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edited by Dávid Bartus, Zsolt Mráv and Melinda Szabó

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Budapest 2024



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Budapest, 20–24 September 2022

Edited by  
Dávid BARTUS – Zsolt MRÁV – Melinda SZABÓ

Budapest, 2024

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## Bronze casting in Late Antiquity in the Marche Region

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**Abstract:** This essay reviews the discovery of three sites where deposits of bronze fragments have been found, in the Roman cities of *Pisaurum*, *Sentinum* and *Potentia*. Each site yielded small bronze fragments and some tools, which lead us to suppose that these were sites of Late Antique foundries, where large bronze statues and other bronze objects were broken up to be remelted. The foundries were located on land previously occupied by taverns in the forum area or by residential quarters. This means that the urban plan of the cities had already been partially transformed, probably due to Christianisation and the construction of churches, which became the new community centres, to the detriment of the older areas of the forum. The rampant poverty and shortage of raw materials, especially metals, made foundries indispensable and, consequently, their widespread presence, even within the cities, probably became customary. Perhaps the numerous bronze fragments found in other centres of the region should also be interpreted in this same sense, as indications of foundries, even if the structures where the metal was worked have not been preserved.

**Keywords:** bronze, bronze casting, foundry, bronze tools, bronze fragments, large bronze statue, Late Antiquity, Early Middle Age

### The Marche Region between Late Antiquity and the Early Middle Ages

The first crisis of the peripheral territories of the Roman Empire in the Marche region, which included part of ancient Umbria and Picenum, had already begun during the third century. In that moment, the exhaustion of the Roman Empire's expansionist impulse and the consequent lack of income from subjected populations' taxes, that had previously funded the heavy costs of the state apparatus, caused a sharp increase in taxes for small and medium landowners.<sup>1</sup> Their lands were thus often sold to large landowners, who centralized the wealth in their own hands, widening the gap between rich and poor and causing a demographic crisis. The lower classes found support in a *patronus* or enlisted in the army. The first invasion of the barbarian Jutungi in these territories dates back to this period. In 271 AD they attacked and destroyed the walls of *Pisaurum* and *Fanum Fortunae* where they were defeated by the troops of Aurelian (Aurelio Vittore, *Epit.*, 35, 2).<sup>2</sup> The victory was commemorated by two inscriptions on marble bases, but the dangerous situation led to the immediate rebuilding of the walls of the two cities, that was assigned to *Caius Iulius Priscianus*, as *prepositus muris* (recorded in the epigraphs mentioned above), who also erected two bronze statues of Aurelian to commemorate this victory against the Jutungi.<sup>3</sup> The contraction of the cities began in this period, when the walls

1 DALL'AGLIO 2004a, 67–69; PACI 2004, 1–24. In general see: ALFIERI 1983, 9–34; MOSCATELLI – SACCO 2021.

2 ALFIERI 1983, 27. On the literary sources also see: BOCCI 2004, 25–61.

3 CIL XI, 6308, 6309; CRESCI MARRONE – MENNELLA 1984, 160–163; LUNI 1989, 55; DALL'AGLIO 1998, 277–278; BOCCI 2004, 51; DALL'AGLIO 2004a, 68–69.

returned to being a bulwark for the safety of the population.<sup>4</sup> Even the living spaces in the domus were transformed in response to the new circumstances: damages were restored in an approximate way, and inexpensive or reused materials were employed in reconstruction. At this point, the concept of the house began to transform, both due to reduced purchasing power and the lack of marble or metals, which were often replaced by wood, bringing the new buildings closer and closer to the house model widespread among the populations of central Europe.<sup>5</sup>

At the end of the third century, the new organization of the imperial territory implemented by Diocletian inserted the Marche region into the *Flaminia et Picenum* province<sup>6</sup> (Fig. 1). This territory supplied food to Rome but, at the end of the fourth century, the increasing importance of northern Italy imposed a new division in two provinces: the *Flaminia et Picenum annonarium*, that included the northern part of the territory up to Ravenna and supplied Milan, and the *Picenum suburbicarium* in the southern part, bordering the Esino river, which supplied Rome<sup>7</sup> (Fig. 2). The intensive exploitation of latifundia involved the abandonment of less fertile areas, now left uncultivated due to the scarcity of laborers in the wake of the demographic crisis. The uncultivated lands were invaded by woods or, in the plains of the valley floor and near the mouths of the rivers, were inundated, causing swamping and the spread of malaria. The phenomenon of brigandage also began to grow, especially along the consular roads, as documented by an inscription of 246 AD recalling the intervention of soldiers against marauders at the Furlo gorge.<sup>8</sup> In the fourth century the farms scattered throughout the territory disappeared, replaced by large manor houses.<sup>9</sup>



Fig 1. Regio Flaminia et Picenum by Diocletian (end of 3rd century) (by ALFIERI 1991).



Fig. 2. Flaminia et Picenum Annonarium (North); Picenum Suburbicarium (South) (end of 4th century) (by ALFIERI 1991).

4 DESTRO 2004, 99–121; DESTRO 2010, 93–98; CIRELLI 2014; GIORGI 2019, 20–31. In general see: CIRELLI et al. 2015.

5 DALL'AGLIO 2004a, 69. On this subject, see some examples on the Proceedings of the Ravenna Conference: AUGENTI 2006.

6 LUNI 1989, 55; BOCCI 2004, 29.

7 ALFIERI 1983, 12–16; LUNI 1989, 55; BOCCI 2004, 29–30.

8 CIL XI 6107; LUNI 1989, 55; LUNI 2014. On the transformations of the cities and the territory between Late Antiquity and the early Middle Ages see SACCO 2016, 337–362; SACCO – VONA 2019, 179–200; MOSCATELLI 2014, 379–395; MOSCATELLI 2019, 181–195; CARBONI – VERMEULEN 2019a, 197–212.

9 See for example, in the Pesaro area, the site of Colombarone (PU) (DALL'AGLIO – VERGARI 2001), the transformation of the villa with nymphaeum of *Cupra Maritima* (AP) (FRAPICCINI et al. 2015); see also

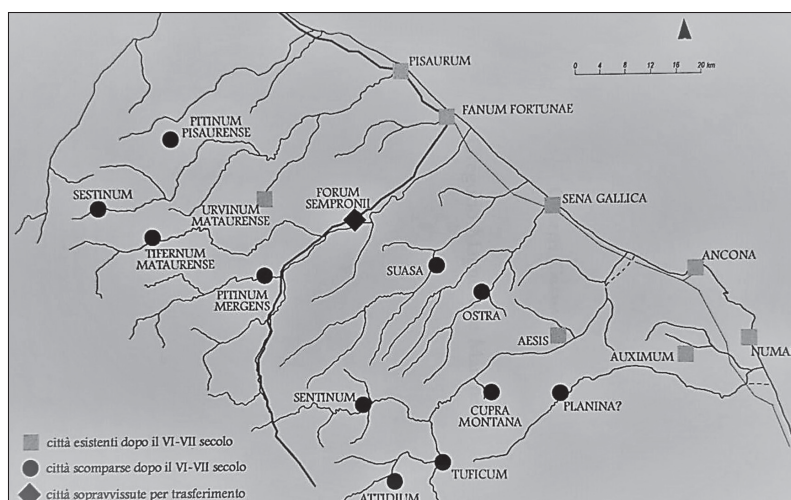


Fig. 3. Northern Roman cities survived or disappeared during Late Antiquity (by DESTRO 2004).

At the beginning of the fifth century, the raids of the Visigoths headed by Alaric (408–410) caused a serious crisis for the empire and great depredations by brigand raids of the territories of *Piceno suburbicarium*, controlled by Saro (Zos., *Hist. nova*, V, 37, 3; VI, 13, 2).<sup>10</sup> Due to the great devastation, the emperor Honorius in 408 granted tax relief for the first time to the populations of the *Suburbicarium*; this was followed by two similar measures in 413 and 418 (*Cod. Theod.* IV, 28, 4; XI, 28, 7; XI, 28, 12).<sup>11</sup> Subsequently, Theodoric and his nephew Atalaric tried to restore the buildings of the cities through the reuse of materials from abandoned structures and to reorganize the territory (Cassiod. *Variae*, I, 28; III, 9–10; IV, 31) with the support of the new aristocracy and the bishops. Public buildings and urban infrastructures were rebuilt or recovered, and new places of worship were built as an expression of evergetism, submission to the Church and, sometimes, expiation.<sup>12</sup>

These attempts by Theodoric to rebuild the urban texture were abruptly halted by the Gothic–Byzantine War (535–553) which hit this region, already severely tried, with new devastation, destroying the cities and plundering the countryside. Poverty and famine caused serious deterioration and the abandonment of many of the 36 Roman cities remembered by Pliny (*Nat. Hist.*, III, 110–114), especially the less defended cities or those located where the armies passed.<sup>13</sup> Procopius, in his *Belium Gothicum* (II, 12; 20), reported that 50,000 peasants died of starvation and that only nine cities survived (Fig. 3): *Pisaurum*, *Urvinum Mataurense*, *Fanum Fortunae* and *Senna Gallica* in the North and *Ancona*, *Auximum*, *Urbs Salvia*, *Firmum* and *Asculum* in the South (Fig. 4).<sup>14</sup> However some cities,

DI FILIPPO BALESTRAZZI et al. 2019; the fourth century phase of the *villa* of Monte Torto at *Auximum* (AN) (PIGNOCCHI 2001) and the *villa* of Villamagna at *Urbs Salvia* (MC) (PACI – PERNA 2016, 1–14; PERNA 2021, 351–352). For an overview see VERREYKE – VERMEULEN 2009, 103–120.

10 ALFIERI 1983, 27; LUNI 1989, 56; BOCCI 2004, 51–52.

11 BOCCI 2004, 52–53.

12 The tendency of donors to finance religious works rather than buildings of public utility could be due to the difficulties of the communities to take on the commitment to guarantee their efficiency. It could also be due to the prevalence of the habit of donations to the Church, which procured for the bishop considerable wealth and ever greater power. See DALL’AGLIO 2004a, 69–70.

13 ALFIERI 1983, 19–20; BOCCI 2004, 47–51; DESTRO 2004, 99–121.

14 Recent investigations and reconsiderations lead us to believe that between the fifth and eighth centuries the phenomenon of abandonment could have affected less than a quarter of cities, since in some places such as *Potentia* and *Suasa*, a prolonged continuity of life is now documented up to at least the seventh century. See DESTRO 2014, 397–401; CIRELLI 2014, 41–42.



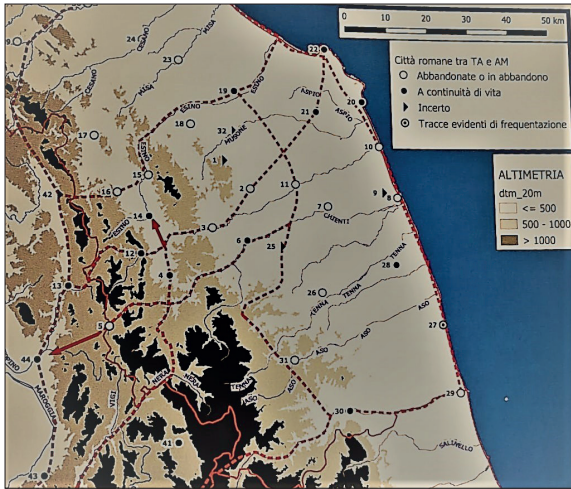


Fig. 4. Southern Roman cities survived or disappeared during Late Antiquity (MOSCATELLI 2021).

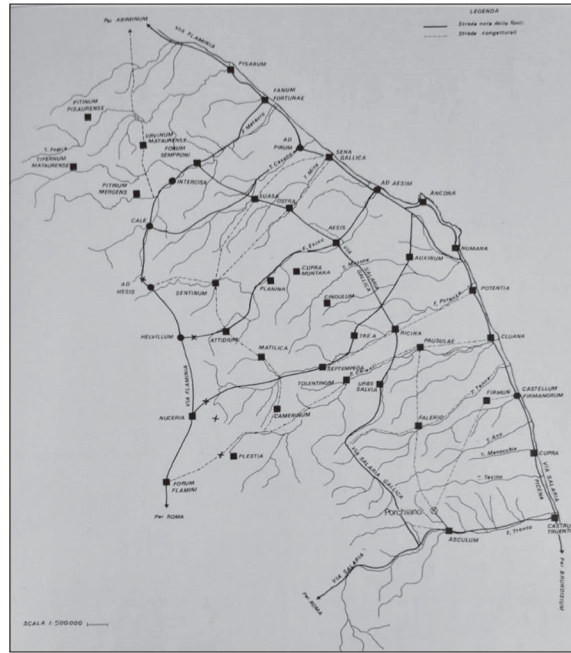


Fig. 5. The main roads of the Marche during the Roman Age (by DALL'AGLIO 2004a).

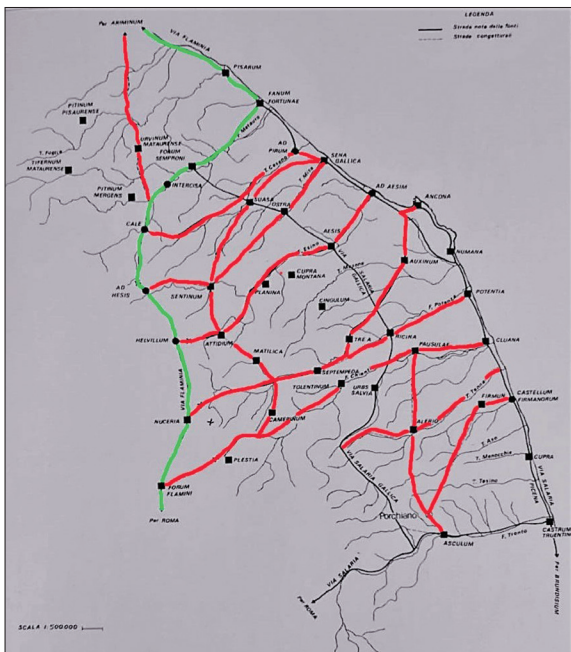


Fig. 6. Via Flaminia (green) and the secondary routs (red) during Late Antiquity (by DALL'AGLIO 2004a).

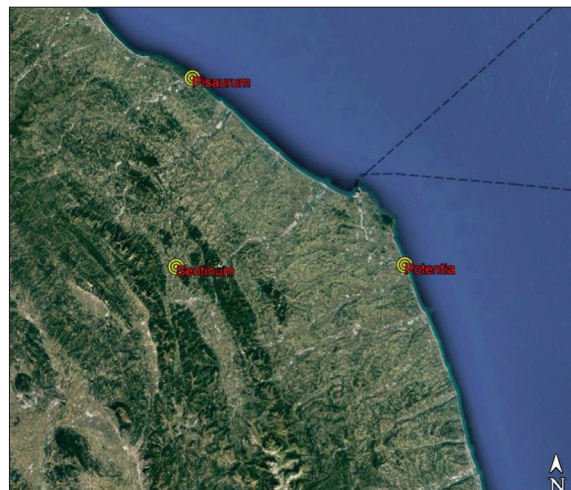


Fig. 7. The sites with remains of foundries: Pisaurum, Potentia, Sentinum.

such as *Pisaurum* and *Fanum* were defined as ‘polismata’ by Procopius (*Bell. Goth.*, III, 11, 32–34), i.e., ‘small cities’, as opposed to the *poleis*, i.e., the ‘cities’, of Ancona and Rimini. This definition, certainly not accidental, reveals the existence of a hierarchical system which divided the major cities from those which had become secondary in importance.<sup>15</sup> According to some scholars, climate change also influenced the economic situation: from the mid-fifth to the second half of the eighth century, temperatures began to decrease significantly, and rainfall increased.<sup>16</sup>

The demographic decline and the reduction of economic resources also impeded control of the territory and infrastructure, including the road network. Epigraphic testimonies document restoration

15 LUNI 1989, 57; DALL'AGLIO 2004a, 71.

16 DALL'AGLIO 1997, 97–104; GIORGI 2006, 124; CIRELLI 2014, 40.

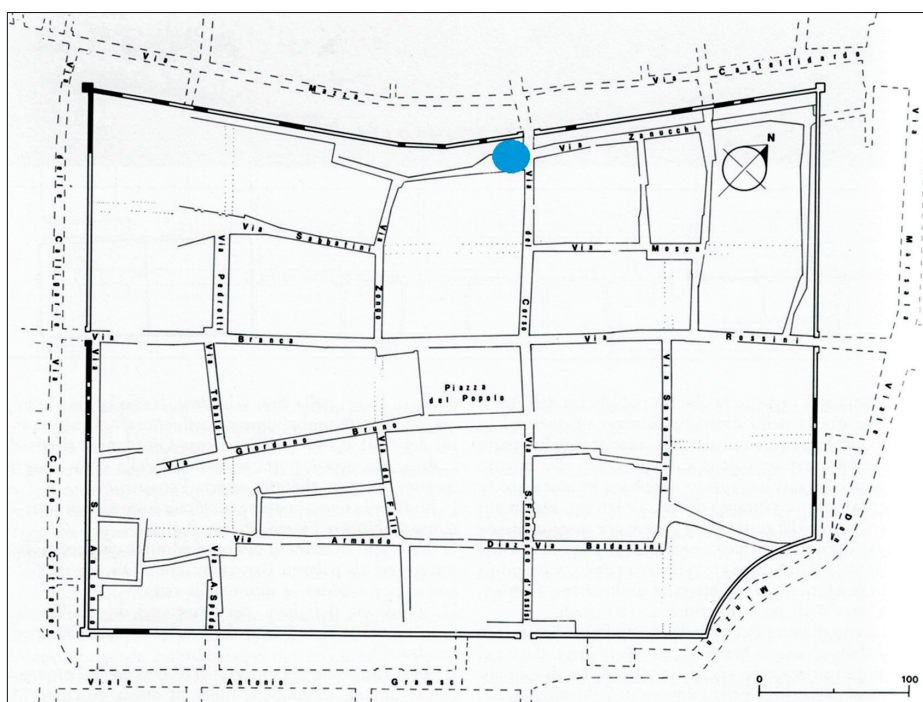


Fig. 8. Plan of Pisaurum with Barignani Palace, near the walls and the Ravenna Gate (by LUNI 1989).

interventions that reveal the state of degradation of the main roads.<sup>17</sup> Since the Republican Age, the viability of these territories had been centred on the Via Flaminia (Fig. 5), which was the main road between Rome and Ravenna, the two principal cities during the Gothic–Byzantine War, and which therefore became points of contention between the Goths and Byzantines.<sup>18</sup> Nevertheless, the secondary routes from the Flaminia towards the coast grew in importance since they were less controlled by the ranks of the opposing armies (Fig. 6). Consequently, while once notable cities lost their role and declined, some villages of the hinterland became more important as they controlled the Apennine passes and the alternative roads. In addition, in some cases, paths through valleys moved to the ridges of hills, and the population abandoned some coastal cities to also move into nearby hills. On the coast, the harbours of the main cities guaranteed their defence from attacks from the sea and ensured food supplies. In a north-south direction, the coastal road network was guaranteed by the *Salaria Picena* road, while in the immediate hinterland the *Salaria Gallica* road connected the cities of the middle river valleys.<sup>19</sup>

During these troubled centuries, especially at the time of the Gothic–Byzantine War, the gradual depopulation of the cities and shortage of raw materials, as is well known, led to the stripping and reuse of many materials, especially bronze. The contraction and consequent transformation of city planning entailed substantial changes. In *Pisaurum*, for example, hoarded materials have been found in some areas along the city walls which, due to the abandonment of domus and for military needs, had been left free and, therefore, could accommodate furnaces.<sup>20</sup> The transformations also concerned the domus themselves, where spaces were divided by partitions made of perishable or reused material, and the peristyles were transformed into vegetable gardens.

17 DALL'AGLIO 1996, 96–101; DALL'AGLIO 1998, 285–288; DESTRO 1999, 193–220; DALL'AGLIO 2004b, 63–97; GIORGI 2006, 111–156.

18 ALFIERI 1983, 16–19; DESTRO 1999, 175–192; PROFUMO 2000, 389–399; BOCCI 2004, 40–47; LUNI 2014.

19 GIORGI 2006, 125–136; CAMPAGNOLI – GIORGI 2007, 29–54; STAFFA 2007, 433–469.

20 DALL'AGLIO 2004a, 73. In general see: AUGENTI 2006; CIRELLI 2014.



The Langobard invasion of the peninsula in 568 AD soon also reached the Piceno and by 578 Ascoli Piceno was already occupied. The necropolis of Castel Trosino documents well the Langobard expansion into these territories, carried out by the Duke of Spoleto Faroaldo through the Via Salaria and its byways. Subsequently, with the submission of Fermo to the north, *Castrum Truentinum* (Martinsicuro, TE) to the east and *Interamnia* (Teramo)<sup>21</sup> to the south, the early Middle Ages were underway in the region. At the end of the sixth century, the northern territories became part of the Duchy of the Pentapolis, where, however, a significant Langobard presence has recently been highlighted.<sup>22</sup>

### Late Antique foundries at Pisaurum, Potentia and Sentinum

Some evident traces of bronze casting activities starting in Late Antiquity have survived in at least three sites in the region: *Pisaurum*, *Potentia* and *Sentinum* (Fig. 7).

*Pisaurum* (Pesaro, PU) was a Roman colony founded in 184 BC<sup>23</sup> in the *Ager Gallicus* at the mouth of *Pisaurum* river, on Adriatic coast. In ancient times, the sea reached the city walls, while the *Pisaurum* river flowed to the north, and the Genica stream flowed to the south. The city was crossed by the Via Flaminia, which coincided with one of the two main road axes.<sup>24</sup> An excavation was undertaken here in 1880, under the Barignani Palace (Fig. 8), where in 1540 the 'Idolino' and the bronze statuette of Eros-Hypnos *lampadophoros* were found.<sup>25</sup> This excavation brought to light a very interesting archaeological site, with a complex stratigraphy related to at least two different phases of an ancient, luxurious *domus* probably destroyed in Late Antiquity by a large fire.<sup>26</sup> The *domus* stood near the Ravennana Gate, which opened to the north along the *cardo maximus* and the Via Flaminia. Unfortunately, we do not have modern scientific documentation of the excavation, but Giuseppe Fiorelli and afterwards Ciro Antaldi observed in careful reports that the *domus* had an *atrium* with



Fig. 9. Finds from the foundry of Pisaurum, under Barignani Palace.



Fig. 10. Rein holders from Pisaurum, 3rd–4th century.

21 STAFFA 1997, 113–166.

22 SACCO – VONA 2022, 179–200.

23 On the history and discoveries in Pesaro see: VALAZZI 1989; DALL'AGLIO 2004a.

24 On the identification of the Flaminia as a *cardo* or *decumanus*, see LUNI 1989; DALL'AGLIO 1998, 275–276; DALL'AGLIO 2004a.

25 BESCHI 1983a, 161–176; BESCHI 1983b, 398–408; BESCHI 1998, 7–19; IOZZO 1998, 23–28; BESCHI 2000, 9–19; BESCHI 2002, 45–49; FRAPICCINI 2015, 283.

26 FRAPICCINI 2015, 289.

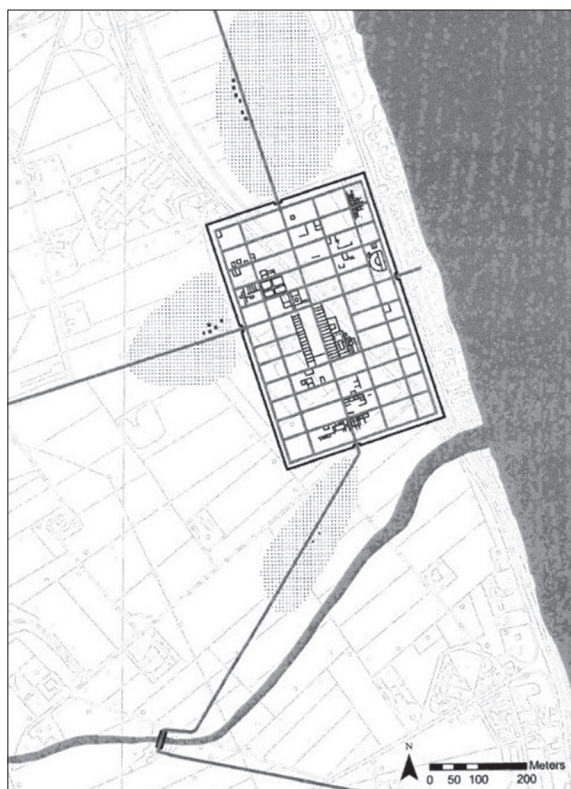


Fig. 11. Plan of Potentia (by VERMEULEN 2017).

a tetrastyle *impluvium*, transformed into a tank in a late phase.<sup>27</sup> The domus had many rooms and corridors with the remains of frescoes and mosaics and, in particular, a room with two mosaic pavements at different levels (one about 50 cm above the other), that testified to at least two different phases in the life of the building. Inside one of these rooms, originally open and adjoining with the atrium, many bronze objects were found: a notable *tabula patronatus* dedicated to the *Aufidii gens* dating back to 256 AD (Fig. 9), a little fragment of another of the same year, some appliques and fragments of furniture. All these finds were very fragmentary, sometimes reduced to simple slabs, and were used by the discoverers to reconstruct a single, improbable frame which was attributed to the *tabula patronatus*.<sup>28</sup> However, a more in-depth analysis, made possible by a recent restoration of the *tabula* and all elements of the “frame”,<sup>29</sup> has shown that the finds belonged to many different objects dating to different periods. Furthermore, some

27 FIORELLI 1880, 260–261; ANTALDI 1881, 18–22.

28 BESCHI 2002, 45–49.

29 AMADORI et al. 2015, 289–294.

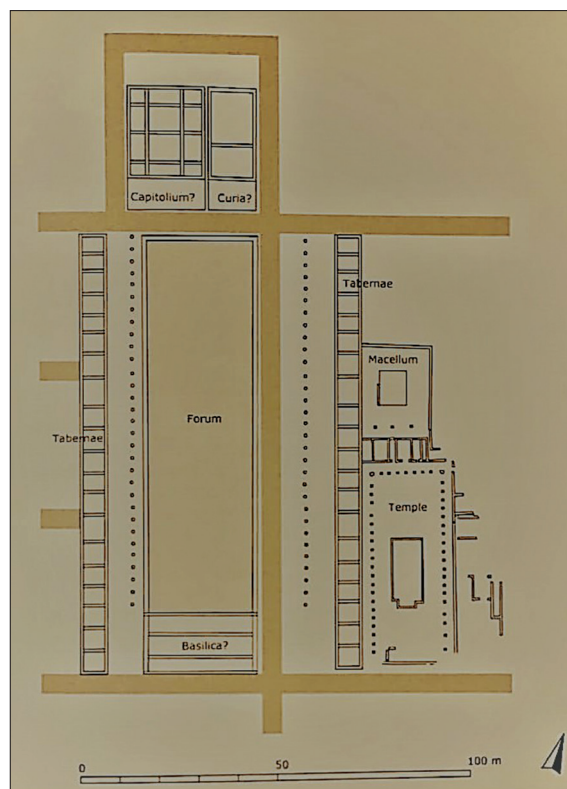


Fig. 12. Plan of Potentia: the temple, the *tabernae* and the *macellum* (by VERMEULEN 2017).



Fig. 13. Plan of Potentia: the temple, the *macellum* and the foundry (red) (by VERMEULEN 2017).



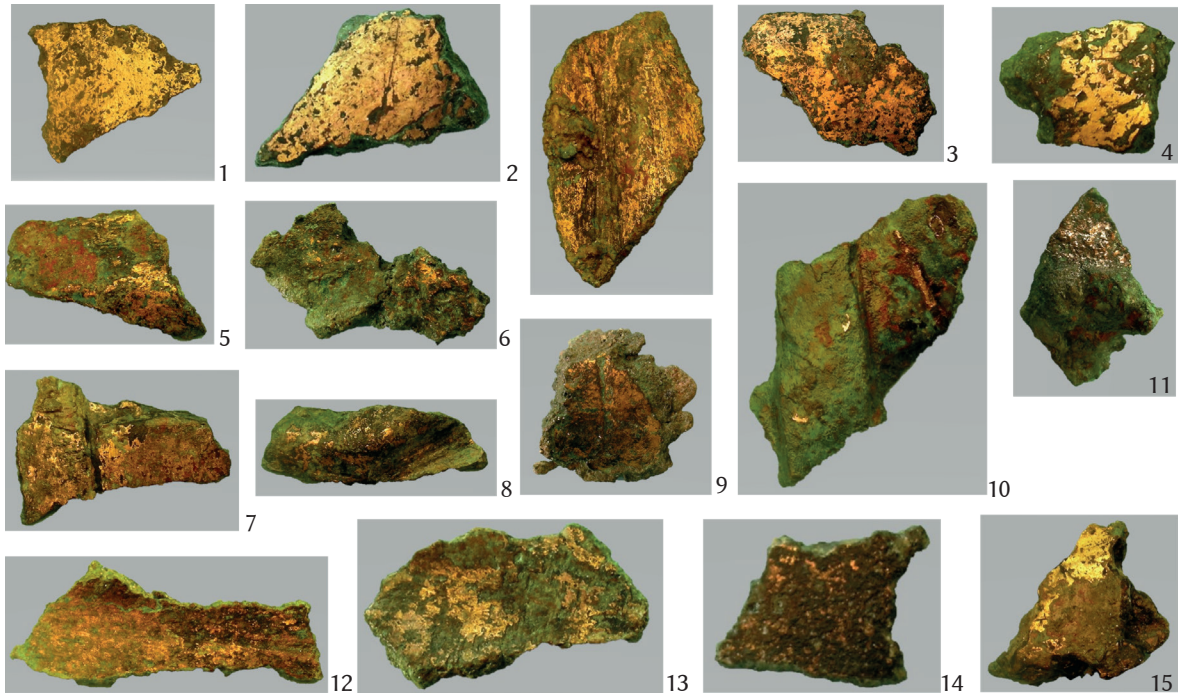


Fig. 14. Bronze gilded fragments of human and equestrian statues from Potentia.

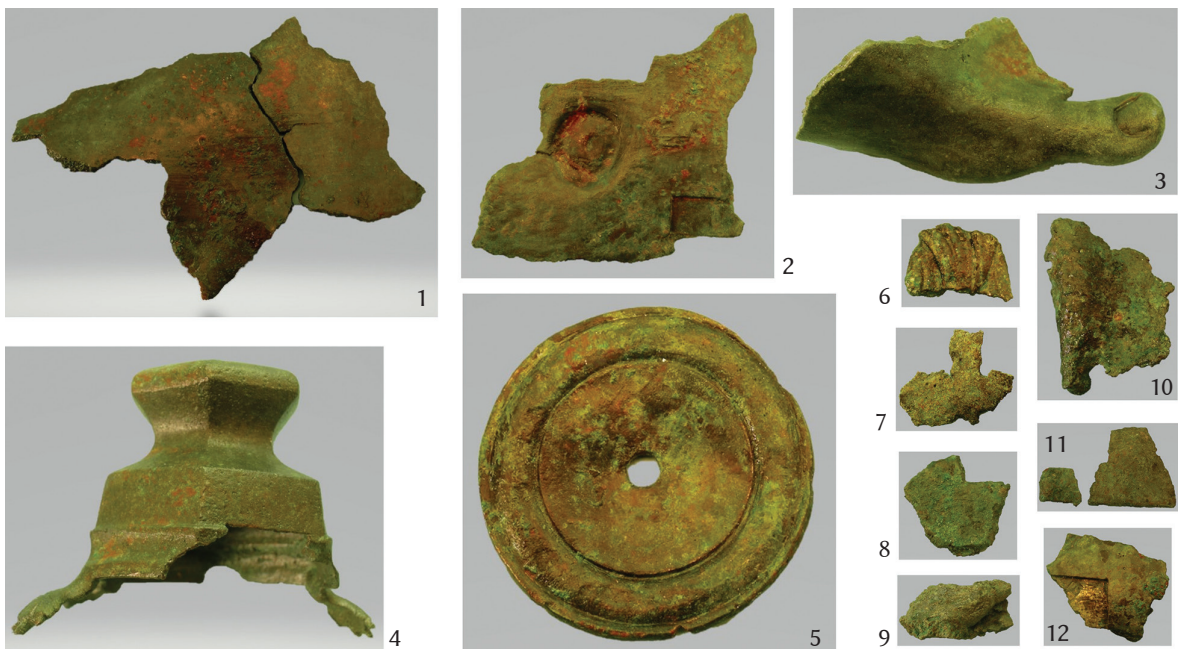


Fig. 15. Bronze fragments of statues and little bases of statuettes from Potentia.

objects could not have been pertinent to the furnishings of a domus, such as the rein holders, which probably date back to the third – fourth century AD<sup>30</sup> (Fig. 10). The certain dating of the two inscriptions of the *tabulae patronatus* to 256 AD gives us a reliable *terminus post quem*, further specified by the later dating of the rein holders, after which all these bronzes were transferred to the room of this domus which by now had been profoundly transformed and which included a foundry. It seems plausible that these finds had been brought into this workshop at a later time to be recast, probably

30 FRAPICCINI 2015, 283–289.



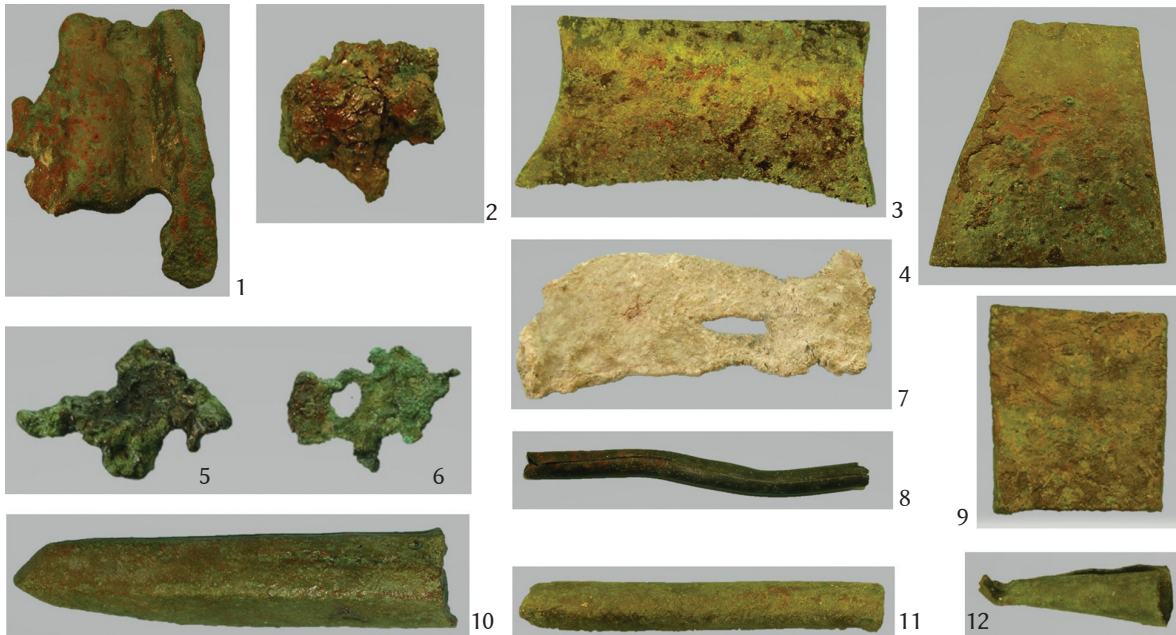


Fig. 16. Casting scraps, three plates for repairs, a lead fragment, little tools from Potentia.



Fig. 17. 1 – fragment of an honorary bronze inscription (beginning of 1st century AD), 2–3 – bronze statuette of Mars (end of 2nd – beginning of 3rd century AD) from Potentia.

together with the Idolino and the statuette of Eros-Hypnos discovered nearby, under the same Barignani Palace. Therefore, the ancient *domus*, probably built in the late Republican or early Imperial Period and inhabited for a long time, was neither necessarily related to the *Aufidii* (the *gens* to which the *tabula patronatus* was dedicated) nor to the offices of the *collegium fabrum* (which offered the *tabula*) but belonged to an unknown owner. According to the chronology of the rein holders, the transformation of the house probably began in the fifth century, when the city became impoverished and shrank due to Alaric's raids. The position of the *domus*, adjacent to the city walls, fits well with the urban transformations of the time, when destruction and consequent abandonment freed the areas near the walls, which were then occupied by workshops and furnaces.<sup>31</sup> The activities of the foundry, instead, could date back to the end of the fifth – beginning of the sixth century, connected to that period of reconstruction and rebirth of building activities before the Gothic–Byzantine war, also

31 DALL'AGLIO 2004a, 72–73.

recorded in nearby Romagna.<sup>32</sup> This workshop, the so-called ‘inscription chamber’, also showed signs of fire and ‘pieces of coal’, which indicated the sudden destruction of the building, definitively abandoned following this event. The traces of this destruction and the fire would date to the Gothic–Byzantine War, when the Roman urban structure of *Pisaurum* was overturned by the raid of Vitiges in 541 AD (Procopio, *Bell. Goth.*, III, 11)<sup>33</sup> or, may be, later.

A similar context occurs in *Potentia* (Porto Recanati, MC), a Roman colony founded in 184 BC, at the mouth of the *Flosis* River, on the Adriatic coast (Fig. 11). The Superintendency’s Archaeological research at the site began in the 1960s–70s, with the discovery of a large necropolis, with burials dating from the second century BC to the fifth century AD, and a portion of an *insula*.<sup>34</sup> Subsequent archaeological excavations were conducted in the 1980s and in 2000, bringing to light religious, public and private buildings in the area near the forum, *tabernae*, a section of the wall including the west gate (discovered by Ghent University) and another part of the northern necropolis. These discoveries and Ghent University’s numerous surveys have made it possible to identify three phases in the city’s development.<sup>35</sup> The first phase, corresponding to the foundation of the colony, included the construction of a regular, rectangular urban plan of almost 18 hectares, parallel with the coast. Ten years after the foundation, the city became monumental, with the erection of the walls and at least three gates, the creation of the forum with the *tabernae* and the erection of the temple to Jupiter mentioned by Livy (second phase). Around the middle of the first century BC, the terrible earthquake mentioned by Cicero caused great destruction, followed by the immediate reconstruction of the city, which constituted its third phase. Surveys have documented the existence of a theatre and the presence of funerary monuments along the axis roads that exited the gates to the north, west and south of the city.

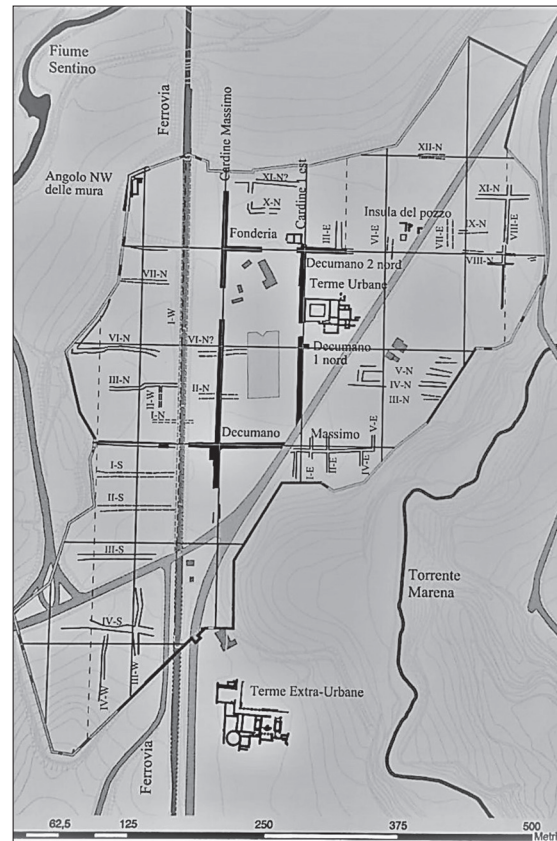


Fig. 18. Plan of Sentinum with the foundry (by MEDRI 2008a).



Fig. 19. The foundry of Sentinum.

32 SACCO – CESARETTI 2021, 293.

33 FRAPICINI 2015; MENNELLA – FRAPICINI 2017, 380–382.

34 MERCANDO 1974, 142–430; PERCOSSI SERENELLI 2001; PACI – PERCOSSI SERENELLI 2005, 190–200; VERMEULEN 2017; VERMEULEN et al. 2017, 99–111.

35 PERCOSSI 2012, 269–289.





Fig. 20. Tools from the foundry of Sentinum.



Fig. 21. Bronze fragments from the foundry of Sentinum.

Handicraft activities arose outside the city walls, as documented by the furnaces for the production of amphorae, identified to the north and south of the town. The harbour was located south of the city, at the mouth of the *Flosis* River (now the Potenza River, which has since changed its course and flows north<sup>36</sup>). The territory outside the walls was centuriated, destined for flourishing agricultural activities.<sup>37</sup> Starting in the third century, the city seems to have been confined within its walls, a situation that reveals a period of crisis and decadence that continues during the fourth and first half of the fifth century, although we know that, from the beginning of the fifth century, *Potentia* was a bishop's seat.<sup>38</sup> It has been hypothesized that the city underwent a contraction from the second half of the fifth century, with its occupied area restricted to the central part, which included the area of the forum, the northern area and the central southern part. This contraction is accentuated again during the first half of the sixth century, while depopulation probably began during the sixth century, and in the late sixth – early seventh century *Potentia* was abandoned.<sup>39</sup>

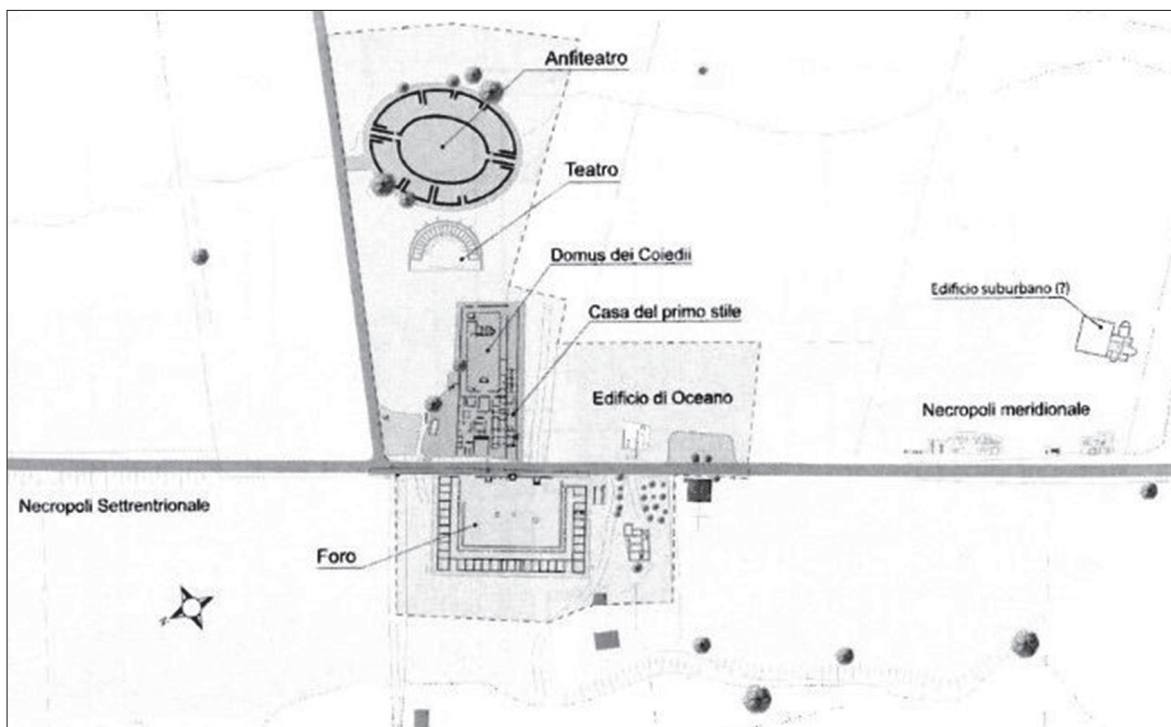


Fig. 22. Plan of Suasa (by [GIORGI – LEPORE 2010](#)).

Excavations in 1989 involved the area adjacent to the portico of the temple east of the forum. The complex stratigraphy brought to light various structures, among which were Republican Age *tabernae* and the nearby *macellum*, referable to the Augustan Age but probably built over an older market<sup>40</sup> (Fig. 12). This area was significantly modified by interventions of the late fourth century when the temple portico was enclosed with an internal wall, and the building to the east of the portico was transformed, as was probably the area of the *macellum*, where the later layer has yielded

36 [ALFIERI – ORTOLANI 1947](#).

37 [PERCOSSI SERENELLI 2001](#); [PACI – PERCOSSI SERENELLI 2005](#); [VERMEULEN et al. 2006](#), 77–82; [PERCOSSI 2007](#), 547–627.

38 [ALFIERI 1977](#), 93; [VERREYKE – VERMEULEN 2009](#), 83; [CARBONI – VERMEULEN 2019a](#), 351–358; [CARBONI – VERMEULEN 2019b](#); [MARANO 2019](#), 78–79.

39 [VERMEULEN 2012](#), 77–95.

40 [PERCOSSI SERENELLI 2001](#), 78–79, Fig. 17, 84–85; [FRAPICCINI 2009](#), 244; [VERMEULEN 2017](#), 104, 11, Fig. 78.



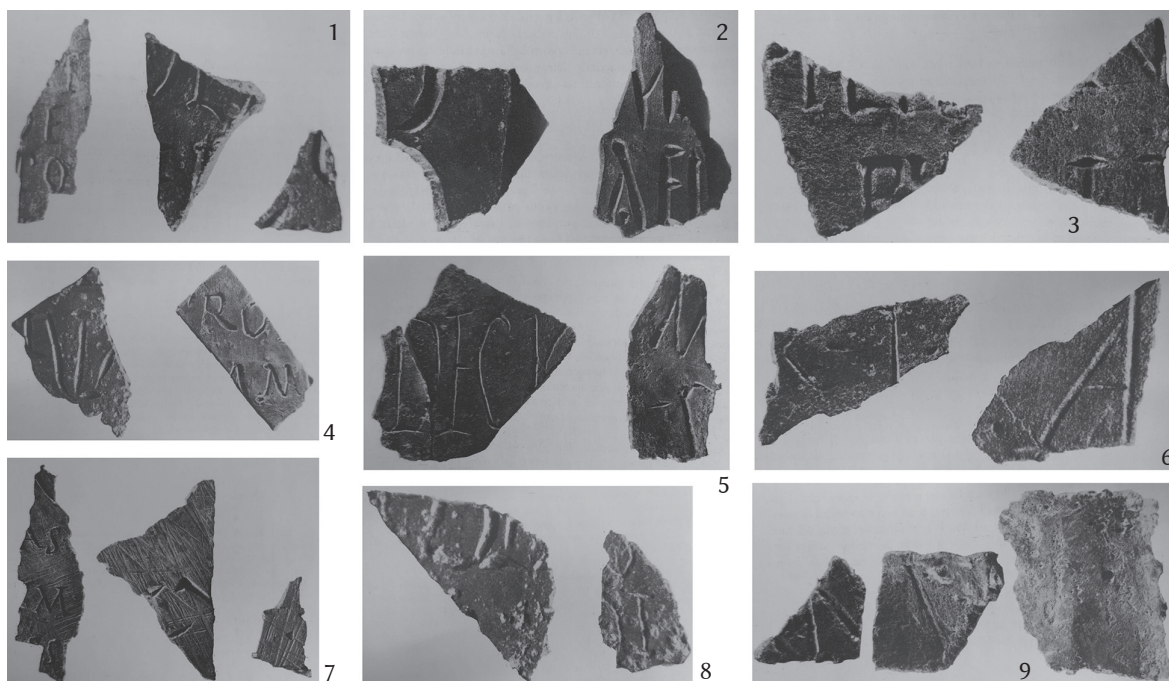


Fig. 23. Fragments of bronze inscriptions from Suasa, *domus* of the Coiedii, 1st–3rd century AD (by ANTOLINI – PACI 2000).

a hoard of numerous bronze fragments<sup>41</sup> (Fig. 13). They were found partly inside a room and partly in a space in front of the *macellum*, above an *opus spicatum* floor covered by a portico, of which the bases of two rows of columns survive. This group included 17 small fragments of gilded bronze human and equestrian statues (Fig. 14) and ten fragments of bronze statues, among which are the finger of a monumental hand, part of an abdomen, fragments of hair, and part of the foot of a statuette (Fig. 15). Furthermore, there were many other small fragments of unidentifiable objects and furniture, a base of a statuette, the left arm of a statuette and an applique with a statuette of Mars, attributable to the end of the second and the beginning of the third century AD.<sup>42</sup> The presence of tools, three quadrangular plates for repairs, together with some casting scraps and lead fragments seems to confirm that the provenance of this group of finds was a bronze casting workshop<sup>43</sup> (Fig. 16). The fragment of an honorary bronze inscription, dated to the beginning of the first century AD,<sup>44</sup> and the later applique with the representation of Mars (Fig. 17) allow us to suppose that these objects, of various kinds and of different periods, had been collected in the workshop to be recast, in a period no earlier than the end of the third century, according with the chronology of the Mars statuette and the changes in the area. Starting from this period *Potentia* underwent great building transformations, also due to the Tetrarchy's agricultural reorganization, which increased, in particular, in the second half of the fourth century.<sup>45</sup> The foundry could therefore date to around the fourth century, when it probably performed small-scale fusion for restorations or for the creation of tools or for ingots, as indicated by the very small dimension of the fragments ready to be remelted.

The third finding of bronze artifacts certainly coming from a foundry was brought to light in *Sentinum* (Sassoferrato, AN)<sup>46</sup> (Fig. 18). The town, dating back to the Republican Age, became a *municipium* locat-

41 FRAPICCINI 2009.

42 FRAPICCINI 2009, 273–275.

43 FRAPICCINI 2009, 300–301.

44 PERCOSSI SERENELLI 2001, 89–91, Fig. 19 (G. Paci).

45 PERCOSSI – VERREYKE 2006, 273–274.

46 FABBRINI 1961, 315–323; DE MARINIS 2003, 156–157; FRAPICCINI 2017, 147, Fig. 17.7–8.



ed in a basin at the north end of the camerte synclinal valley,<sup>47</sup> where two routes started that reached *Sena Gallica* (Senigallia, AN) on the coast, along the valleys of the Misa and Cesano rivers. Another route reached the mountain crossings to the west, while another linked *Sentinum* to *Attidium* (Attiggio, AN), *Matilica* (Matelica, MC) and *Camerinum* (Camerino, MC), so that the city stood at the centre of a road network that connected the coast with the hinterland and the cities along the camerte syncline valley.<sup>48</sup> *Sentinum* stood on a river terrace at an altitude of 315 m between the Sentino River and the Marena torrent. The archaeological excavations carried out in the twentieth century and at the beginning of the 2000s brought to light part of the walls, the road system, including the *cardo maximus* and the *decumanus maximus*, and the city gates. The urban plan, about 15 hectares wide, was made up of regular blocks, at the centre of which stood the forum, delimited to the west and south by the main roads. Like the city walls, the city plan has been dated between the end of the second and first century BC. The most recent excavations have brought to light the public buildings of the forum, with a fountain, probably a *macellum*, porticoes and a tetrastyle temple from the Augustan Age. On the opposite side of the forum, towards the East, the city baths stood, while another vast bath complex (or *xenodochion*) had been located outside the city walls since the Neronian–Flavian age.<sup>49</sup>

The foundry was identified in 1954, during the discovery of a block in the north-east area of the ancient town, in front of the residential area of the ‘Insula del pozzo’ and near the urban thermal baths, in a room of a building located along the *cardo* 1 east: the block therefore has been identified as a manufacturing area<sup>50</sup> (Fig. 19). Here numerous bronze tools came to light, such as small spatulas, 109 scrapers, 66 pieces of slag, 102 rods and portions of sprues, 4 dowels, 4 rods for dowels, 9 portions of wire, and 4 pairs of pliers (Fig. 20). Inside the foundry, finds included many fragments of bronze objects, plaques, waste pieces of cut bronze foil, little fragments of a gilded-bronze horse’s head, a finger of a statue, fragments of garments from statues, and unfinished objects (Fig. 21), along with a counter made of tiles. On the counter rested a stone slab with a circular hole, under which were iron and bronze slag and the remains of combustion. Later, in the excavations of 1960, a statuette of Minerva, dating back to the second century AD, was found in an adjacent room,<sup>51</sup> together with a polygonal stone base. Below the floor of this room were wall structures from a previous building, and new excavations in 1997–1998, directed by Giuliano de Marinis and not yet published, revealed the complex stratigraphy of the site, which ranged from the late Republican Age to Late Antiquity: during this long period the area would have supposedly always been occupied by the atelier<sup>52</sup> However, this hypothesis would place the bronze casting activities right



Fig. 24. Sporadic bronze and gilded bronze fragments of statues and statuettes Forum Sempronii (by LUNI 2001).

47 About *Sentinum* in general see: FABBRINI 1961; MEDRI 2008a; MEDRI 2008b; LO BLUNDO 2017.

48 DALL’AGLIO 1997; LUNI – UTTOVEGGIO 2002; DALL’AGLIO 2004b.

49 DE MARINIS et al. 2008, 205–211; MEDRI 2008b, 199–217; LO BLUNDO 2017, 116–117.

50 FABBRINI 1961; FRAPICCINI 2017, 147; LO BLUNDO 2017, 117.

51 FRAPICCINI 1998, 36–41, Figs 2–3.

52 For preliminary news see: DE MARINIS 1998, 78.



Fig. 25. Plan of Urbs Salvia (by FABRINI 2015).

next to a residential neighbourhood with sumptuous domus, decorated with precious and refined mosaics,<sup>53</sup> as well as a short distance from the urban baths, the forum area and the sacred area.<sup>54</sup> On the other hand, dating to as early as the end of the fourth and fifth centuries are evident traces of the de-functionalization of the sacred area, reoccupied but employed for a different use. The first traces of plunder, both in the temple's alae and in the area outside the temple, also date to the same period. The building was only reoccupied in the northern area, an indication of the slow decline of the city, which was abandoned progressively and not immediately following a violent destruction. Even the mosaics of the urban baths show rough restorations in Late Antiquity, while the portico building was reused as a dwelling in the fifth century, and adjustments and patches are also evident in the paving of the two major road axes. In addition to the progressive occupation of public and sacred spaces by modest private homes, the simultaneous presence in *Sentinum* of Christian testi-

53 CATANI 1997, 23–73; MANCINI 2008, 101–112.

54 MEDRI 2008a, 210, Fig. 3.1.10; LO BLUNDO 2017.





Fig. 26. Sporadic bronze and gilded bronze fragments from Urbs Salvia.

monies<sup>55</sup> makes it plausible to hypothesize a transformation of the urban plan, perhaps conditioned by the presence of new religious buildings in an area far from the ancient *forum*. These reflections lead us to think it probable that the foundry district too had been transformed in this period from a residential area to a production area, and that the foundry was a Late Antique atelier located in a previous building, probably a *domus*. If, on the other hand, this building had been used since the Republican Age for small bronze castings in the heart of the town, it seems plausible to assume that these tools and bronze fragments found in the workshop refer to the last phase of the foundry's life, before its abandonment. Also, the small bronze statuette found inside the next room came, with certainty, from a more ancient *lararium* and was evidently awaiting recasting. The decline of *Sentinum*, which began in the fifth century, continued into the sixth century when the laws of Theodoric legitimized the destruction of pagan temples and public buildings, which became mines of material for reuse. *Sentinum* followed the fate of other cities both in the Byzantine pentapolis in the north of the Marche and in the Lombard Duchy of Spoleto in the south, where the less defended urban centres were abandoned, and rural villages and fortified centres developed.

### Traces of further Late Ancient foundries

These discoveries of foundries, attributable with certainty to Late Antiquity, are cause for reflection. In the first place, the foundries were located inside the cities, in neighbourhoods not originally intended for craft activities: residential areas (such as in *Pisaurum* and *Sentinum*) or public areas with *tabernae* and an ancient *macellum* (such as in *Potentia*). This implies that these activities caused a transformation of the urban centres starting from the end of the fourth century, in conjunction with

55 LO BLUNDO 2017, 142–143.

the phenomenon of Christianization and the construction of the first churches. These significantly modified the urban plan, becoming real catalysts, destined to outclass the centrality of the ancient pagan forum. Furthermore, the bronze fragments found in these foundries all have the same characteristics: the large statues are reduced to very small, broken fragments with jagged edges, while the small objects are almost intact.<sup>56</sup> This probably indicates that in these workshops the metal was intended to be re-melted to make small objects, probably tools for agricultural or handicraft work, household tools or weapons, or ingots. On the other hand, these workshops located inside the town could hardly have the characteristics of foundries for large bronzes, which would have required more space<sup>57</sup>. Based on these observations, perhaps we can assume that some sporadic finds of similar bronze fragments, which have emerged from survey research, are probably reconcilable with this kind of activity, even if the casting workshop itself has not been preserved.

Among the ancient towns of our territory where numerous bronze fragments have been found quite similar to those described so far, there is *Suasa*<sup>58</sup> (Castelleone di Suasa, AN) (Fig. 22). The town, which flourished in the first and second century AD, began to decline in the third century when many private buildings were transformed. In the fourth century, significant interventions transformed and de-functionalised the private and public buildings and transformed the *forum*. These phenomena of decay and the transformative interventions increased during the fifth century, when even in the large and sumptuous *domus* of the *Coiedii*, the residential part and the garden were occupied by a necropolis.<sup>59</sup> The grouping of fragments of inscribed bronze inscriptions (Fig. 23), found in the layer of collapse and abandonment about 20 meters from the perimeter wall of the *domus* of the *Coiedii*, probably dates to this period.<sup>60</sup> The fragments had been intentionally broken in ancient times and reduced to pieces of a few centimetres, in one case with a clean cut, as if by shears, the others broken by bending, probably using pliers. The 19 fragments, two of which are anepigraphic, belonged to inscriptions datable between the first and third century AD, found together with a coin of Maximian and a *folles* of the sons of Constantine, which offer the *terminus post quem* of the finds. It seems very probable that these fragments and the coins constitute a group of pieces of bronze ready to be melted down in a workshop that could have been located on site. The same fate probably also awaited the large fragment of a horse's head and a sword in gilded bronze, what remained of an equestrian statue found in 1884 outside the town.<sup>61</sup> *Suasa* was abandoned during the sixth century, probably due to the disastrous results of the Goth-Byzantine War followed by the clashes between the Byzantines and the Langobards.

Many other gilded bronze fragments of large statues or tools were also found in other ancient towns, unfortunately without a certain place of discovery, a fact that prevents us from establishing where the workshop for their remelting was located. A very detailed list of these towns is reported by Mario Luni<sup>62</sup> and includes *Forum Sempronii* (Fossombrone, PU), where many bronze fragments and bronze statuettes come from, as well as a lead ingot and a crucible (Fig. 24). Another crucible with traces of metal casting was also found in *Tifernum Mataurense* (Sant'Angelo in Vado, PU),<sup>63</sup> which became gradually more impoverished starting in the second century AD and declined progressively up to the sixth century.<sup>64</sup> *Urbs Salvia* (Urbisaglia, MC) joins these contexts. From this vast

56 See analogous contexts from Brescia (ROSSI 2002), Industria (MERCANDO – ZANDA 1998), Casteggio (INVERNIZZI 2012) and Rome, from the Basica Emilia (RICCI forthcoming).

57 FORMIGLI 1995; ZIMMER 2002, 41–47.

58 About the research at *Suasa* see GIORGI – LEPORÉ 2010; GAMBERINI – MORSIANI 2019.

59 DESTRO 2010, 93–98.

60 ANTOLINI – PACI 2000, 53–72.

61 These finds are preserved today in the Walters Art Gallery in Baltimore. On these fragments and other pieces of large bronze statues from *Suasa* see LUNI 2001, 35–37.

62 LUNI 2001; LUNI – GORI 2001.

63 LUNI 2001, 51–52; CATANI – MONACCHI 2004; CATANI – MONACCHI 2010.

64 STORTONI 2021, 121–137.





Fig. 27. Bronze gilded fragments of the group from Cartoceto di Pergola.

archaeological park, which constitutes the most important complex in the region<sup>65</sup> (Fig. 25), come numerous fragments of statues, statuettes and bronze objects, unfortunately all sporadic. In addition to the many bronze objects, particularly similar to the fragments referable to the Late Antique foundries, are the small pieces of large gilded bronze statues and portions of appliques<sup>66</sup> (Fig. 26).

65 On the archaeological research and the urban plan of *Urbs Salvia* see: FABRINI 2013, 177–268; FABRINI 2015, 23–25; PERNA 2005.

66 FABRINI – FRAPICINI 2002, 75–98; FABRINI et al. 2007, 17–66.



Therefore, it would seem plausible to assume that the small fragments were the result of raids on furnishings, statuettes from *lararia*, equestrian or large statues of illustrious personalities or emperors exhibited in public places or dispossessed buildings, but not necessarily coming from the same town where the workshop was located. The tragic events of this disastrous period of transition between Late Antiquity and the High Middle Ages and the great poverty following the invasions caused such a demand for metals that everything was conveyed to workshops to be re-melted. Bronze had become precious, and these fragments are the sign of the limited availability of metal during this period of profound economic crisis, especially between the fifth and sixth centuries.

Finally, even the well-known group of bronzes from Cartoceto di Pergola was in small fragments when it was recovered, before being partially reassembled, albeit with large *lacunae* (Fig. 27). Recently, a new study by Oscar Mei (forthcoming) has reconstructed the daring history of the statues' burial, probably in the second half of the 19th century.

However, the question of the statues' provenance and where they were stolen from remains open. It seems conceivable that, at least from a modern perspective, they came from an ancient deposit of a nearby Roman city (*Sentinum*, *Forum Sempronii*, or another site?), as already presumed, and were waiting to be melted down in a Late Antique workshop, that was perhaps destroyed and abandoned following the disastrous events of the time, or they had been hidden in a safe place awaiting retrieval. The very small dimension into which even the large equestrian statues were reduced seems due to this purpose.<sup>67</sup>

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67 Review of English by Nicole Cuddeback.

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