

Aquileia: first results from the market excavation and the late antiquity town walls (part two)

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The presentation of the research project of the University of Verona's Dipartimento Culture e Civiltà, carried out in the former Pasqualis property in Aquileia, continues with this second paper that aims to discuss the preliminary results of the excavation held in 2018 and 2019. As much as the work is still at the beginning, some important results already came to light. It is about a new market building that was part of the other two already known from previous excavation held in the '50 and a structured floor surface, possibly a ramp connecting the two city walls via a footpath that was probably used to unload goods and foodstuffs from the river to the market buildings. These structures seem to be part of a monumental market building that most probably was used to sell different types of goods. Its strategic position next to the river from one side and close to the basilica from another could be of great importance to better understand the development of Aquileia during Late Antiquity.

Introduction

This paper presents the preliminary results of Verona University's excavation carried out in the former Pasqualis property in Aquileia. Permission for the excavation came from Italy's Ministry of Culture¹ and the research was funded by the *Fondazione Aquileia*. The first part of this paper has been already published in the last issue of this journal²: the previous article covered the archival research and the geophysical survey prior to on site excavation.

The area had already been partially excavated in the 1950s by Giovanni Brusin. Several Late Antique buildings were uncovered. These included three paved areas and two parallel walls running along the north bank of the River Natissa. Working from the preliminary archival research and geophysical surveys, in 2018 and 2019 Verona University opened three trenches and sunk four cores by the southern walls (fig. 1). The site reports are presented below, along with a brief breakdown of the finds record. The project is still in progress. There will be further excavations and the results of various analyses are yet to be seen. However, it is hoped that a preliminary presentation of the data so far available may be useful.

Patrizia Basso

We thank Jim Manning-Press for helping in translation.

¹ Protocol number 0014409 of 28.5.2018 and 0015991 of 10.6.2019.

² BASSO, DOBREVA 2020.

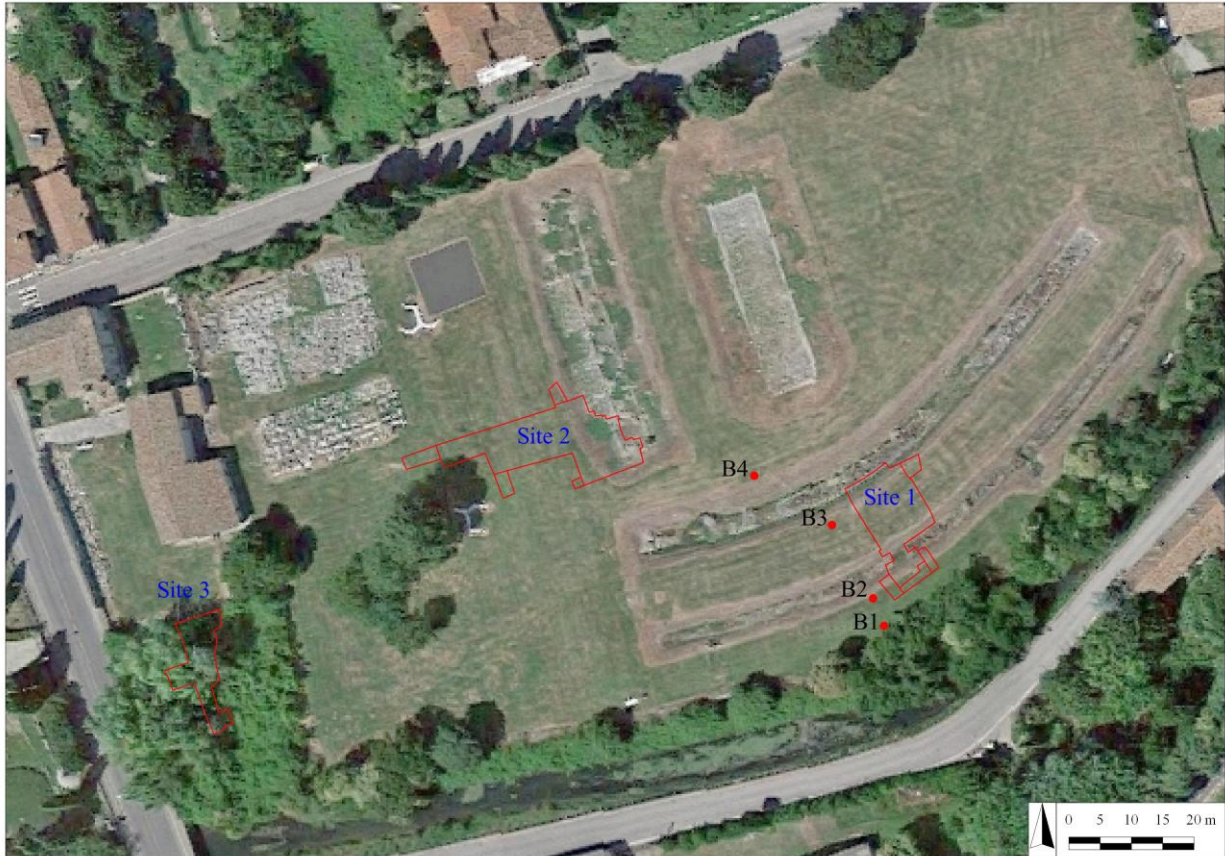


Fig. 1. General view of the site from a drone: the remains brought to light by Brusin in 1953-54 and the three sites and the four cores opened by University of Verona in 2018-2019 (Explora s.r.l. drone survey, reworked by Valeria Grazioli).

1. Site 1

The site covered some two hundred square metres. It lay between the two stretches of wall uncovered by Brusin, encompassing the furthest west of the three openings in the outer wall (figs. 1 and 2).

Various methodologies were used: in part open-area stratigraphic excavation, in part stepped test pits (1, 2 and 3) and trial trenches to the north and south. The aim was to keep the abundance of water, caused by the high water table, under control³.

Maria Bosco

1.1 The inner curtain wall

Brusin excavated over ninety metres of what he considered the third century CE curtain wall of the town⁴ (34). The wall's width oscillates around three metres, curving slightly. Five courses of ashlar blocks have survived. The blocks are uniform in size and shape. A variety of architectural elements were also reused in its construction, along with monumental inscriptions (fig. 3). An abundant amount of resistant mortar was used. Fragmented or whole tiles and bricks were used more rarely and tend to be found in the *caementicium* mix of the wall's core. A narrow, 0.05 metre wide foundation recess sits on an imposing sandy dump layer (28), any-

³ Brusin had encountered the same difficulties: see ms. 2067, date 24.4.1954. At the time a system between the walls to make the water flow off southwards into the River Natissa was put in practice.

⁴ See BASSO, DOBREVA 2020.



Fig. 2. Zenital image of Site 1 (reworked by Valeria Grazioli).



Fig. 3. The inner curtain wall (photograph Patrizia Basso).



Fig. 4. Site 1. The collapsed inner curtain wall (photograph Patrizia Basso).

thing up to 0.65 metres thick. Its make up is fairly chaotic, including lumps of mortar and frequent brick and tile fragments, potsherds (mainly amphora) and animal bone. At this stage the finds appear to date the deposit to the fourth century CE (see § 4.2. 1). Future excavation will shed greater light on the matter.

One element of considerable interest was the discovery of a sizeable chunk of collapsed wall elevation, some 5.5 metres by 5.3. It lay just 0.2 or 0.3 metres below the ground surface in an area untouched by Brusin's excavation⁵ (2). It had been cut by modern intrusions⁶, but nearly thirty courses remain. These included bricks, river cobbles and ashlar blocks (fig. 4). The ashlar blocks had been laid slightly inclined to one side, causing the wall to fall southwards. A silty sandy sediment mixed with frequent grains of mortar was probably all that is left of the mortar used to bond them when the course was laid. At the northern end there is what appears to be a small rectangular window with a semicircular brick ferrule. The stretch of collapsed wall was an absolute novelty in the face of what we knew about Brusin's excavations⁷. The scholar makes no mention of a collapsed wall but had conjectured that there may have been a sentinel walkway along the inner face. He put this at about 5.5 to 6 metres up, a similar height to our stretch of collapsed wall.

What was left of another wall (29) came to light just in front of the outer face of the curtain wall. It was about a metre wide and made from fairly square ashlar blocks. It had been razed and buried during the construction of 34. The two walls are not parallel, the earlier one running more northeast/southwest. The wall (29) had never previously been documented and provides precious evidence of activity on the site prior to the construction of the curtain wall. This was built with a very similar technique to another wall on Site 3 (see § 3). It is thought that it was an embankment wall for the River Natissa which was broader and flowed further to the north than today's course. Here too, future excavation will reveal how deep it lies and the type of foundation, as well as to date it.

⁵ From the photographs it is clear that this area was used as the spoil heap for the earth removed from the two long trenches dug to uncover the walls.

⁶ Presumably the cut and its two fills are modern, possibly agricultural.

⁷ During the excavation of the rubble it was decided to number the blocks in the hope of being able to reconstruct the wall at a future date.



Fig. 5. The outer curtain wall (photograph Patrizia Basso).



Fig. 6. Site 1. The timber piling and land consolidation amphorae put in place prior to the construction of the outer curtain wall (photograph Patrizia Basso).

1.2 The outer curtain wall

In the 1950s Brusin uncovered over 110 metres of the outer curtain wall (**31/33**). He believed it was built to reinforce the already existing curtain wall, dating it to the fifth century CE⁸. It differs considerably from the inner one in both its width and structure. It is half as wide, just one metre fifty, but the courses of ashlar stone blocks are very orderly with virtually no other reused building material (fig. 5).

Brusin had described the technique used to build the wall's foundation. To verify this a square test pit was sunk next to the westernmost of the three wall openings. A series of vertical wooden piles were exposed. There was also a row of *amphorae*, positioned vertically in the soil, both beneath the wall (**1006** about - 0.74m asl), and alongside its inner face (**57/53-56**: fig. 6). A row of wooden piles (**59**) had also been driven along the outer face of the wall. The idea would have been to underpin the wall in a very marshy terrain. Timber samples were taken from the piles for dendrochronological analysis and radiocarbon dating. In this way it will be possible to date the wall more precisely than simply "fifth century CE", a date arrived at thanks to the type of amphora used (see details in § 4.2.1). Our results confirm those of Brusin, adding that the wall was also underpinned with vertical timber piles and *amphorae*, as opposed to just the horizontal alder beams mentioned in his site documentation⁹.

Another discovery during our excavation was the existence of two irregular cavities on either side of the wall opening. Though different in size, 0.23 by 0.1 metres to the west and 0.26 by 0.08 to the east, they were at the same height. They may have housed the under beams of a movable gate that closed the opening when required.

⁸ See BASSO, DOBREVA 2020.

⁹ *Ibidem*.

This gate may even be the timber structure (78) uncovered *in situ* just outside the curtain wall (fig. 7). It lay at 0.35m asl. Its three parallel beams, at least 1.5 metres long and 0.18 metres thick, have not yet been fully excavated. The beams lie north/south, sloping gently to the south. The two outer ones are slightly thinner. The three would have been joined to at least six planks that were found running east/west, at most 1.7 metres long. They are not particularly thick and had been badly carpentered; one even has the pointed end of a branch still sticking out of it. Given the logistical difficulties of digging with so much rising water, any interpretation must be taken with a pinch of salt. Future excavation will hopefully provide the answers. It may be that the wooden structure was a riverside



Fig. 7. Site 1. The timber structure uncovered just outside the wall, in front of the wall opening (photograph Patrizia Basso).

quay, resting on the wooden piles (59) uncovered just outside the wall (see above). The piles cut a thick sandy dump layer with frequent building debris, potsherds and animal bone. The layer did not cover the timber structure but lay to its east and west. This might suggest the existence of some sort of waterway cutting north/south across the dump layer. In those days the waterway would have connected the opening in the wall with what was the course of the River Natissa at that time. The timber structure lay in this hypothetical canal. Fore core samples taken during the 2019 excavation revealed that the north bank of the river originally stretched as far as the inner curtain wall 29, which was probably an embankment. However, the north bank of the river was later shifted south thanks to a massive amount of dump layers rich in finds.

At a certain point the waterway fell into disuse and a grey silty layer was deposited at the bottom of the stagnant pool. However, at a later date, still to be defined, the area underwent a phase of renovation. A system of land reclamation was put in place using wattle crates made from timber and branches woven together, then filled with plentiful amounts of rubble. These are similar to the “volparoni” used for land reclamation in Venice. So far these remain only partially excavated given the highly complex excavation conditions.

Andrea Zemignani

1.3 The gap between the curtain walls

Brusin originally interpreted the outer wall as an embankment for the River Natissa¹⁰. He came to this conclusion thanks to the three aforementioned openings, lying at equal distances, 25 metres, one from the other. He saw these as a means of connecting the market buildings with the river to be able to offload merchandise. Even though the scholar hinted at the existence of a ramp corresponding with one of the openings, along with a kind of pier or hitching post¹¹, he went on to abandon his original theory and preferred to see the outer wall as a secondary reinforcement for the first curtain wall.

The recent excavations suggest a new and alternative interpretation of the area in question, reverting to Brusin’s original idea, the hypothetical existence of a waterway between the River Natissa and the market buildings.

The 2018 excavation between the two walls brought to light a compact layer of yellow silt mixed with frequent mortar (24). It slopes down southwards. The layer could be all that is left of the foundations of a ramp or stairway, leading down to the opening in the wall on the outer face. It was probably intended for offloading or loading merchandise. Only a part of the parapets (25 e 86) remain, made of a line of some very large stone blocks, 0.45 by 0.3 and 0.4 by 0.4 metres, along with other smaller blocks. The floor surface is missing. This probably consisted of wooden planks, given that at least two lines of long iron nails running parallel to the wall were found in 24.

¹⁰ See details in BASSO, DOBREVA 2020.

¹¹ *Ibidem*.

The same planking seems to have been used for the flooring to the east. During the 2019 excavation a structure was uncovered, with six or seven steps sloping southwards towards the external wall. It may have been a foot path. Near the inner wall it flattens out. Three different earthen floor surfaces were recorded, each with their own layer of accumulated sandy silt debris. The last floor level (**1019**) was poorly preserved. It consisted of a layer of compacted amphora, brick and stone fragments. A better-preserved floor surface (**1026**) came to light between 0.211 and 0.849 metres asl. This was a thick layer, between 0.05 and 0.4 metres, of *cocciopesto* (hydraulic mortar) with a mortar foundation. The originally flat surface also slopes off towards the outer wall. It is interesting to note that the level of the flat part of the floor surface corresponds with that of one of the parapets of the ramp to the west (**25**). The compacted floor surface covered a variety of sandy silt dump layers with frequent finds. These had been deposited on a third *cocciopesto* floor surface (**1035**). This emerged between 0.53 and 0.44 metres asl and is yet to be excavated. All that has been documented so far is that it too slopes south, though to a lesser degree. Its thickness is unknown.

A series of layers are present all over the site (**16**, **19** and **20** in 2018; **1005** in 2019). They are a slightly silty sand with rare finds. They have been interpreted as the result of the waterway falling into disuse, and the ground surface being levelled following the demolition of the outer wall.

A precise date for these overlying layers is still to be established. The coins and other finds can be placed in the fifth century CE (see §4.2.1). The constant build up and subsequent systemisation of the area opens new debate over what caused the deterioration of the space between the walls and what it came to be used for. Had there been some traumatic event or events? Perhaps the natural environment or climate had changed? Future research may hold the answers.

Maria Bosco

2. Site 2

Site 2 was excavated between 2018 and 2019 and covers some 250 square metres (figs. 1 and 8). The original site lay in the southwest corner of the western market building. It was later extended to the west to include the geophysical anomalies that had been interpreted as another possible market place¹².

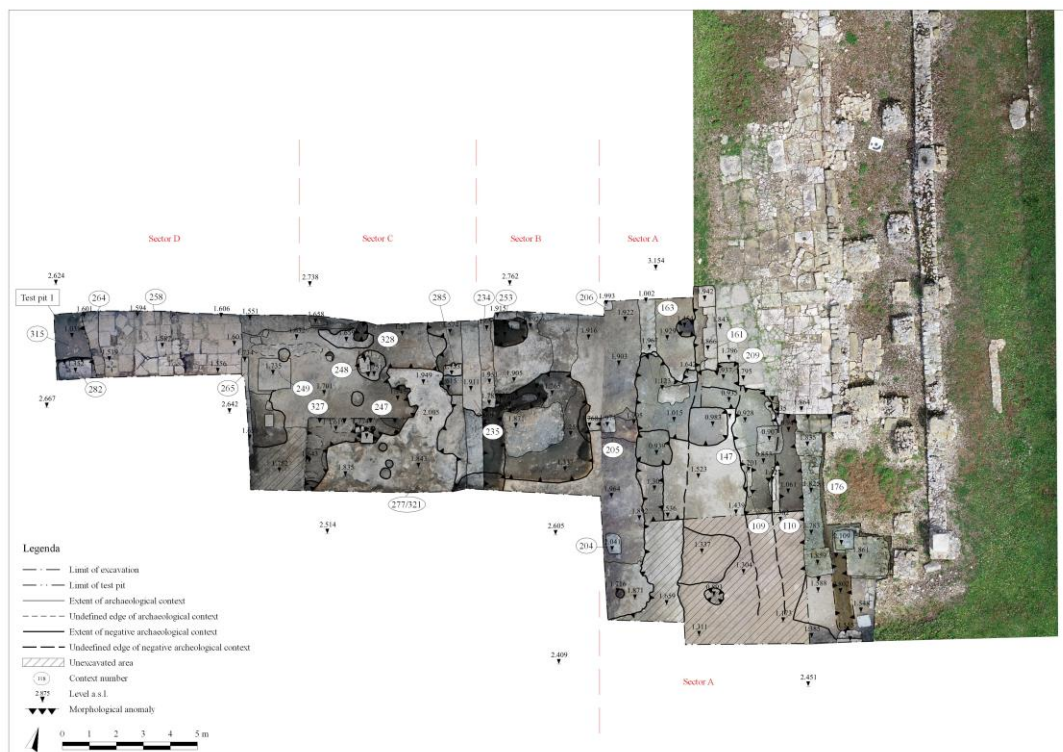


Fig. 8. Site 2. Zenital photograph by Valeria Grazioli.

¹² See BASSO, DOBREVA 2020.

2.1 The earliest phases

The earliest structures on site came to light in 2018 in the test pits opened in the north and northeast end of the site, known as Sector A: 1. an east/west running *opus caementicium* wall (149), found at the bottom of a robber trench; 2. a square column base in *opus caementicium* (147), covered by a dump layer intended to raise the ground level. Contexts from the same phase as the wall and base also include a layer of crushed mortar (209). This may have been a floor level, but it is still too early to say. Even if the evidence is only flimsy, at the moment it shines important new light on an earlier occupation of the area, something Brusin's excavations had failed to do. This phase dates to the first century CE (§ 4.2.2).

2.2 The market buildings

The earliest signs of activity prior to the construction of the first marketplace were the layers (139, 170 and 164) uncovered in the 2018 test pits in Sector A, a greyish clayey silt with frequent potsherds and brick fragments¹³. These were probably part of a single building site, with dump layers intended to raise the ground level. Further excavation may establish if the elements in *opus caementicium* (109 e 110) are also a part of this phase. They line the sides of a northwest/southeast water channel, 0.6 metres wide, severely truncated by later robber trenches (-129). Some sandy silt dump layers (as 120) appear to be related to the construction of other structures. One of these is a northwest/southeast wall (163), its robber trench continued to the south. It was probably associated with a column base, of which only a square robber pit remains. The dimensions and alignment of the two structures are the same as the structures Brusin brought to light in the eastern part of the market building. This is particularly true of a string of piers cluding the remains of a wall (176) with two pier bases in *opus caementicium* at its end.

The evidence points to the existence of a first market building, about 5.4 metres wide, with a portico along each side. The first and fourth row of bases of the portico that Brusin excavated to the east remain, along with the symmetrical structures that we brought to light to the west (fig. 9).



Fig. 9. Site 2. Reconstruction of the ground plan of the first layout of the market building (illustration Fiammetta Soriano).

¹³ These layers seal the razed pier (147) and the earlier layer of mortar (209).

At a later point the western market building was reorganised, taking on the monumental form visible to this day (twenty-five metres long and 4.4 metres wide). It was repaved with stone slabs of various dimensions, for the most part rectangular, and surrounded by a kerb (161). Some of the slabs were reused architectural elements, visible on site to this day. The open space was surrounded with new buildings replacing the earlier structures. In the east these included the second, fourth and fifth row of walls or piers that Brusin had brought to light. These are accompanied by the two matching piers on Site 2, of which only the robber pits remain along with a row of stone built piers (204, 205, 206) found in Sector A. The same structure also includes a square brick-built pier, 0.87 metres wide, and a 0.6 metre wide north/south wall in *opus caementicium* found in Sector B. The above evidence suggests that during this phase the square was surrounded by a double portico some 8.1 metres wide. Another possibility, though less likely, is that there was a single arcade, 2.8 metres wide, in front of a string of *tabernae*, though no walls to separate them have yet been uncovered (fig. 10).

The 2019 excavation uncovered a previously undocumented open market building, 5.6 metres wide (fig. 11). It lies 17.6 metres further to the west than the previous one. Its position corresponds with the geophysical anomalies. The stone slabs (258, 1.6m asl) are for the most part limestone of various sizes. There are also some slabs reworked from earlier stone architectural elements. One of these was originally a drain cover. A kerb (265) runs along the eastern limit of the market building, made from rectangular blocks, positioned slightly higher than the paving slabs (1.73m asl). Along its western limit the kerb is missing. Instead there is a row of trachyte stone slabs (264) which are not aligned with the paving stones and have probably been robbed further to the west. It is unclear whether they had been used to patch up the paving of the market building or were part of a road that ran along the edge of the market. If the latter were true the road would have run over an apparently square pier that came to light in the southern corner of Sector D. All that remained was the cut for its

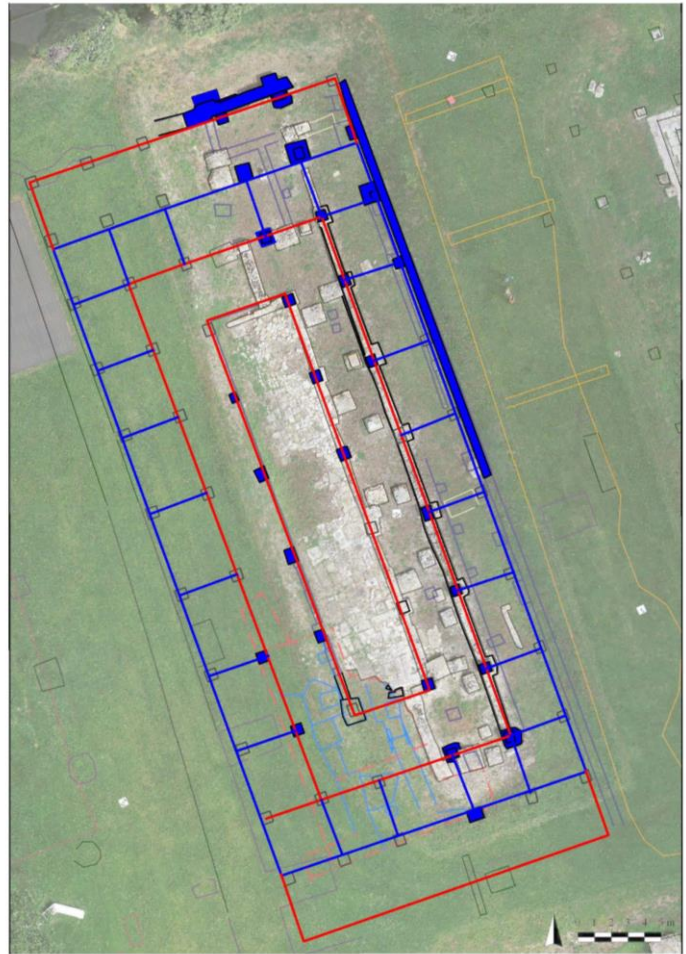


Fig. 10. Site 2. Reconstruction of the final phase of the western market building (illustration Fiammetta Soriano).



Fig. 11. Site 2. Stretch of paving of the new market building brought to light during the 2019 excavation (photograph Fiammetta Soriano).



Fig. 12. Site 2. The probable portico at the eastern end of the market building discovered in 2019 (photograph Fiammetta Soriano).

foundations in *opus caementicium* (282). Another square pier (249), 1.25 metres across, was part of the same system. It was built with sesquipedale bricks (0.3x0.4x0.8m) and mortar. So far only the uppermost part has been documented, what was left after the area to the east of the market building was razed. Both piers showed up as anomalies on the geophysical survey. The presence of these two piers suggests that the market building stretched some twenty-six metres north/south. There would have been seven piers down the north and south sides, with about thirty-six metres between the first and last. Their excessive dimensions suggest that they may have supported a trussed roof over the centre of the space. It seems more likely that they are part of an earlier structure, given how similar they are to the third row of piers found by Brusin east of his western market building. Adjacent to the eastern end of the market building, in Sector C, what was probably a *porticus duplex* was uncovered. This stood on a row of piers, two stone built ones remain (247 and 248: 0.48 x 0.49 x 0.20m and 0.42 x 0.55 x 0.20m)¹⁴ (fig. 12). The piers sat on a silty clay layer that had been spread over the whole site. This was a very compact levelling layer prior to laying the paving stones. All that is left of the paving is the odd trace of a layer of mortar and bits of brick. These were found at the extreme northwest limit of the portico around one of the piers (248).

To the east of Sector C the foundations of a wall came to light (235), 0.73 metres wide. It runs north south across the site, heavily truncated by later activity. The foundations are in roughly hewn stones and mortar. The elevation was probably in bricks. All that remains of this is their shape impressed in the layer of mortar sealing the foundations. To the west a pier abuts the wall, only a trace of mortar remains (285). The wall would have closed off the eastern end of the arcade. The fact that it backs on to the wall (234) that shuts off the western end of the western market building shows that the two buildings sat side by side.

Probably at some point around about the middle of the fifth century CE the floor of the portico was renovated (§ 4.2.2). A dump layer was spread over the previous floor (332 and 327). This new ground surface was sealed with a layer of very crumbly mortar. Only a few traces of this remain, at 1.77m asl. In the second half of the fifth century the portico roof caved in, leaving a layer of charred beams (280/287) (see § 4.2.2). These had been in part truncated by later ditch cuts, described below.

The collapse of the roof meant that the building underwent some renovations. These included raising the floor surface again with a dump layer (some 0.2 metres) of brick rubble (277/321) and it being re-laid with a

¹⁴ Hypothetically the piers were made of wood, seeing as there is no trace on their upper surface of a stone column or mortar of a brick elevation.

layer of mortar¹⁵. The paving of the marketplace, on the other hand, was not raised. There is the possibility that the kerb (**265**) uncovered along the eastern border was added during the portico renovations as a kind of step to frame the market building. Probably in the same period the ground level of the western market building's portico was also raised and re-laid with a layer of mortar (1.87m asl) and *cocciopesto* uncovered in the southwest of Sector A.

2.3. The market falls into disuse and later phases

Following a second fire either at the end of the fifth or in the first decades of the sixth century (§ 4.2.2) both of the market buildings fell into disrepair. The residue from the fire is a layer with frequent traces of burnt timber beams. These would have been the roof frames of the porticos of the western and new market buildings (Sector B: **118**; Sector C: **246, 309**). Sealed beneath the collapsed timber beams in Sector C at least three or four *amphorae* came to light, still lying where they had been broken. In Sector B piles of carbonised grain were found beneath another layer of collapsed debris. They had probably originally been contained in sacks, ready to be sold¹⁶.

Not long after the walls of the by now derelict buildings began to fall in. Some postholes point to the fact that there was still some activity in the area, along with the structures and graves that Brusin¹⁷ had documented.

A large structure just to the west of Sector B may also be a part of this phase¹⁸. The structure was rectangular, 4.3 by 3.5 metres, sunk about 0.6 metres into the ground, cutting the floor levels of the portico along the western market building. It may have been a cistern though any definitive interpretation will have to await its full excavation. One of the fills (**228**) of its robber pit included frequent shellfish, with at least three hundred and fifty flat oysters.

The derelict buildings were then heavily robbed of any possible reusable building material. The robber trenches clearly mark out the ground plan of the structures of the various previous phases. The by now abandoned area went on to be used as farmland. By the twentieth century, in Brusin's time, the western part of the site, had become a vineyard. Traces of this were found just below the topsoil in the shape of a few pits.

Fiammetta Soriano

3. Site 3

Site 3, 19.5 metres by about 10.8 metres, was opened in 2019. The aim was to take a second look at the stratigraphy brought to light on numerous occasions between 1993 and 1996 in the fields known as Braida Pasqualis¹⁹. The main desire was to clarify the interpretation of the various stretches of wall that had been uncovered (fig. 13). First of all, it should be pointed out that on site logistics were severely hampered by the high water table²⁰ along with the roots of the large plants that had grown up in the backfilled soil left by the 1990s excavations.

The two most imposing walls are one running east/west (**2008/S1**)²¹ and a second L-shaped one further to the south. They have been interpreted as a system of river control between the first and early second century CE (**2009-2010/S17-3**). The northern one was one metre wide and made from blocks of sandstone and mortar alternating with courses of brick. The crest was sealed with a course of thick sandstone slabs, some 0.3 by 0.4 metres²². At least 1.2 metres of the elevation of the other wall were brought to light, it is 1.5 metres wide, built with courses of sandstone blocks, *sesquipedale* bricks and a very resistant mortar (fig. 14). At its western end it turns north for about one metre. At its end four steps led down to what probably used to be the ancient river

¹⁵ Little of the latter remained, at 1.84m asl.

¹⁶ For similar situations, also those excavated by Brusin, see BASSO, DOBREVA 2020. The grain appears to be wheat and barley, archaeobotanical analysis is ongoing.

¹⁷ See BASSO, DOBREVA 2020.

¹⁸ Only its robber trench remains (**-237**), but the pit also appears to have shown up on the geophysical survey.

¹⁹ BASSO, DOBREVA 2020.

²⁰ A problem that had plagued previous excavations and partially resolved thanks to a sump (at the centre of the site) with a pump specifically able to evacuate a large volume of water.

²¹ To clarify, the first number is our documentation, the second is the documentation of the previous excavations (summary of the previous excavation's results in BASSO, DOBREVA 2020).

²² Only a part of this remains. Our reopening uncovered only one, but others were recorded in the previous excavation.

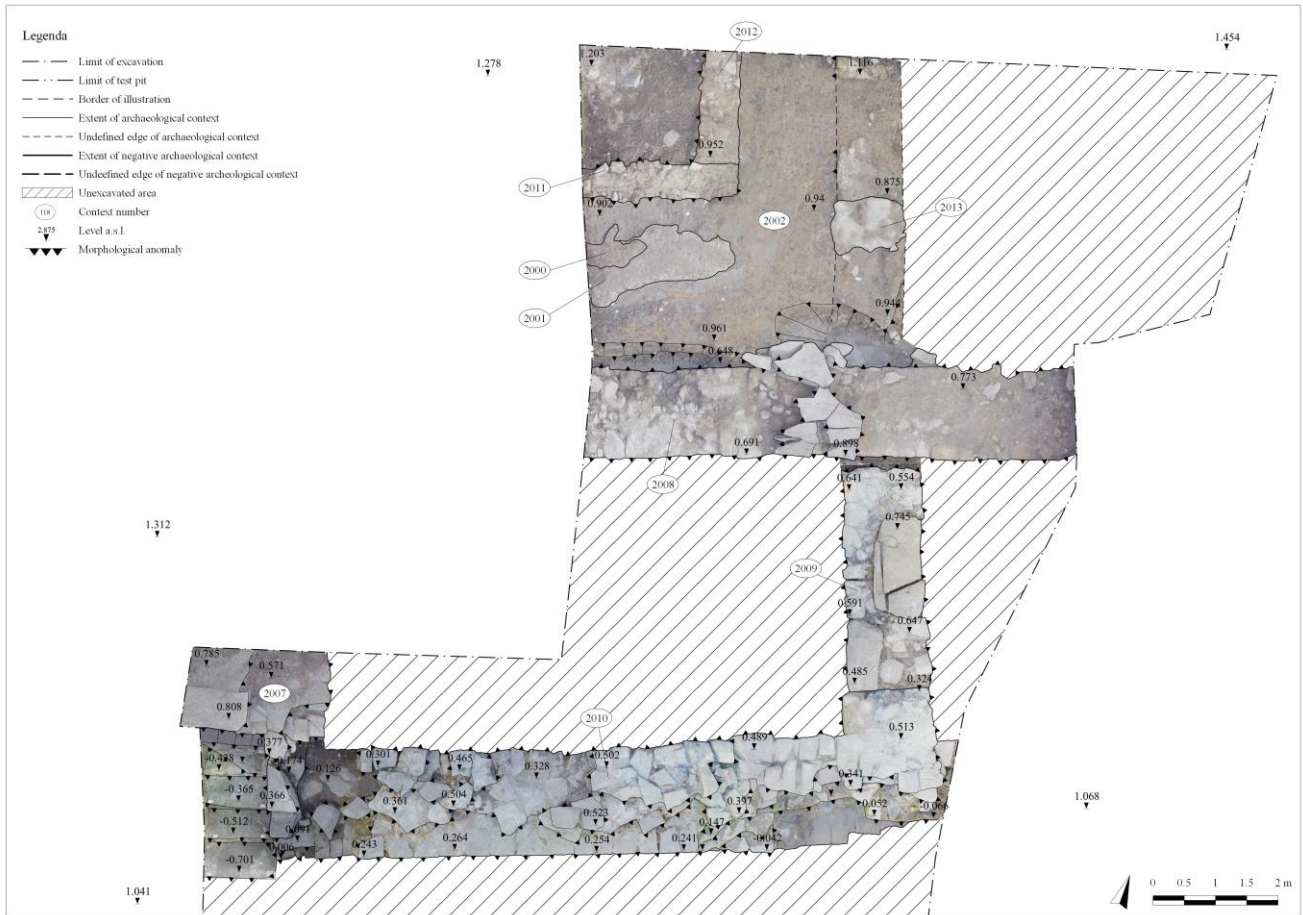


Fig. 13. Site 3. Zenital photograph (graphics Valeria Grazioli).



Fig. 14. Site 3. The wall's East/West facade (photograph Marina Scalzeri).

course. It is unclear how many steps there are in all as they continue on under the western site section. Each step had a sandstone slab resting on a course of *sesquipedale* bricks lain as headers (fig. 15). At a later moment a dry stone wall (2007) was built over the steps with sandstone blocks and other architectural elements, forming an L-shape. Some 1.16 metres of the elevation has survived, continuing under the western section. Though with some uncertainties given the site logistics, the technique used in the construction of wall 2010/S3 appears to be very similar to that of the wall that came to light under the inner curtain wall during the Site 1 2018 excavation (29: see § 1).

We were not able to uncover wall S2 mentioned in the 1990s site report. It had been interpreted as the continuation to the west of Brusin's outer curtain wall.

To the north of 2008/S1, detached from the above-mentioned structures, traces of beaten earth floors or preparations for floor surfaces came to light. These may well have been for later buildings, more recent than the riverside structures. They continued under the section to the north.

Summing up, Site 3 managed to precisely position the structures originally uncovered in the 1990s. The walls don't follow the same alignment as those on Site 1, suggesting they may be part of a separate complex from the one Brusin brought to light further east. The date put forward for the Site 3 walls would place them in the first phase of activity on the site, seen on Site 2 (§ 2.1). There may also be a connection between wall 2010/S3 with Site 1 wall 29 mentioned earlier. (§ 1.1). If this were true both stretches of wall could be part of the same embankment/jetty on the banks of a River Natissa that flowed further to the north than it does now.



Fig. 15. Site 3. Flight of steps leading down to the river (photograph Marina Scalzeri).

Marina Scalzeri

4. Archaeological finds

During the fieldwork the finds were processed. The starting point was the belief that these are valuable markers for two main goals: the first, to use finds to better define different phases chronologically and the second to offer hypotheses on nature, origin and composition of the deposits that came to light. At the same time another aim was to piece together the various activities that had taken place on site by analysing the chronology and typology of the finds, as well as their functional groups.

We should note that any chronology given will not be definitive without further evidence from future excavation of both the market buildings and the walls.

4.1 Method

During the 2018 and 2019 excavations 13.962 finds were recuperated, for the most part potsherds. There are also glass, metal and worked bone finds, along with fragments of decorated plaster, animal bone and worked stone. The 189 coins found reiterate the commercial importance of the complex. The finds were cleaned during excavation and then quantified and catalogued by using both traditional methods and digital

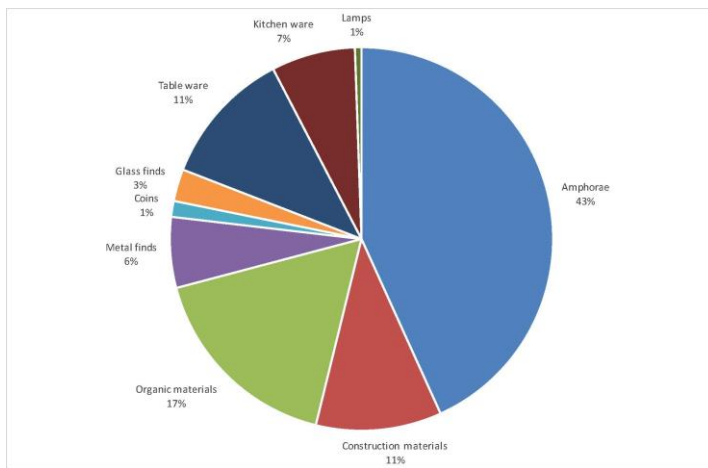


Fig. 16. Graph showing the quantity relationships between different functional finds groups attested on site. The percentage is calculated on 13.962 of total amount of fragments (graphics Diana Dobreva).

recording based on simple excel files. All pottery sherds were taken into consideration by analysing their category and by recording, as far as possible, origin, production area and general chronology, selected among Roman, Late Antique, Medieval, Renaissance and modern period. These data were useful to draw some early conclusions on the pottery assemblages. In fact, most of the finds date to Late Antiquity, followed by those from the Roman, Mediaeval and Renaissance Periods respectively. Less than 1% are modern, showing the complexity of the formative processes of the site. No chronological data was possible for a part of the finds. These are mostly those that date a long period of time, covering two and more periods or which chronology cannot be better-defined, mostly because of their poor

state of conservation. As an example we can bring here some common ware that cannot fully be dated or even some materials that is still difficult to date such as bricks, bone finds, fragments of decorated plaster, *tesserae* for mosaics etc. All these finds were considered of undetermined chronology.

Production area	n. fragments	%	MNI	%
Local/regional	2021	29,77	982	51,07
Thyrranian	264	3,89	152	7,9
Eastern	1312	19,32	242	12,58
North African	3173	46,74	538	27,98
Iberian	10	0,15	4	0,21
Gaulish	9	0,13	5	0,26
Total	6789	100	1923	100

Table 1. The origin of the pottery sherds recovered on site (data processing Diana Dobreva).

As can be seen on the graph (see fig. 16) almost half (43%) of the finds belong to transport containers. This, along with the above-mentioned numerous coins, reiterates the fundamentally commercial nature of the complex. In second place, with 17%, are the organic finds. Their high percentage is distorted by the remains of almost 700 oysters and other shellfish, a conspicuous number, in the backfill of a rectangular structure on Site 2 (§ 2.3). The percentage presence of building material and tableware are 11% each, followed by kitchenware at 7%. Metal finds follow close behind on 6%. Many of these are the iron nails found in the two collapsed layers excavated on Site 2 (§ 2.2 and § 2.3). Glass finds make up 3% and objects used for illumination just 1%.

Of all the finds, 2.721, nineteen per cent, can be identified. This is because they are rims, bases or handles, or are decorated, all elements useful for a typological analysis of the finds. This means that the contexts in which they were found can be dated. As part of the post-excavation process all the so called “diagnostic” finds were catalogued and documented. To establish how many different single types of vessel were present the MNI method was used, counting the Minimum Number of Individuals. An estimate of the total number of actual vessels was reached using the EVE criterion, Evaluated Vessel Equivalent²³. Different fabrics have been studied macroscopically with a 20x magnifying glass. This was to distinguish the main types of clay used, separating the locally, or at least regionally produced pottery from that brought in from outside. The hope is that in the future the pottery will be subject to archaeometric analysis and any preliminary conclusions will be confirmed or invalidated. Table 1 summarises the data concerning the place of manufacture of the pottery found on site. The

²³ ORTON, TYERS 1992; ORTON *et al.* 1993: 166-181.

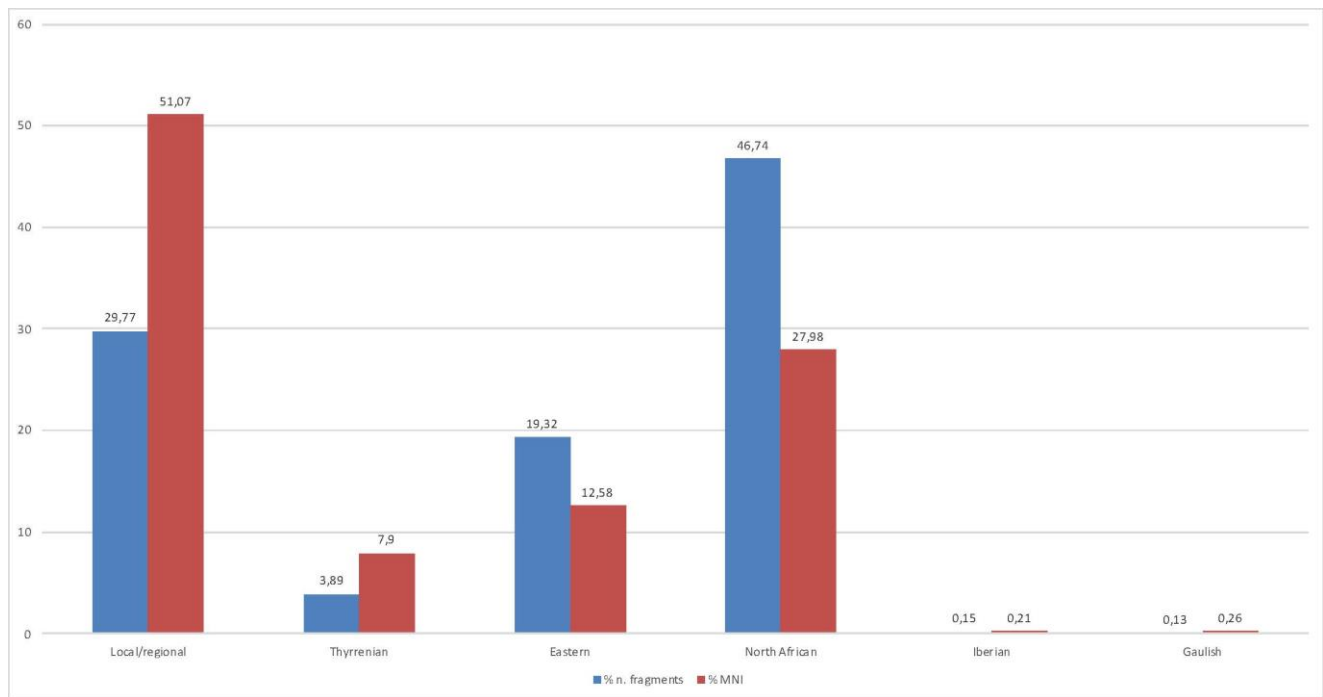


Fig. 17. Quantitative comparison of the pottery productions estimated in percentage value of the number of fragments (6.786) and of minimum number of individuals (1.923 MNI) (graphics Diana Dobrevá).

quantities expressed illustrate both methods used, MNI and EVE, counting both the total number of fragments as well as the number of possible vessels once they had been pieced together. The table sums up the evidence, illustrating how the locally, or at least regionally produced pottery is on almost the same level as that brought in from outside. This may be due to the commercial nature of the site, and Aquileia's role in general as a commercial hub for the Northern Adriatic and the town's links across the Alps. The pottery analysis has revealed stronger ties with certain regions as opposed to others. There is a significant amount of pottery from North Africa, for the most part made up of *amphorae*, kitchenware, *terra sigillata* and lamps. Among the imported items, several come from the East. Most seem to originate from the Aegean and micro-Asiatic region. They include *amphorae* and coarse ware produced in the East, as well as a fair number of examples of *terra sigillata* and other fine ware. These are followed by *amphorae*, fine and coarse ware from the Tyrrhenian as well as Sicily. Last but not least there are a very few items manufactured in the Iberian peninsular and Gaul.

In an effort to piece together a general trend from the data the percentage presence of the number of fragments was placed against the estimated minimum number of individuals (fig. 17). The data reveals a different trend for locally or regionally produced pottery. This stands at 30% when every single fragment is counted but increases to 51% when using the MNI method. This apparent overestimate of individual examples is easily explained when we take into account the characteristics of the types that go to make up the locally produced pottery. The locally produced pottery includes fineware storage jars and tableware, kitchenware and, though rare, some Adriatic transport containers. To date the excavation has for the most part concentrated on contexts from Late Antiquity. As a result contexts from this period are the most represented, with mass produced examples mainly from the fourth to sixth centuries. An example of these are the items from the North African coast. The overall trend within the group of North African pottery confirms the estimated percentage values of both the overall amount of fragments and the number of individual vessels. A closer look, however, shows a major incidence when taking into account the fragments, compared to the MNI. This difference needs to be correlated with the North African group's selection of pottery, which for the most part tends to be large transport containers. Just how fragmented the pottery is and the sort of context it was found in also influences the result. Very often the pottery has been found in secondary deposits (backfills, dumps etc). The other percentage indexes seem to follow along the same lines.

4.2 A chronological analysis of some key contexts

A systematic chronological analysis came next. This was based on all of the finds from what were considered particularly significant contexts. There were two aims; not just to date the deposit but to try and understand how it had been formed.

4.2.1 The contexts associated with the walls

The Site 1 finds taken into account were found in the thick sandy layer (28) covering the foundation recess of the inner curtain wall. In the summarised data presented in Table 2 a predominance of transport containers can be seen. This is no doubt due to the nature of the spot where they were found. The layer appears to be associated with the construction of a wall on a particularly marshy terrain. The *amphorae* may have been included in an attempt to drain the land. Taken as a whole the finds appear to date context 28. Finds believed to be residual have been excluded. The African Red Slip D Hayes 58 plate is worth noting. It dates to the fourth

US	Class	Form	MNI
5	African Red slip ware	undetermined	1
	Local/regional corase ware	cooking pot	1
	Local/regional common ware	jug	3
	Transport containers	African amphora	5
		Eastern amphora	6
	Glass finds	undetermined	1
	Decorated plaster		1
	Metal finds	coin	1
16	African Red slip ware	plate	1
		undetermined	2
	African cooking ware	pan	1
	Tyrrhenian cooking ware	lid	1
	Local/regional corase ware	pan	1
		cooking pot	1
	Transport containers	African amphora	1
		Eastern amphora	5
	amphora undet.	1	
28	Bricks	roof tile	1
	African Red slip ware	plate	1
	Eastern terra sigillata B	bowl	1
	Local/regional common ware	<i>olpe</i>	1
	Local/regional corase ware	cooking pot	2
	Aegean cooking ware	undetermined	1
	African cooking ware	jug/kettle	1
	Transport containers	African amphora	19
		Eastern amphora	2
		Adriatic amphora	1
		amphora undet.	1
Metal finds	<i>fibula</i>	1	

	Worked bone finds	hair niddle	1
53	Transport containers	African amphora	5
54	Transport containers	African amphora	3
55	Transport containers	African amphora	1
56	Transport containers	African amphora	1
1006	Transport containers	African amphora	1
	Black gloss pottery	plate	1
	Grey pootery	bowl	1
	Local/regional common ware	undetermined	1
		cooking pot	1
	Local/regional corase ware	undetermined	1
	African cooking ware	lid	1
	Aegean cooking ware	casserole	1
	African Red slip ware	plate	2
		lid	1
		undetermined	6
	Transport containers	African amphora	6
		Eastern amphora	5
		Adriatic amphora	2
		amphora undet.	2
	Glass paste	mosaics tessera	1
	Glass fids	jug	2
		cup	3
		bowl	1
		provino	1
		bottle	1
undetermined		2	
Metal finds	coin	16	
1019	Worked bone finds	spindle	1
	Local/regional common ware	bottle	1
	Local/regional corase ware	bowl	1
	Transport containers	African amphora	3
		Eastern amphora	2
1026	Metal finds	coin	4

Table 2. Summarised data of the “diagnostic” finds recovered in some key contexts associated with the walls, site 1 (data processing Diana Dobrevá).

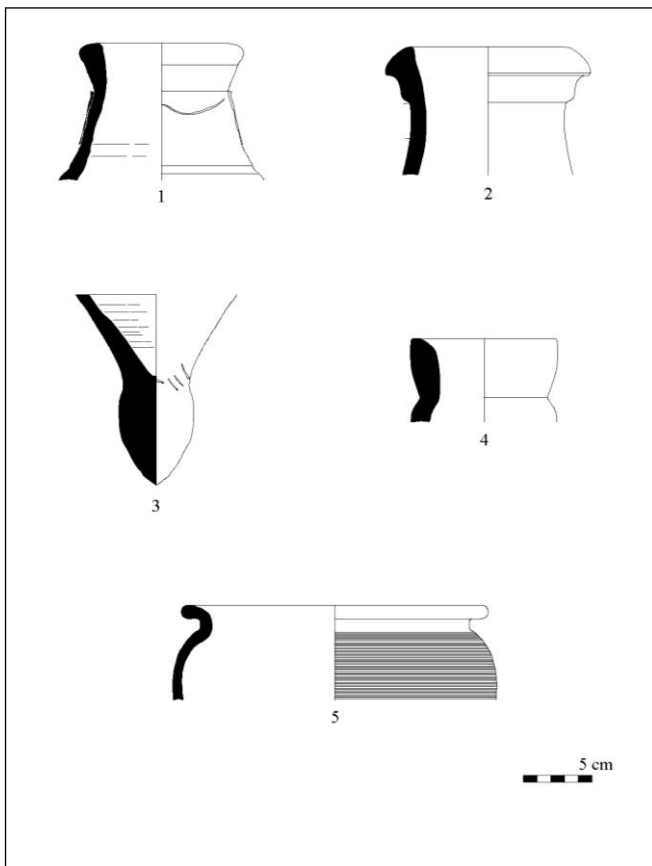


Fig. 18. Site 1. Selected pottery from the inner wall, context 28: 1-4. African amphorae; 5. Cooking pot of local/regional coarse ware (drawings Vittoria Canciani).

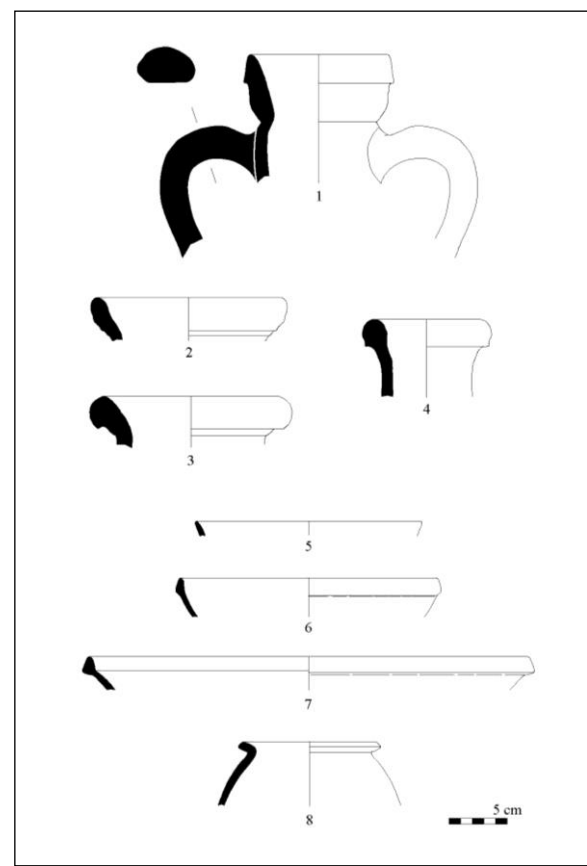


Fig. 19. Site 1. Potsherds from contexts 5, 16 and 1005: 1-4. African amphorae; 5-7. African Red slip ware; 8. Cooking pot of local/regional coarse ware (drawings Vittoria Canciani).

century. The *amphorae* date to the same period. For the most part they come from Africa. They include Tripolitana II and Keay 25.1 types (fig. 18, 1-2), alongside earlier examples such as the African IID (fig. 18, 4) and the early version of a Keay 25.1 type. These date to between the third and early fourth century. There are also locally produced coarse ware cooking pots, very similar to examples from Invillino (fig. 18, 5). The latter date to between the fourth and seventh century CE²⁴. There are also a few fragments of a jug made of African common ware, usually dated to the fourth century CE²⁵. All of these go towards affirming a fourth century date for the context. However, only a careful and complete excavation of the sector will provide correct data to precisely date the construction of the inner curtain wall.

As mentioned above, one of the most interesting discoveries on the site between the two curtain walls was the large piece of collapsed elevation of the inner wall (§ 1.1). The collapsed wall and the robber trenches that followed probably date to the last decades of the fifth century CE. The closest match for the timescale of context 28 is a dump layer of clean yellowish sand (5). The dump may have been an attempt to drain the area after the phase of spoliation. Table 2 sums up the results. Once again there is a significant number of *amphorae*. The number of containers from the coast of Tunisia stands out (fig. 19, 2-3). The rim of a Spatheion amphora, classified as a variant of the transition between types 1 and 2, is particularly interesting (fig. 19, 4). These are common in contexts from the third quarter of the fifth century onwards²⁶. Other finds in the same contexts point to a similar timescale (fig. 19, 5-8).

²⁴ Bierbrauer type III (see BIERBRAUER 1987).

²⁵ BONIFAY 2004: 285, fig. 158, 5 (type 50).

²⁶ A precise comparison can be found with and example from Marseilles (BONIFAY, PIERI 1995, fig. 1, n. 4). For the other examples from Aquileia see DOBREVA *forthcoming*.



Fig. 20. Site 1. Some of the amphorae found beneath the outer curtain wall (53, 54 and 55): 1-4. African amphorae (photo Sabrina Zago).

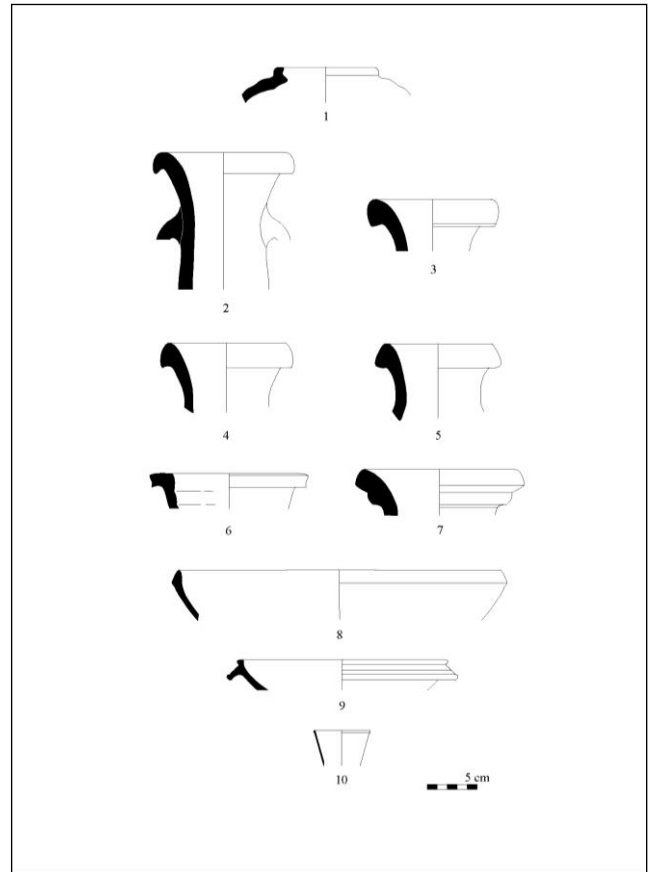


Fig. 21. Site 1. Selected materials found between the two walls connected to the recent use of the ramp: 1. Gaza amphora; 2-7. African amphorae; 8. African Red slip ware; 9. African common ware; 10. Glass beaker (drawings Sabrina Zago).

Moving on to the outer wall, the most interesting aspect is the method of ground consolidation and underpinning. This consisted of a complex system of whole *amphorae* inserted vertically into the ground (53, 54, 55, 56 e 1006) along with timber piling. This French drain worked as a conduit, draining the water off the site via the cavity formed by the empty *amphorae* (fig. 6). The types of amphora are typical of the fifth century CE. They include a Key 25.2, a Spatheion 1 (fig. 20, 1-2), found in the first half and mid fifth century, and a Key 36, commonly found in contexts from the same century (fig. 20, 3).

The final context taken into account lay between the two walls consists of a structured floor surface, possibly a ramp connecting the two walls via a footpath (§ 1.3). So far three distinct beaten floor surfaces have come to light, each covered with its own accumulation of silty sand debris (1019, 1026 e 1035). The earliest floor surface has not yet been excavated, but the finds from the other two place them firmly in the fifth century CE. There is an abundance of finds from the most recent level (1019) (see table 2). For the most part they date to the fifth century CE, possibly the middle years. Evidence for this comes in the shape of various types of *amphorae*, Spatheion 1, Key 36, Key 52 and LR 1 and LR 4 (fig. 21, 1-7). The other pottery finds include ARSW. There is a Hayes 61A/B3, typical of deposits from the middle and second half of the fifth century CE (fig. 21, 8). There is also African kitchenware, including a late variant of a Hayes 196 type, dated to between the fourth and mid fifth century CE. The second floor layer (1026) also dates to the fifth century, with some finds hinting at the first half. This is particularly true of the Key 59 type amphora and the data illustrated in fig. 22, 3. This presumed date awaits confirmation from the ongoing coin analysis.

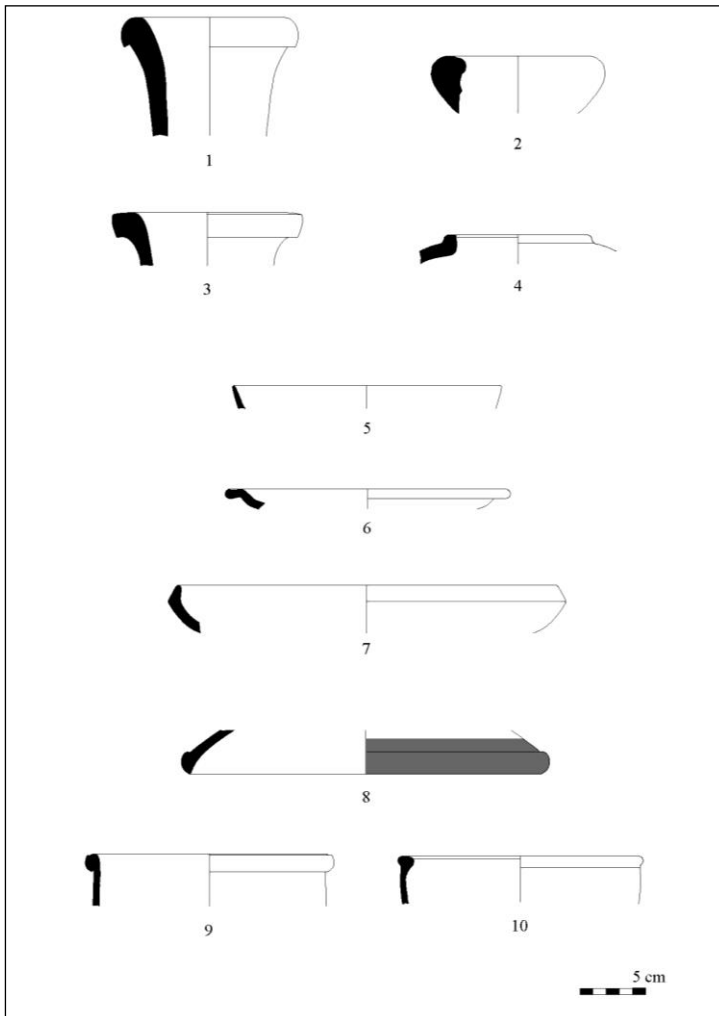


Fig. 22. Site 1. Pottery found between the two walls connected to the previous use of the ramp: 1-3. African amphorae; 4. Gaza amphora; 5-7. African Red slip ware; 8-10. African cooking ware (drawings Vittoria Canciani).

The structure is sealed by a further three layers (**16**, **19**, **20**). This prevalently sandy deposit apparently accumulated once the ramp or staircase had fallen into disuse. The finds date this phase to between the second half of the fifth and the first half of the sixth century CE. There is a concentration of finds from the second half of the fifth. These include the African Spatheion 2 and Albenga 11-12 type *amphorae* (fig. 19, 1), typical of the period. These are accompanied by the eastern Ephesus 56 and TRC 1, as well as the LR 1 and LR 4 types. The finds record also includes ARSW from the same period, such as the Hayes 61 type plate, a late variant of a Hayes 61A/B3 type, as well as a Hayes 32/58.

4.2.2 The contexts associated with the market place

A series of test pits sunk in 2018 revealed that the area had already been occupied prior to the market-places being laid out. Apart from the above-mentioned constructions (§ 2.1) a drainage system was recorded. Its alternating layers of sand and clay (**166**, **167**) not only drained, but also consolidated the land. The finds from these contexts date back to the Flavian period. There is a selection of fine ware, with thin walled vessels, *terra sigillata* from Arezzo, Northern Italy, Gaul and the East, alongside kitchenware. The latter include vessels in Internally red-slipped ware, Tyrrhenian and Aegean common pottery, as well as locally or regionally produced coarse ware. The transport containers tend to have been manufactured in the region of the Adriatic. These include Dressel 6A and Dressel 2-4 *amphorae* for transporting wine (see table 3).

Once the land had been drained and consolidated an intense period of building activity followed, with the construction of a first phase of the marketplaces. The finds from the dump layers aimed at raising the ground

US	Class	Form	MNI
118	African Red slip ware	plate	2
		bowl	2
		vase with listle	1
	Local/regional common ware	<i>olpe</i>	1
	Local/regional coarse ware	pan	1
	African cooking ware	pan	1
		undetermined	1
	Illumintaion objects	lamp	1
	Transport containers	Adriatic amphora	1
		African amphora	2
		Eastern amphora	1
	Metal finds	coin	69
		nail	1
	Glass finds	cup	1
		bottle	1
		undetermined	1
		undetermined	1
120	<i>Terra sigillata aretina</i>	cup	1
		undetermined	1
	North Italic <i>terra sigillata</i>	cup	3
		plate	3
		undetermined	2
	African Red slip ware	undetermined	1
	Thin walled pottery	mini pot	1
	Local/regional common ware	face pot	1
		jug	2
	Hellenistic mould-made pottery	bowl	1
	Tyrrhenian cooking ware	pan	1
	African cooking ware	lid	1
	Local/regional coarse ware	mortar	1
		lid	2
		cooking pot	2
		undetermined	8
	Illumintaion objects	lamp	4
Transport containers	Eastern amphora	1	
Metal finds	nail	3	
Glass finds	cup	2	
	undetermined	3	
139	Italic <i>terra sigillata</i>	plate	2
		bowl	2
		<i>olpe</i>	1

	mini cup	1
	bowl	4
	plate	3
	lid	1
	<i>olpe</i>	6
North Italic <i>terra sigillata</i>	undetermined	8
Thin walled pottery	mini cup	7
	undetermined	2
Illumination objects	lamp	5
	plate	3
Eastern <i>terra sigillata</i>	bowl	2
African common ware	jug	1
	lid	1
African cooking ware	undetermined	1
Internal Red-slip pottery	pan	3
	pan	5
Tyrrhenian cooking ware	lid	2
	pan	3
	cooking pot	20
	lid	6
	<i>clibanus</i>	1
Local/regional coarse ware	undetermined	12
	cooking pot	2
	mini pot	1
Aegean cooking ware	kettle	1
	jug	3
	cup	1
Local/regional common ware	fruit bowl	1
	<i>olpe</i>	3
Local/regional coated pottery	bowl	1
	Adriatic amphora	2
	amphora lid	3
	Eastern amphora	3
Transport containers	Tyrrhenian amphora	2
	bowl	1
	balsamar	1
Glass finds	undetermined	2
	spindle	1
Worked bone finds	hair niddle	1
	nail	1
	name plate	1
Metal finds	decorative elem.	1

164	<i>Terra sigillata</i> aretina	plate	1
		bowl	2
	North Italic <i>terra sigillata</i>	<i>olpe</i>	2
		plate	5
	Thin walled pottery	mini cup	1
		undetermined	1
	Local/regional common ware	amphora	1
		<i>amphoriskos</i>	1
		jug	1
	Local/regional coated pottery	jug	2
	Local/regional coarse ware	<i>clibanus</i>	1
		lid	1
		cooking pot	4
	Aegean cooking ware	jug/kettle	1
		mini pot	1
	Transport containers	Eastern amphora	2
Iberian amphora		1	
Glass finds	bowl	2	
	undetermined	1	
166	<i>Terra sigillata</i> aretina	bowl	3
	North Italic <i>terra sigillata</i>	bowl	1
		plate	2
	Eastern <i>terra sigillata</i>	bowl	1
	Thin walled pottery	mini cup	1
		glass	1
	Local/regional common ware	amphor	1
		balsamar	1
	Local/regional coarse ware	cooking pot	5
		lid	1
		undetermined	2
	Tyrrhenian cooking ware	lid	1
	Aegean cooking ware	undetermined	1
	Transport containers	Adriatic amphora	2
		amphora lid	2
	Glass finds	bowl	2
Metal finds	coin	1	
Worked bone finds	hair niddle	1	
167	Gaulish <i>terra sigillata</i>	plate	1
	Eastern <i>terra sigillata</i> B	plate	1
		mini cup	1
	North Italic <i>terra sigillata</i>	plate	3
<i>olpe</i>		2	

		mini cup	1
		undetermined	1
	Thin walled pottery	mini cup	1
	Local/regional common ware	jug	1
	Local/regional coarse ware	lid	2
		cooking pot	1
		undetermined	4
	Tyrrhenian cooking ware	pan	1
	Internal Red-slip pottery	pan	2
	Aegean cooking ware	casserole	3
	African cooking ware	lid	1
		casserole	1
		undetermined	2
	Glass finds	glass	1
	Metal finds	name plate	1
		undetermined	1
170	Italic <i>terra sigillata</i>	plate	2
		undetermined	1
	North Italic <i>terra sigillata</i>	plate	3
		<i>olpe</i>	3
	Eastern <i>terra sigillata</i> B	undetermined	1
	Thin walled pottery	mini cup	1
		undetermined	1
	Local/regional common ware	jug	1
	Local/regional coated pottery	bowl	1
	Local/regional coarse ware	cooking pot	1
		mortar	1
	Transport containers	Adriatic amphora	1
		amphora lid	1
		African amphora	2
		Eastern amphora	2
		Tyrrhenian amphora	1
	228	Black gloss pottery	plate
lamp			1
Thin walled pottery		mini cup	2
		mini pot	2
Eastern <i>terra sigillata</i>		jug	2
African Red slip ware		plate	1
		bowl	1
		undetermined	1
Local/regional common ware	jug	2	
Local/regional coated pottery	undetermined	2	

	Late Roman glazed pottery	undetermined	3
	Aegean cooking ware	basin	1
	African cooking ware	casserole	1
		lid	2
	Local/regional coarse ware	lid	2
		basin-lid	2
		pan	3
		cooking pot	50
	Transport containers	amphora lid	1
		Adriatic amphora	5
	Bricks	roof tile	1
	<i>Pondera</i>	ceramics weight	1
	Glass finds	undetermined	2
	Metal finds	coin	1
246	African Red slip ware	plate	1
		lamp	1
	African cooking ware	undetermined	1
	Local/regional coarse ware	bowl	1
		cooking pot	1
	Transport containers	African amphora	3
		Eastern amphora	1
		amphora	2
Glass finds	glass	2	
Metal finds	coin	1	
277/321	African Red slip ware	undetermined	2
	Local/regional common ware	jug	1
		undetermined	1
	Transport containers	African amphora	7
		amphora	1
	Glass finds	bowl	1
		glass	4
Metal finds	coin	3	
280/287	African Red slip ware	bowl	1
	Transport containers	amphora	1
		bowl	2
	Glass finds	glass	1
		playing element	1
Metal finds	coin	14	
309	<i>Terra sigillata</i> aretina	plate	1
	African Red slip ware	undetermined	1
	Illumintaion objects	lamp	1
	Transport containers	African amphora	1

	Glass finds	undetermined	2
	Metal finds	coin	1
327	African Red slip ware	bowl	3
		plate	2
		undetermined	1
	Eastern terra sigillata	bowl	1
	Local/regional coarse ware	undetermined	1
	Transport containers	African amphora	2
	Glass finds	wine taster	2
		decoration	1
Metal finds	coin	2	
332	African red slip ware	undetermined	2
	Local/regional coarse ware	bowl	2
		undetermined	1
	Transport containers	Eastern amphora	1
	Glass finds	wine taster	1
	Metal finds	coin	1

Table 3. Summarised data of the “diagnostic” finds recovered in some key contexts associated with the market place, site 2 (data processing Diana Dobрева).

level prior to construction were used to date this period. The contexts in question (**139, 170, 164, 120**) had frequent potsherds and fragments of brick and tile. Most of the finds date to between the second and third century CE. This is especially true of the thin walled beakers and bowls produced in Central and Northern Italy and the *terra sigillata aretina* and from Northern Italy, along with the fragments of internally red-slipped frying pans. The handle of an Iberian Dressel 20 amphora from the same context fits into the same chronology (table 3 and fig. 23, 3)²⁷. The numerous earlier finds mixed in with those from the building phase indicates that this was a secondary deposit. It also backs up the idea that the area was already in use prior to the first market building. Among the residual finds a *terra sigillata* Dragendorff 29 type cup from Southern Gaul stands out. This example has a curling vegetal decoration, very common in the period between Nero and Vespasian (fig. 23, 1-2). The ex Pasqualis Dragendorff 29 is very similar to a cup found on the Punta dei Cocci site, in the *lacus Timavi* area. Compared to other sites on the upper Adriatic, Punta dei Cocci and Aquileia stand out for their high amount of Gaulish *terra sigillata*²⁸. Another prize piece among the residual finds is a ribbed Isings 3 blue glass cup. This type of cup was very common among late first and the first half of the second century CE glass vessels. It has been found in several parts of Aquileia on excavations both old and new²⁹ (fig. 23, 4).

Further important information about the area’s evolution was gleaned from the dump layers (**332** and **327**) used to raise the ground surface during the renovation of the portico floor surface in the new market building excavated in 2019 (§ 2.2). The finds record from the two contexts point to a date somewhere in the third quarter of the fifth century CE. Evidence comes in the shape of a Hayes 91B type ARS D bowl (fig. 23, 5). These are frequently found in mid fifth century contexts. There is also a variant of a Spatheion amphora, in a transition between types 1 and 2. An example had already been found in contexts associated with the curtain walls. The contexts (**280/287**) associated with the first collapsed structure in the new market building also date to the second half of the fifth century. Among the remains of the burnt timber roof frame a Hayes 61 type bowl came to light in TSA D. It has a groove under the rim, typical of the second half of the fifth century CE. There

²⁷ A modest number of Dressel 20 *amphorae* have been found in various parts of the ancient town of Aquileia in first to third century CE contexts: BONETTO, DOBREVA 2012: 43, tav. I, 5 with bibliography and GADDI 2018: 375.

²⁸ See DONAT 2015: 42, fig. 4.

²⁹ An in depth typological analysis of the different variants Isings 3 cups can be found in MANDRUZZATO 2006.

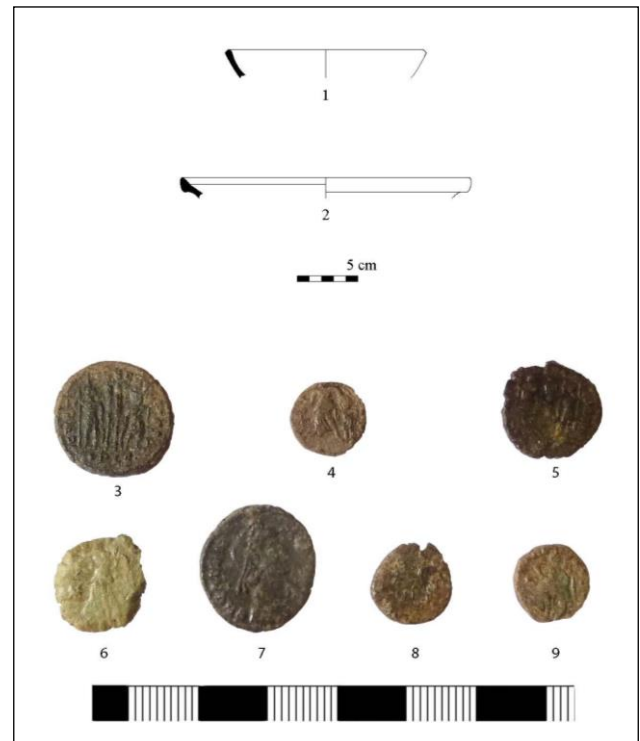
Fig. 23. Some significant finds from site 2: 1-2. Bowl in South Gaulish terra sigillata; 3. Iberian amphora; 4. Glass ribbed bowl; 5. African Red slip ware bowl (photo Sabrina Zago).

Fig. 24. Site 2. Pottery sherds and coins recuperated beneath the burnt timber beams of the collapsed portico roof of the west market building (118): 1-2. ARSW plates; 3, 5. *Follis*/centenionales GLORIA EXERCITVS type (330 – 340 CE ca); 4, 8-9. AE4 SALVS REI PVBLICAE type (388 – 402 CE); 6-7. Valentinian coins (364-388 CE). See clipping traces on the coin n. 6 which testify coin debasement and its circulation still in the mid V century CE (drawings Vittoria Canciani, photo Andrea Stella, graphics Diana Dobreva).

was also a glass Isings 106c beaker. These have a truncated cone shape with a cut rim. They are a frequent find on sites in Aquileia, especially in contexts dating to between the second quarter of the fourth and mid fifth century CE³⁰.

Following the roof caving in, the thick dump layer (277/321) spread over the rubble also seems to date to the fifth century. The lack of finds makes it difficult to date it more precisely. The few that there are include an eastern LR 1 type amphora.

From the evidence on hand the market building seems to have become derelict at the end of the fifth or in the first decades of the sixth century CE. This followed a violent fire (§ 2.3). Evidence for this date comes from the finds recuperated beneath the burnt timber beams of the collapsed portico roof of the west market building (118, 246, 309). These included eastern Ephesus 56 and LR 2 type *amphorae* as well as African Albenga 11-12 type ones. The ARS D Atlante X type lamp dates to the same period (table 3). The finds record for the traces of fire destruction excavated on the central market building in 2018 date to the same period. It may be that both market buildings fell into disuse at the same time. The finds from the central market building point to a date between the second half of the fifth and the first quarter of the sixth century CE. A date for the fire is suggested by the coin, pottery and glass finds, most of which date to the second half of the fifth century CE³¹. The ARS includes a late variant of a Hayes 91B type plate along with a Hayes 87A/88 type (fig. 24, 1-2). There are also Hayes 81 type cups and African Spatheion 1 type and eastern Ephesus 56 *amphorae*.



³⁰ MANDRUZZATO, MARCANTE 2005, nn. cat. 33-60.

³¹ Many thanks to Andrea Stella who is proceeding the coin finds.

Fig. 25. Site 2. Cooking pot in local/regional coarse ware from context 228 (photo Sabrina Zago).



Even after the second fire the area remained in use, though for different purposes. A fragment of a coarse ware jar may date the rectangular structure it was found in from the sixth century CE onwards (fig. 25). The structure may have been a cistern (228) (§ 2.3).

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5. Initial considerations and potential future research

The site in question is vast and encompasses numerous archaeological and historical complexities. Just two digging seasons have not been enough to unravel these in an attempt to paint a clear picture of the evolution of this part of town. However, the data gathered so far has already shed an interesting light on the town in Late Antiquity. The following sums up what has been documented so far, though it must be stressed that this is work in progress and may be subject to future changes.

5.1 The market place

The new market building that we started excavating in 2019 is part of the same complex as the three uncovered by Brusin (fig. 26, East/West section). The monumentality of the shopping complex is clear to see. The commercial centre must have played a crucial part in the financial and social life of the town. The nearby Theodorian Basilica had been built in the early fourth century. It stands immediately north of what was a large *horreum* or warehouse, overlooking the market, which may even have been a part of the same complex (fig. 27).

The two markets to the west were about twenty-five or twenty six metres long and 5.6 and 4.5 metres deep. They were probably both framed within a double portico. The piers may well have been made from timber. Only the pier bases remain and these show no signs of having had a masonry elevation. The roof would also have been made of timber. Evidence of this comes from the layers of burnt timber that accumulated when the building fell into disuse. The two parallel walls between the market buildings backed on to each other with no north-south alleyway between them. At the current state of research it is still unclear how the two buildings relate to each other and if there are some passages directed east-west between them.

We also need to understand the sewage system of the market place. From Brusin's plan of the eastern market building it is visible a long drain that runs north-south, may be directed to the river. Anyway, some fresh data would help to better understand this point.

The paved area of the central market building was slightly larger than the others, 7.7 metres deep and 32.5 metres long. The market stalls were made of timber, the beams of which would have been housed in slots in the stone bases. A side wall closing off the western end of the market building still hasn't been found as the area in question hasn't yet been subject to excavation either at the hands of Brusin or us. One of the next aims of our research will be to open up this part of the site to try and discover the relationship between the two markets. In the same season the eastern market building will be investigated. Brusin devoted little time to it, but the geophysical survey brought to light an as yet unexcavated circular structure which could prove interesting.

The commercial complex in the former Pasqualis property is an exceptional example from dimensional and planimetric point of view that could be hardly compared to other Late Imperial cities. We can suppose that different market buildings were used to sell various foodstuffs and goods. It seems likely that the western market was a grain market. This is thanks to the piles of carbonised kernels found in the layers belonging to the

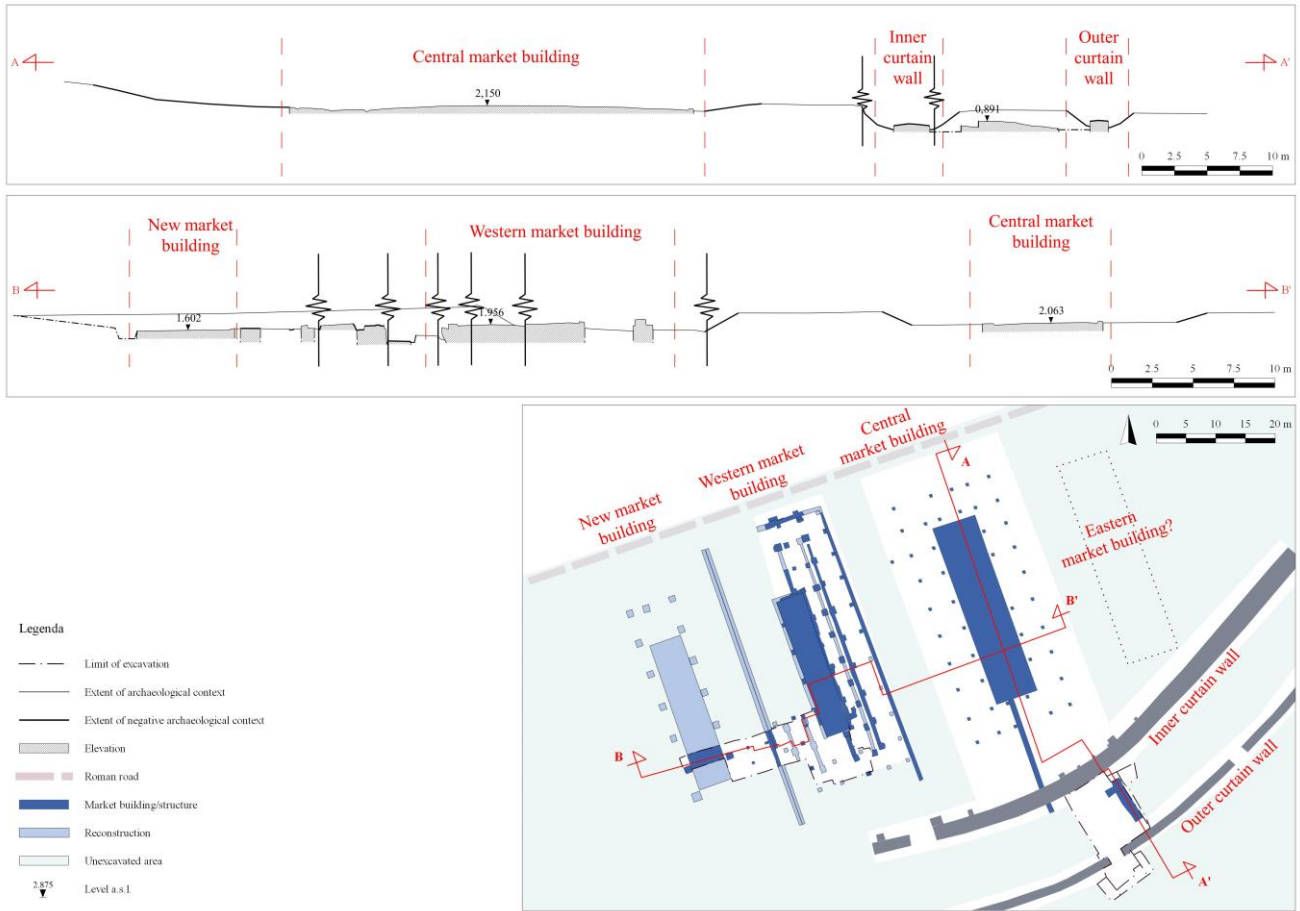


Fig. 26. Site plan and East/West and North-South sections (illustration Valeria Grazioli).



Fig. 27. 3D reconstruction of the horreum and the market building (thanks to the Fondazione Aquileia).

phase when the market had fallen into disuse³². As Brusin had pointed out, the central market building was probably for foodstuffs that needed to be washed down, either a fishmonger's or butcher's market. This because of the water channel around the sales area and the well at its northern end. The evidence suggests that various parts of the market complex were destined for different types of merchandise.

At this stage of the excavation, the archaeological record from the two market buildings that we have studied point to a major phase of vitality around about the middle of the fifth century and to an extensive use of the market place (§ 4.2.2). However, as Brusin points out, at least two further phases of activity have been identified on the site, the earliest in the first century CE. It is still unclear what these earlier buildings were used for, let alone their ground plan. There is still no clear date for the two market buildings furthest to the east where no fresh data is available. For Brusin, the central one that has been best investigated fell into disuse when the building with decorated floors, dated to the V century CE, was built in its southwest corner.

The market entrance, again according to Brusin, given the lack of onsite evidence, was in the north, probably feeding off from the road directed east-west that was partly excavated in the 1990s in the Pasqualis house at the far western edge of the grounds³³. Some merchandise would also have arrived by river. The Site 1 excavation uncovered a system of ramps and passageways between the two curtain city walls in the southern part of the site. They centred on the westernmost of the three openings in the outer wall and are 2.5 m deep and located at a regular distance of 25 m each other (see fig. 26, North/South section). The system seems to date to the V century CE, during the last phase of activity on site. The complex was thriving in this crucial period in the history of Aquileia, a period still to be unravelled.

5.2 The city walls

Brusin uncovered the two walls in the southern part of the site. The imposing inner curtain wall was at least five and a half metres high. This information comes from the collapsed stretch of its elevation lying in Site 1. The wall was built using material recuperated from other town monuments. It would have stood as a much needed robust defence for the whole town in particularly troublesome times. Brusin believed it dated back to the siege of Maximian the Thracian in 268 CE. Nowadays most people associate it with the first half of the IV century CE³⁴.

The outer curtain wall is half the width of the inner. It was built after a complex phase of land reclamation and consolidation, given the swampy nature of the subsoil. Oak piles were driven into the soil³⁵ and French drains with *amphorae* laid. Future research will attempt to reveal the function of the timber structure described in depth in § 1.2. It may be a collapsed gate for one of the passageways³⁶, still lying where it had fallen.

5.3 The phases

The excavations have brought to light a phase of activity on site prior to the construction of the market place. On Site 3 the 1990s excavation was reopened. A wall with at least four steps probably leading down to the river was re-examined. It had been interpreted as part of a jetty on the River Natissa dating back to between the first and second century CE³⁷. Its construction seems similar to another stretch of wall that came to light on Site 1 in 2018, as yet without a date. From the stratigraphy it is clearly earlier than the inner curtain wall. Samples of mortar were taken from the two walls and we're still waiting for the results³⁸. If they turn out to be parts of the same construction, it would suggest that there was a riverside complex long before the shopping complex was built. It would have kept the River Natissa at bay, a river that stretched further north compared to its course nowadays. It may be that this earlier wall was in use at the same time as the few and ephemeral, to date, traces of first century CE buildings pre-existent to the market place. These include a pier and signal the existence of a phase of activity until now unrecorded in this part of town (see § 4.2.2).

³² Paleobotanical analysis of the kernels is underway with Maria Bosco. It could provide very interesting data about foodstuffs of the time. Ongoing radiocarbon dating will provide important information about when the complex fell into disrepair.

³³ See details in BASSO, DOBREVA 2020.

³⁴ On a date for the wall, see BONETTO 2009 with the previous bibliography.

³⁵ Xilological and dendrochronological analysis are under way with Nicoletta Martinelli.

³⁶ The passageways, about two and a half metres wide, were some twenty-five metres one from the other.

³⁷ BASSO, DOBREVA 2020.

³⁸ Analysis carried out by Simone Dilaria.

When the imposing inner curtain wall was built the earlier embankment walls were razed and used in part as the foundations for the new wall. At the time the river flowed along its south side, just as it did on the river port further north. At a later moment, thanks to a system of land reclamation, the north bank of the river was shifted southwards as far as its current position. Evidence of this comes in the form of the imposing amount of dump layers with frequent rubble, pottery and animal bone finds mixed with sand, gravel and river cobbles. These were visible in core samples B1 to B3 taken in 2019 (see fig. 1). The thickness of the dump increases notably towards the south. In the core furthest to the south the dump layers were an impressive nine and a half metres thick³⁹. This could well be, though more on site evidence is still required, a part of that complex and difficult project to divert the course of the River Natissa recounted by *Ammianus Marcellinus* in his description of the siege of Julian in 361 CE.

The earliest market place structures appear to date to the third century CE (§ 4.2.2). The monumental shopping centre that we see today is the shape it had during the fifth century, but more chronological details are still to come from the new excavation. This was a major commercial centre with four distinct shopping areas, one next to the other. In Late Antiquity this would have been the town's financial and social hub or forum, taking the place of the Republican and Imperial one, which by this point had fallen into disrepair⁴⁰. The town by now was clustered around its religious hub, represented by the basilica. In order to further protect it, probably, in the fifth century CE, the outer wall was built on the unstable dump layers that had been used to divert the river's course. As a result, prior to its construction, it had been necessary to consolidate the subsoil with wooden piling and the *amphorae* used in French drains described above. Unlike the imposing and unbreachable inner curtain wall this one needed openings giving on to the river with which it lived in osmosis. The merchandise would have been offloaded through the openings mentioned above and then transported to the market place via the north/south ramp and east/west passageways uncovered on Site 1, just north of one of the openings. There must have been a similar point of access through the inner wall, though this is yet to be identified. The apparent discontinuity of the inner wall at the same height as the opening in the outer wall we re-examined to the north suggests said point of access may have been there. The heavy spoliation that the wall has been subjected to over the years⁴¹ makes it difficult to say with any certainty that this is the case, or to identify any other possible points of access.

The ground plan of the building with mosaic floors uncovered by Brusin in the southeast corner of the central market building is yet to be established, as is its relationship with the market building itself. Brusin dated it to the fifth century.

At this point in the research it is still unclear exactly when the area fell into disuse. Some evidence points to this happening at the end of the fifth century or the first decades of the sixth. Some walls and the two graves uncovered by Brusin in the layers sealing the collapsed walls of the market place would have been a part of these phases. At a later time could be dated a series of postholes that cut the layers sealing the collapsed and the abandon of the market. The numerous robber trenches that have been excavated go to show that here too, as in the rest of town, the ancient buildings were used as a quarry for building material through the centuries.

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³⁹ The core samples were read and interpreted by Cristiano Nicosia, who we take this opportunity to thank.

⁴⁰ See MASELLI SCOTTI, RUBINICH 2009: 99.

⁴¹ Evidence comes in the shape of slots visible on the surface of some of the blocks, where a wooden wedge would have been inserted to split the stone.

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