was a grandiose hydraulic system that made the city into an imposing river stronghold.

In particular, between 1859 and 1860, the Frassino and Fossamana lunettes were built on the eastern front, which was already protected by the San Giorgio lunette, created by the French after demolishing the village of the same name. The Pompilio lunette was also built outside Porta Pradella, on the southern side of the Belfiore lunette, to defend the western front.

The Fossamana and Frassino lunettes, which are the only structures that have been preserved to date, were designed and built in a short time to flank the existing San Giorgio lunette (fig. 5). Designed and adapted to suit the morphology of the terrain according to precise ballistic calculations, these are detached structures with a polygonal layout on a pentagonal base, characterised by simple caponiers at the back corners and the facade

of the rectilinear, masonry gorge.

The embankments, reinforced externally by palisades and protected by a dry moat, were provided with emplacements for shooting with a barbette; the inner square house the trilobate courtyard, developed on one level only, with facades designed for shooting light weapons, with a covering of beams and earth. Under the embankments were logistic rooms and the gunpowder magazine (figs. 5–6). These features can still be seen in the Frassino lunette, which is more easily accessible and better preserved.

Immediately after completion, the defensive effectiveness of such structures was questioned, as they were judged to be too close to the “corpo di piazza” or “body of the square” (the city's strategically important central stronghold). However, they remained operational and were reinforced by raising the embankments and ramparts. They were also further modified in 1866, with the installation of protective crossbars in the artillery stations and the use of earth to cover all sides of the central courtyard, which were exposed to the enemy.

The lunettes were intended to house large guns of two different calibres, 11 of one and 9 of another, requiring a garrison of 120 men.

3/6 FOSSAMANA AND FRASSINO LUNETTES



5 – Fossamana lunette, detail of the gorge.



6 - Frassino lunette, detail of the internal courtyard.

LUNETTE An advanced external structure consisting of protruding corners and with two sides.

CAPONIER Defensive element placed inside the moat, armed with rifles and cannons.

GORGE Rear end of a fortified work, facing away from the enemy front.

EMBANKMENT Mass of soil deposited to provide shelter if placed outside the walls or reinforcement if placed inside.

COURTYARD Fortified structure built within a larger work, used for the defence of troops within military forts.

RAMPART Embankment in front of the moat serving to conceal the fortification from enemy sight.

4 ROCCHETTA DI SPARAFUCILE

The complex, originally known as Rocchetta di San Giorgio and only named Rocchetta di Sparafucile since the end of the 19th century, is all that remains of the fortifications of the village of San Giorgio, which once stood at the eastern end of the bridge of the same name. Records of the existence of the ancient village date back to 1116, but it was in the second half of the 14th century that Ludovico I Gonzaga, during interventions aimed at strengthening and enhancing the defences of his state, had the town surrounded by walls and probably equipped it with a fortress intended as a sighting tower. Reinforcement works on the walls and embankments of the village were carried out in the 15th century under the instructions of engineer Giovanni da Padova. The addition of quadrangular towers to the primary circle of walls protected by the moat probably dates back to the middle of the 15th century.

The structure remained substantially unchanged until the end of the 18th century, when, in Napoleonic times, three lunettes were built in front of the three openings in the Gonzaga walls, on the other side of the moat, to defend them. However, in 1801, as part of a plan to strengthen the defences of the entire fortress, the ancient village was demolished, considered unsuitable for the new defensive requirements.

The fortress was spared and incorporated into the new lunette, sited to defend the Ponte di San Giorgio bridge. It only definitively lost its defensive function in 1914, following the removal of the fortifications and its release from military use (fig. 7).



7 - Detail of the plan of the village of San Giorgio and the lunette of the same name taken from a map dating back to the beginning of the 19th century (private collection).

4 ROCCHETTA DI SPARAFUCILE

In the period following the First World War, the municipal administration promoted the dismantling of defensive works to allow the development of the city. The demolition of the San Giorgio lunette was part of these interventions, with the exception, once again, of the fortress complex (fig 8). After a long period of abandonment in the 1970s, the Province of Mantua restored and enhanced the complex, which became a youth hostel, only to be abandoned again in the 1990s and then partially restored in 2010.

The fortress, as it stands today, is composed of three buildings of different heights: the massive, old rectangular tower with windows and slits in the façades and the two crenelated buildings. It is the result of a lengthy string of interventions and multiple transformations, including the raising of the tower by one floor, the opening of new windows in the wall and the “regularisation” or enlargement of other existing windows, which have all altered the original appearance.



8 - Rocchetta di San Giorgio, also known as Rocchetta di Sparafucile before the restoration works of the 1970s (private collection).

5 MONUMENT TO PIETRO FORTUNATO CALVI

Not far from the Rocchetta di Sparafucile, close to Lake Mezzo and opposite the Castello di San Giorgio, lies a memorial stone in memory of the patriot Pietro Fortunato Calvi.

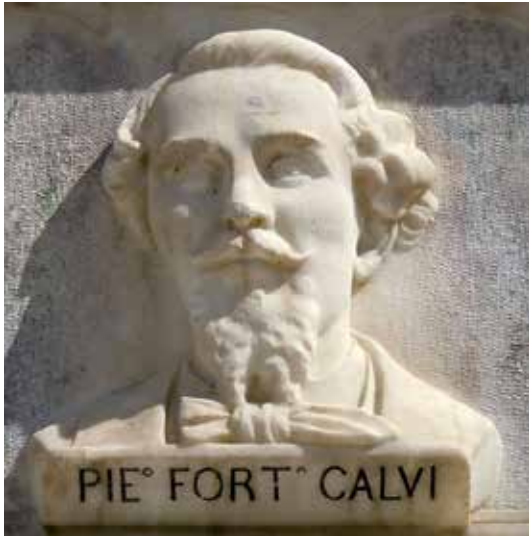
Calvi was born on 15 February 1817 in Briana, near Noale, which was in the province of Padua at the time. After completing his first studies at school in Padua, he underwent training at the Accademia Militare degli Ingegneri ("Military Academy of Engineers") in Vienna, leaving with the rank of ensign. He seemed destined for a brilliant career, but, while serving in Venice, he came into contact with patriotic circles and developed the idea of supporting the Italian cause.

In April 1848, he resigned from the army (after being promoted to first lieutenant) and moved from Graz to Venice, where the people had risen up against the Austrians and the Republic had been established. After making himself available to the provisional government, he was sent to Cadore with the rank of captain and called to organise and lead the armed resistance. Within a few days, he succeeded in forming an army of about 4,600 volunteers. The Cadore defence, however, had no resources and above all no external connections, and could not have resisted for long. Facing a massive attack by the enemy on the Carnic side, Calvi, deeming any resistance to be futile, dismissed the volunteers and went to Venice. After a brief period in Patras, he took refuge in Turin, where he joined Mazzini's circles. After being threatened with expulsion from the Sardinian States for his alleged collaboration in the insurrection attempt in Milan of 6 February 1853, he

sought refuge in Switzerland, first in Geneva and then Zurich, where, with the consent of Mazzini, he once again began promoting armed insurrection in Cadore and Friuli. Eager to take action, he crossed the Swiss border with a fake passport and entered Tyrol, where, in mid-September, he was found in possession of very compromising papers and arrested in Cogolo di Pejo. He was taken first to Trento, then Innsbruck, Verona and finally to Mantua, where he was tried first by a military court and then a civilian one. He was found guilty of high treason and sentenced to death.

During his long imprisonment, Calvi remained courageous and steadfast, calmly accepting the verdict and refusing to ask to be pardoned. His sentence was executed on 4 July 1855 in the ramparts of the San Giorgio lunette. In 1881, on the 26th anniversary of his death, the memorial stone recalling his sacrifice was inaugurated at the execution site in Mantua thanks to a citizens' initiative (fig. 9-10).

5 MONUMENT TO PIETRO FORTUNATO CALVI



9 - Portrait of Pietro Fortunato Calvi on the monument to the martyrs of Belliore (from Wikimedia - Massimo Telò).



10 – Monument to Pietro Fortunato Calvi.

7 PONTE DI SAN GIORGIO BRIDGE

The Ponte di San Giorgio bridge, which was constructed in wood at the beginning of the 12th century to link the village of San Giorgio to the city, was later rebuilt in masonry, thereby definitively dividing the lake downstream of the Ponte dei Mulini bridge into Lake Mezzo and Lake Inferiore. The Ponte di San Giorgio bridge was restored and covered at the beginning of the 15th century by Captain Francesco I Gonzaga. After the completion of the fortification works in the village of San Giorgio, which stood on the opposite shore of Lake Mezzo, the bridge took on an important role in the complex defensive system of Mantua, in which water was an irreplaceable means of defence. In 1634, the bridge covering, many parts of which had been damaged by artillery during the siege of the Lansquenets of 1630, was removed. Then in 1685 Duke Ferdinand Charles ordered the restoration of the structures after they were damaged by water. 1690 saw the partial demolition of the end of the bridge near the entrance to Mantua for strategic reasons. A light wooden structure was subsequently built, only to be dismantled and rebuilt in masonry in 1731. During the siege of the city in 1796-97, the bridge and the village were the setting for the battle of San Giorgio, which took place on 15 September 1796 (fig. 11).

The current structure is the result of interventions carried out during the 20th century.

Between 1919 and 1922, the 33 arches that made up the original medieval bridge were partially demolished and covered by an embankment, and an arch span was built in reinforced concrete. After being demolished in

1945 by the retreating German troops, it was rebuilt in 1946 based on a design by engineer Uberti, with funding from the Allies.

The cycle path and the cycle/pedestrian bridge started in the mid-eighties were completed in 1995.



11 - View of the city of Mantua from the side of the Ponte di San Giorgio bridge, besieged by the French army in 1796 and defended by the Austrian garrison (ANV, Raccolta Balzanelli, F1 II, no. 30).

8 FORMER MILITARY GRAVEYARD AREA

The garrison soldiers inside fortresses had, among other things, to be ensured a proper burial. This became particularly important in the 18th and 19th centuries, when febrile diseases linked to the climatic and environmental conditions of the city were contributing to a high mortality rate among troops. Archival papers show that, in the mid-18th century, soldiers were usually buried outside the city, in the village of San Giorgio. However, the distance made the transport of corpses difficult, and people quickly began burying the dead on the rampart near what is now Piazza Virgiliana. The protests of the population, exasperated by the odours coming from the numerous graves, led the authorities to restore the custom of burying soldiers in the village of San Giorgio while they sought a suitable place for a military cemetery within the city. After careful inspections and the appropriate evaluations, a privately owned piece of land in the south-eastern area of the city near Porto Catena (fig. 12) was chosen, and a revocation clause was used to create the general civil and military cemetery of the city of Mantua.

In 1786, the dispositions aimed at improving the sanitary conditions throughout populated areas of Austrian Lombardy decreed the unconditional removal of all burial places from inhabited centres, and in 1790, after numerous exchanges between the relevant authorities, the first extra-urban public cemetery, which included the military cemetery on one side, was opened in the village of San Giorgio, near the San Vito monastery.

A few days after the opening of the new cemetery, the military command returned the cemetery near Porto

Catena to its former owner. This was, however, a provisional solution: in 1797, according to the new dispositions issued by the French government, the cemetery of San Vito was, in fact, closed and transferred out of Porta Pradella.



12 - Map of the property of the Boccasanta heirs used as a military cemetery, made by Carlo Brunelli on 23 June 1770 (AArchivio di Stato di Milano, authorisation for publication no. 01/2013).

9 FORMER MILITARY AREA OF SAN NICOLÒ

Until a few decades ago, this site on the south-eastern edge of the city near Lake Inferiore so steeped in history was a large military area. Unfortunately, it remains inaccessible today.

At the beginning of the 15th century, Marquis Gianfrancesco Gonzaga granted the Jews a “piece of land” on which to build their own cemetery. However, this first burial place soon proved to be insufficient for the needs of a community that was becoming more and more important. Indeed, during the same century, the sharecroppers of the Jewish community acquired a new property for use as a cemetery not far from the previous one, which, due to the ban on exhumation imposed by Jewish religious laws, was enlarged and surrounded by walls over the following decades.

At the beginning of the 18th century, Mantua's role as a fortress, attributed in the wake of the city's annexation to the empire, led to the unconditional requisition of many properties and their subsequent conversion to military use. A process from which even the Jewish University did not escape. Indeed, 1739 saw the military purchase from Jewish sharecroppers a small house with a plot of land adjacent to the cemetery where part of the so-called San Nicolò gunpowder magazine had already been built. This magazine is still perfectly preserved within the large state-owned area.

In the following years, as part of the works to strengthen the fortress, the stretch of city walls that surrounded the area near the lake was provided with a new bulwark. The Jewish cemetery of Gradaro was used until the end of the 1880s, when, in line with the Giu-

seppine laws, which provided for the removal of all cemeteries from urban centres within Austrian Lombardy, without distinction of religion, it was transferred outside the city, to the village of San Giorgio, not far from the Christian cemetery of San Vito.

However, the area of the ancient Jewish cemetery of Gradaro remained the property of the local Jewish community.



13 - Former military area of San Nicolò, seen from the outside from Vicolo Maestro.

9 FORMER MILITARY AREA OF SAN NICOLÒ

During the 19th century, new works were carried out on the stretch of wall near the lake: reconstruction work was completed, new embankments were built and, in 1852, due to the growing needs of the fortress, the Jewish community was forced to sell the entire area of the ancient Gradaro cemetery to the military. Nevertheless, in accordance with the rules of the Jewish tradition, the deed of sale read that the terrain was to be used as grassland, the gravestones were to be preserved and community members had the right to access the area to pay homage to the deceased (fig. 13).

This area became part of the Gradaro barracks and saw the construction of the San Nicolò sheds, which housed the artillerymen of the 4th Anti-aircraft Regiment and their weapons. In 1943, after the violent raid by the German tanks of the Leibstandarte SS A. Hitler armoured grenadier division, the area was used as a concentration and sorting camp for Italian soldiers (petty officers and troops) captured on various fronts (fig 14). The entire area, which was given to the municipality of Mantua by the state property office in March 2017, has been included, together with the adjacent area of the former ceramics factory, in the Mantova Hub strategic plan for redeveloping and enhancing this urban area.



14 - Former military area of San Nicolò, detail of one of the entrances.

10 THE WALLS

Over the centuries, Mantua, protected by the waters of the River Mincio since its origins, has also been protected by walls. Indeed, the structure of the city was shaped by an expansion that took place in three consecutive phases.

A first circle of walls, dating back to the Middle Ages, was erected in an unspecified period probably after the year 1000, following the wide-spread process of urban rebirth throughout Europe. Starting in 1190, in parallel with the regulation of the Mincio water system by engineer Alberto Pitentino from Bergamo, the city experienced a phase of expansion that led to the construction of a second wall to incorporate the already inhabited land to the south-west as far as the artificial Rio canal. Finally, in 1401, Francesco I Gonzaga further divided the city into districts, including the whole area beyond the Rio canal. The urban centre therefore extended to the whole island area, outlining the position of the third circle of walls that defined the image of the city itself for centuries.

From the beginning of the 16th century, interventions to reinforce and strengthen the urban walls followed one after the other.

Brought about by the introduction of firearms, the innovations led Marquis Francesco II to consider a design for the reconstruction of the existing walls, which his son Federico then implemented in part. In 1521, the works proceeded under the direction of engineer and gunman Alessio Beccaguto, but were abruptly interrupted in 1528 due to his death. The only section to be worked on was between the Santa Maria del

Gradaro convent and Porta Pusterla, where two circular bastions were built: the Gradaro bastion (the only one preserved today, located inside the enclosure of the Valsecchi waterworks of the Consorzio Sud Ovest di Mantova consortium) and the bastion opposite the island of Te (fig.15).

Works resumed under the direction of man-at-arms Capino de Capo, who was able to introduce the most up-to-date concepts of military architecture and was intent, in 1531, on completing the polygonal bulwark of the south-west corner, dedicated, in honour of the protector of his predecessor, to Sant'Alessio.

New interventions were also carried out during the 17th century in order to adjust to changing military requirements and integrate a defensive system that gradually expanded through the addition of external structures. In the 18th century, when the city took on a fundamental



15. - The city walls in the view of Mantua drawn by Gabriele Bertazzolo in 1628 (Biblioteca Comunale di Mantova, prints, roll 1).

strategic and military role in defending the imperial territories of northern Italy, the city walls were further strengthened as part of a scheme for the entire defensive system of the fortress. During the 19th century, the city walls still enclosed the so-called “corpo di piazza” or “body of the square”, namely the centre of the city, now transformed into a stronghold, which was part of the wider defensive system known as Quadrilatero. In 1866, the city’s annexation to the Kingdom of Italy marked the gradual decline in its strategic military role, which led to the decommissioning and demolition of many of the defensive structures. Together with the works and the external forts, many of the walls that had characterised the closed, compact and impenetrable city known for centuries as “the fortress city” were also demolished (fig. 16).



*16 - Detail of the stretch of wall still standing alone in via Luca Fan-
celli.*

11 TOMBSTONE IN MEMORY OF FORTRESS COMMANDER OTTO VON WALLSEGG

Inside the enclosure of the Valsecchi water treatment plant of the Consorzio Sud Ovest di Mantova consortium (which regulates the flow into Lake Inferiore of the waters of the Fossa Magistrale, which is now underground but once ran close to the city walls) is a plaque in memory of His Excellency General Otto Von Wallsegg. This plaque was placed in a remaining stretch of the curtain wall, preserved together with the Gradaro bastion.

Von Wallsegg, who succeeded General Lionardo de' Stenks as commander of the fortress of Mantua in December 1741, had a new bulwark built along the stretch of wall where the ancient Jewish cemetery was located, between the churches of San Nicolò and Santa Maria del Gradaro. He also built a new earthen embankment along which the city could more quickly communicate with the outer Migliaretto fortifications. The embankment, which was completed by a wooden gutter, also made it possible to handle the flood waters anticipated between the entrenchment itself and the city walls. This helped to considerably improve the defence, but also the integrity of the entire area by protecting it from flooding.

These interventions received such positive feedback that the citizens decided to preserve their memory. Indeed, in order to commemorate the work and its creator, they laid a marble plaque with the following inscription: AD AERIS SALUBRITATEM / ET OPPORTUNITATEM DEFENSAM / ITA PERACTUM / AB ECC.mo D D GEN. C. WALLSEGG / ANNO SAL. MDCCXXXII (Built by his excellency Lord General C. Wallsegg to

keep the air clean and provide more appropriate defence. Year of Salvation 1742) (fig. 17).

The Mantuan community, which wanted to remember the outstanding work of this Austrian officer, named the small valley opposite his works after him, "Italianising" his as Valsecchi.



17 - Tombstone dedicated to General Otto von Wallsegg.

12 TRINCERAMENTO DEL MIGLIARETTO

After the sack of Mantua in 1630, the military organisation and defence of the city were entrusted, by an agreement between France and the Empire, to a military garrison of the Republic of Venice, which remained in place from 1631 to 1663. In view of the need to strengthen the defensive system, the reinforcement work already undertaken by Duke Carlo I Gonzaga Nevers was completed, and new works, such as the structure placed to defend Porta Pradella and the two-pronged Trinceramento del Migliaretto entrenchment, built from the ruins of the convents of San Matteo and Santa Chiara, were planned. Construction work was carried out at the end of the 17th century. Indeed, after removing the Venetian garrison, the French sent some of their engineers to study the defensive system of the city as well as restore and renovate the existing works and build new ones.

In the last decade of the century, engineer Du Plessis oversaw the construction of the Te and Migliaretto entrenchments. The latter, of great strategic importance for the defence of the south-eastern front of the city, was subject to substantial expansion and strengthening between the late 18th and early 19th centuries. Indeed, a covered road with a lunette in front of it was added to the existing track so as to form a sort of crown structure, and new advanced works were subsequently implemented (fig. 16).

During the Napoleonic era, the entrenched camp was set up as part of the general defence plan drawn up to reinforce the fortress by French general François de Chasseloup-Laubat,

who wanted to complement the fortified works of Te and Migliaretto.

For the whole 19th century, the Trinceramento del Migliaretto entrenchment, a bastioned line system with additional external works and lunettes provided with a covered road, remained a fundamental element of the defensive structure of the south-eastern front of the fortress (fig. 18). The defensive plan for the year 1866 envisaged the reinforcement of the embankments with brushwood and vegetal obstacles (fig. 18). Mantua's annexation to the Kingdom of Italy and the gradual loss of its long-recognised strategic military role also led to the destruction of these works, of which only a few traces remain today in the gradients and geometry of the terrain.



18 - Detail of the Migliaretto entrenchments taken from a map of the fortress of Mantua published in Florence in 1844 (ANV, Raccolta Balzanelli, F1 IV, 79).

13 ENTRENCHED FIELD

In Napoleonic times, the general defence plan drawn up by French general François de Chasseloup-Laubat for the reinforcement to reinforce of the Mantua fortress gave the city its definitive fortification structure, which. This was based on a detached fortification scheme, namely structures placed beyond the bastioned city walls serving as a secondary second line of resistance line or even a indeed safety line. In this specific case, these works were the cornerstones of a grandiose hydraulic system that was intended to make the city into an imposing river stronghold (fig. 19).

Once again, water was the essential defence element, and controlling it was, of course, essential. Inevitably, the sluices and dams that constituted the complex hydraulic system that characterised the city became fundamental key points to be defended and strengthened, together with the structures built to defend the main accesses to the city. New works were designed and built and interventions made, such as the Belfiore and San Giorgio lunettes, and the great Paiolo flooding of Lake Paiolo, made possible by the Pradella and Pietole dams. On the southern front, moreover, beyond the Te and Migliaretto entrenchments, Napoleon, when visiting Mantua, had the so-called "entrenched field", a large area enclosed by embankments and three new perimeter ramparts, flattened so that it could be converted into agricultural land could be obtained from it, built on the southern front, beyond the Te and Migliaretto entrenchments, together as well as with a field of Mars intended for military exercises (fig. 19).

In 1812, the three ramparts and the curtain walls were completed built, and the completion of the gorge fronts of the ramparts with towers equipped with a platform was plan-

ned; however, in 1814, when the French were forced to leave the city, said these works had yet be carried out.

The grand scheme to transform Mantua into a large river stronghold was therefore halted, only to be taken up again by the Austrians, who partially modified it and later expanded it. The entrenched field, intended to complement the fortified works of Te and Migliaretto and already defined in its layout, remained for the whole of the 19th century a fundamental element of the defensive structure of the south-eastern front of the fortress of Mantua for the whole of the 19th century, and traces of its embankments and ramparts still exist today.



19 - Detail of the entrenched field taken from the topographic map of the city of Mantua designed by Luigi Marini in 1880 (Biblioteca Comunale Teresiana, roll 25).

14 PAIOLO VALLEY

The waters of the Mincio river, which have been controlled since the end of the 12th century, have always played a unique and significant role in the defence of the city of Mantua. They used to surround the urban centre from north-west to north-east and formed, as they still do today, lakes Superiore, di Mezzo, Inferiore and, on the southern front, Lake Paiolo, which has now disappeared.

Work on reclaiming Lake Paiolo and constructing the Paiolo Basso canal, which still flows from Lake Superiore today, began at the end of the 18th century. It was, indeed, between 1775 and 1780 that the Austrians began the reclamation of the lake but reserved the possibility of flooding the entire area again for defensive needs. At the beginning of the 19th century, when Napoleon ordered the construction of new fortifications around the city, large excavations and earthworks were carried out, which affected the hydraulic and hygienic conditions of the Paiolo Valley. In addition to the repair work on the Te and Migliaretto entrenchments, the system of sluices that regulated and channelled the waters that, if needed, made it possible to flood Lake Paiolo, was perfected, and at the far end, towards Lake Inferiore, a new dam was built, whose defence was entrusted to the Forte di Pietole fort. Military requirements remained a priority until 1866, when the city was annexed to the Kingdom of Italy. In 1872, following the great flood that struck the Mantuan territory, a lively debate began on saving the city from the floods of the Mincio River. In 1901, the Ministry of Public Works arranged for the

mechanical reclamation of the whole Paiolo Valley.

The total surface area envisaged in the project amounted to 2,080.42 hectares, of which 716.17 constituted the lower part of the district, comprising extremely swampy lands. In February 1920, the establishment of the Consorzio Speciale di Bonifica del Territorio Sud di Mantova consortium was sanctioned, and in 1922 it was decided that the Paiolo-Mantova basin, including the Paiolo Alto and Basso canals, should remain hydraulically separated due to substantial differences to the rest of the territory being reclaimed. The construction of the lifting system of the Forte di Pietole fort was also approved.

Today, the Paiolo Valley is a large wetland of particular ecological interest (fig. 20).



20 - View of the Paiolo Valley.

15 MONUMENT TO THE BELFIORE MARTYRS

Mantua dedicated a monument and a memorial stone, made by sculptor Pasquale Miglioretti (Ostiglia, 1822–Milan 1881), to the patriots of the Risorgimento executed between 1851 and 1855 near the Belfiore lunette terraces, on the southern shore of Lake Superiore (which was then part of the municipality of Curtatone). The monument, which is currently found where the martyrs were killed, was initially placed, in a raised position, in the middle of Piazza Sordello and solemnly inaugurated on 7 December 1872. The final location was chosen after difficult negotiations between the Municipality of Mantua, the promoting committee and Miglioretti, following the non-concession of the suburban area originally selected for the monument, namely the Belfiore rampart, which was the execution site, currently known as Valletta di Belfiore.

The work, which contained the remains of the martyrs, was conceived by the artist "in a composite style" and built using various elements: the statue of the Genius of Humanity, a sarcophagus serving as a pedestal connected to the statue by means of a pyramid-shaped element, a lion figure and laurel wreaths, and finally the medallions bearing the martyrs' faces placed on either side of the sarcophagus. However, as soon as the inauguration took place, heavy criticism was levelled at the solution adopted for the base, which prompted a wide-ranging debate and the development of some alternatives.

Some time later, the monument was desecrated by unknown hands, before being reopened on 5 June 1887



21 - Inauguration ceremony of the monument of 5 November 1887, after the medallions were remade and the plaque in memory of Giuseppe Finzi was laid (ASCMn, Photographic collection, folder 15, file 6).

15 MONUMENT TO THE BELFIORE MARTYRS

(fig. 21).

In 1930, it was removed from its original location with the intention of restoring the original state of Piazza Sordello. The martyrs' remains were transferred to the church of San Sebastiano, now the Memorial Chapel of Fallen Mantuans, where the lower part of the monument, the sarcophagus, was rebuilt. The statue depicting the Genius of Humanity was instead placed in the courtyard of the Ducal Palace together with numerous stones already laid to commemorate condemned politicians and participants in the Belfiore conspiracy. Finally, the gallows were transferred to the Risorgimento Museum.

In 2002, on the monument's 150th anniversary, Migliorretti's work was restored and reassembled at the entrance to the gardens of the Belfiore Valley, which was the site of the sacrifice and the location for which the monument was conceived and designed. On 20 November of the same year, the monument was solemnly inaugurated by President of the Italian Republic Carlo Azeglio Ciampi.

Today, the martyrs' remains are not preserved inside it, but remain in the Memorial Chapel of Fallen Mantuans in the former church of San Sebastiano.



22 - *The monument to the Belfiore martyrs.*

16 BELFIORE MARTYRS MEMORIAL STONE

In 1866, when in 1866 master builders Pacifico and Pietro Andreani, who were engaged in some excavation work on the Belfiore lunette, found the remains of the "martyrs" who had been executed and buried there between 1851 and 1855, the erection of a monument that could hand the sacrifice of Italian patriots down to posterity it seemed obvious and necessary to build a monument to the sacrifice of the Italian patriots. However, since that portion of the land was subject allocated to for military servitude use, the project clashed with the opinion of the competent relevant military authorities, which who, unable to guarantee the protection of the monument in the event of warlike events, expressed a negative opinion. Once it was decided to place the monument in Piazza Sordello, to remember mark where the spot where the tragic events had taken took place, a marble mound by sculptor Pasquale Miglioretti was placed on the site where the remains were found (fig. 23). When, on 7 December 1872, a long procession of people and authorities walked from the Cimitero degli Angeli graveyard, where the mortal remains of the patriots had been temporarily housed, towards Piazza Sordello for the inauguration of the monument, wreaths and garlands were placed during a stop in this place.

The mayor of Mantua reproached the mayor of Curtatone as early as 1898 for the state of degradation and abandonment into which in which the site had fallen. the work was in (fig. 24). However, questions atters of competence authority among among the municipalities, however, delayed any intervention until 1908, when heavy complaints signed by the Risorgimento Museum of

Brescia were published in the Provincia di Brescia daily newspaper, which led to the entrusting of an intervention project to the Turin architect Giuseppe Roda. The project was presented in 1909.

Given the limited height of the memorial stone, it was key to the creation create of a setting where such a the small monument could be the main element feature was fundamental. The location was delimited bordered with by trees plantations so as to form the background and limit the view, and the levels of the land were modified and given a layout that, with the help of perspective, could remove distance the monument from within the composition in such a way that "as to make its limited height appears to be due to its distance".

In 1930, with the dismantling of the monument in Piazza Sordello, marble pieces and parts of Miglioretti's work, for which no proper location could be found, were buried in the garden in front of the memorial.

In 1952, on the occasion of the Centenary, with the visit of the President of the Republic Luigi Einaudi, a great youth initiative was held at the memorial stone in the Valletta di Belfiore rampart, to which a A national architecture competition was used to select the gave design for the layout and arrangement that still characterise it today remains to this day (fig. 24).

On 6 December 2011, another President of the Republic, Giorgio Napolitano, paid homage to this place, remembering the sacrifice of those who were martyred for their patriotic ideals.

16 BELFIORE MARTYRS MEMORIALSTONE



23 - Valletta di Belfiore, memorial stone to the of Belfiore martyrs in a photograph by Studio Amilcare Sangalli dating back to the late 19th–early 20th century (ASCMn, Archivio ex Museo del Risorgimento e della Resistenza Renato Giusti, Photographs, no. 74).



24 - Memorial stone to the Belfiore martyrs.

17 PONTE DEI MULINI DAM-BRIDGE

The Ponte dei Mulini dam-bridge, built between 1188 and 1190 as part of the hydrographic system of Mantua by engineer Alberto Pitentino from Bergamo, is still a fundamental element in regulating the waters that have always surrounded the city and ensured its defence, giving it the reputation of an invincible fortress. Gabriele Bertazzolo wrote: "Pitentino (...) imagined making a very strong earthen embankment and a very solid wall which would begin at the door of Cepetto and reach the hamlet of Porto. Then, he built a "sorattore" to enable the waters of the Mincio river to flow, so that the lake would not reach such a height as to exceed this embankment, the height of which he wanted to serve as a falling-off point for the water of twelve mills, and other buildings useful to the city. (...) It was decided that such a structure would be made of stone (...), so Alberto Pitentino built it, covered it, and shaped it in the form of a bridge and a portico. The upper side of this structure, which was later called Ponte delli Molini, was fortified with a massive deposit of earth, forming a huge beach to prevent the water from straining the structure".

Work on the bridge seems to have only been completed in 1230. Then, after less than thirty years, the bridge was restored, only to be seriously damaged at the end of the 14th century during the war between Francesco Gonzaga and Gian Galeazzo Visconti.

The invading army, in an attempt to drain the lakes around the town, built a dam in Valeggio across the Mincio river in order to change its course.

The operation was unsuccessful: the dam collapsed, allowing enough water into the channel to break the



25 - The Ponte dei Mulini bridge in an image dating back to the end of the 19th century (ASCMn, Photographic collection, folder 16, file4/2, photograph 1).

17 PONTE DEI MULINI DAM-BRIDGE

Ponte dei Mulini bridge in the middle. The damage was repaired two years later with the curved embankment, which was still referred to “della rotta” (“of the broken bridge”) in the 20th century. In 1514, under Marquis Francesco Gonzaga, the works required to remedy its structural issues were completed, and in 1544, the aforementioned sorattore, which regulated the run-off of the waters of the Mincio River from Lake Superiore to Lake Mezzo, was fortified with the construction of a keep, rebuilt in 1743 and then demolished in 1854. Restoration works were also documented during the 17th and 18th centuries (fig. 25).

In 1851, the Verona-Mantua railway was completed with the terminal station in Sant'Antonio. This was followed later, between 1871 and 1873, by the Verona-Mantua-Modena railway, which required an opening to be made in the walls of the Cittadella di Porto and the building of two railway bridges over Lake Superiore. The beginning of the new century saw the tackling of the issue of reclaiming the lakes, which were closely linked to the large hydraulic system designed for the Adige, Garda, Mincio, Tartaro and Canal Bianco rivers. The war, however, interrupted all projects. In July 1944, the Ponte dei Mulini dam-bridge was destroyed during the Allied aerial bombardments, only to be rebuilt after the war in the form of a simple embankment (fig. 26).



26 - The Ponte dei Mulini bridge during the July 1944 bombing (ASCMn, Archivio ex Museo del Risorgimento e della Resistenza Renato Giusti, Photographs, no. 113).

SORATTORE: Spillway, hydraulic feature designed to discharge water exceeding a set limit from a reservoir or canal.

18 FORTE DI PIETOLE

The construction of the imposing Forte di Pietole fort, currently surrounded by vegetation on the banks of the Mincio river, was part of the general plan to reinforce the Mantua fortress developed at the beginning of the 19th century by French General François de Chasseloup-Laubat, which made the city a modern fortress with detached forts at the centre of an extensive and complex hydraulic system. In particular, to reinforce the southern front, in addition to the work on the Te and Migliaretto entrenchments, designs to improve the system of locks were made, which would enable the flooding of Lake Paiolo as required. Moreover, at the far end of Lake Paiolo, near Lake Inferiore, the construction of a new dam and sluice was planned, along with the grandiose Forte di Pietole fort to defend it, on the road leading to the village of Pietole.

The Forte di Pietole was built to defend the sluice. This fort was built on an asymmetrically crown-shaped layout, consisting of a central parade ground separated from numerous external structures by a moat. It was used as a bridgehead to defend the new dam, but also as a garrison to defend the southern side of Mantua's stronghold.

The first local technical interventions were entrusted to engineer Pietro Cremonesi, and, despite the immediate start of work and the employment of many workers, in 1813 the fort had not yet been completed.

Work was resumed by the Austrians after the Congress of Vienna: in 1835 in particular, the walled vaults of the underground passages were

completed, and the mighty walls of the ramparts were built; from 1840 to 1845, the casemates were built in the sides of the ramparts, and in 1845 the two sortie doors complete with a drawbridge on the curtain walls were completed.

Finally, between 1862 and 1863, the large gunpowder magazine on the back of the central bastion was strengthened.

After the annexation of Mantua to the Kingdom of Italy and the gradual dismantling of the defensive apparatus, the fort was initially included among the works to be removed from the list of fortifications and subsequently used to store materials and ammunition. In 1917, this decision ended up causing the great fire that developed between 28 April and 1 May and led to the explosion and subsequent destruction of the great Austrian magazine containing 280 quintals of gunpowder. The fire greatly damaged the structure of the fort: ramparts I, II and III suffered serious damage and the vault of the covered road collapsed at several points. However, the construction of new sheds was preferred to restoration work, and the entire structure of the fort was finally decommissioned in 1983 (fig. 27–28).

After a long period of neglect, the structure was ceded to the Municipality of Borgo Virgilia, which then undertook major restoration and enhancement works on it. In April 2024, within the redeveloped Forte di Pietole, the Parco Museo Virgilio, an exhibition space dedicated to the great Latin poet, was opened to the public.

18 FORTE DI PIETOLE



27 - Forte di Pietole fort, external view of Bastion IV.



28 - Forte di Pietole fort, detail of the entrance portal.

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