Preliminary Remarks on the Economic Development of the Villa Metro Anagnina

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The so-called Villa Metro Anagnina is a recently discovered villa rustica in the south-eastern Suburbium of Rome. The excavation project was established in 2010 and so far, has clarified some basic questions concerning the construction sequences of the building complex.[1] The following paper contains some preliminary remarks regarding the economic development of the villa from the middle Republican to the early Imperial era.

According to the current state of research, the architectural history of the Villa Metro Anagnina can be divided into three main phases. The villa was founded in the 3rd century BC as a courtyard building of ashlar masonry (fig. 1) (Phase 1A).[2] During the 2nd century BC a lateral building was added to the west and the main farmhouse was enlarged (Phase 1B). The use of the opus caementicium technique with reticulate wall-facing completely transformed the villa-complex during the second building phase

Fig. 1: Villa Metro Anagnina, plan.

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(1st century BC) (Phase 2).[3] In this period, the villa served as a typical high-level productive estate with an atrium, a garden terrace, and some smaller courtyards. Following a catastrophic destruction, the villa was rebuilt in the second half of the 1st century AD (Phase 3) and transformed several times during the Imperial era. It was ultimately abandoned in the early 3rd century AD.[4] The villa's economic development cannot be reconstructed in all details at present, however, some preliminary data is available. While agricultural activities characterized the estate in the 3rd century BC, its successor in the 1st century BC changed its economic function by implementing a productive facility.

Middle-Republican Farm (Phase 1)

During the middle Republican period (Phase 1) the Villa Metro Anagnina site featured two separate buildings, the main building (ca. 860 m²) to the east, and a lateral building to the west (ca. 660 m²) (fig. 1). Although the structures of this construction phase are for the most part preserved to the foundation-level and were only partially excavated, it is possible to establish a sound picture of its layout. The combination of the architectural and the archaeological record shows that large-scale rural production was the purpose of the building complex.

Main Building

In Phase 1, four large, rectangular rooms, aligned approximately along a north-south axis formed the northern part of the main building (Rooms V–VII.XI–XIII, fig. 1). In their original state, the three eastern rooms (V–VII) were of uniform dimensions of 5.55 m by 11.40 m, while the western room (XI/XII/XIII) measured just 5.10 m by 11.40 m. Due to their uniformity and layout, the three units to the east can be interpreted as covered storerooms for agricultural production. Additional results from the excavation support this interpretation: Rooms XII and VII contained the remnants of reused dolia belonging to Phase 1, which were abandoned at the beginning or during Phase 2 and filled with debris. The dolium in room XII is almost entirely preserved (US 261), while only the bottom part of the vessel in the north-west corner of Room VII could be retrieved (US 259). Although no further remains or traces of dolia were found in situ, numerous fragments appeared in the backfilling layers of the later constructions, suggesting large storage facilities during Phase 1.

Lateral Building

The layout of the lateral building cannot yet be reconstructed precisely. However, it may have featured a courtyard to the south and a sequence of differently sized rooms on its northern side. The eastern part contained the remains of a screed floor (room LIV), which covered an embedded dolium (US 1016) (fig. 2). In addition, excavation discovered the negative imprint of a further vessel under the floor of the later room LVI (US 885). The scattered location of these dolia makes it likely that large storage areas occupied the north-eastern part of the lateral building. Based on the preserved structures, a second area of such storage rooms can be assumed in the northwest corner of the building (Room LVIII–LIX). Therefore, despite the limited amount of information, both the main and the lateral building can be highlighted as extensive agricultural facilities.

Products

With respect to the goods stored and processed in these facilities, only hypotheses can be proposed, since the structural layout of the rooms themselves does not allow for definite conclusions. Often falsely referred to as granaries, these rectangular warehouses represent a multifunctional design that could be used to store a wide variety of goods.[5] The remains of the dolia may point to a purpose in the context of the production of wine or olive oil.[6] Unfortunately, there are no finds or structural remains at present that point to the existence of pressing installations in the villa.[7] However, dolia were also used for the storage of other agricultural products, such as legumes.[8] Therefore, the storage facilities most likely were not used for one single product, but for commodities

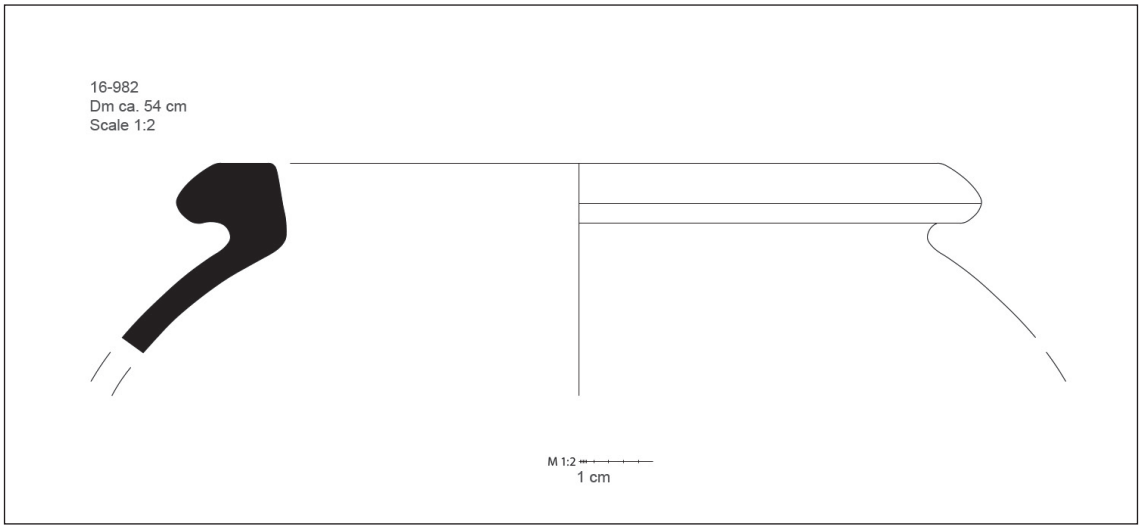

Fig. 2: Villa Metro Anagnina, Room LIV, *dolium* 16-982.

of various agricultural activities.[9] This assumption is supported by the large number of economically used rooms within the complex. Based on the current state of research, Phase 1 of the villa can be interpreted as an agricultural business, aimed at achieving maximum profit through the cultivation and processing of cash crops.[10]

The Period 1 Complex and the Productive Farms and Villas of the 3rd and 2nd Century BCE

Due to its date in the 3rd century BC and the large-scale preservation, the oldest remains of the Villa Metro Anagnina site occupy a special position in the archaeological record of the Roman hinterland and Latium. Among the farms and villas of the corresponding time horizon there are currently no direct comparisons that show similar extensive or systematically designed economic areas. The second phase of the Auditorium-villa (5th to 4th century BC), like the early Villa Metro Anagnina, consisted of two separate buildings.[11] The main building in the north was arranged around a central courtyard which contained a press facility. However, there are no areas specifically reserved and systematically designed for agricultural production. The same applies to several small courtyard farms of the 4th and 3rd centuries BC unearthed in Lazio and the surroundings of Rome (e.g. the Villa of Via Gabina 11).[12] It is only from the 2nd century BC onward that more and more Roman villas use specialized types of rooms for economic purposes.[13]

Due to the lack of excavated villa sites from the middle Republic, it is currently difficult to reconstruct the corresponding process of architectural adaptation. It surely led to different solutions in the various Italian landscapes, due to the specific geographic or climatic conditions in each region.[14] In Latium the productive facilities were predominantly arranged as self-contained areas in the northern parts of the rural estates (pars rustica) (fig. 3).[15] Extensive production facilities in the form of large press rooms and open storage yards also equipped the small villas and farms in the area around the Bay of Naples. Yet, in contrast to the villas of Latium, these facilities did not form a separate unit, but occupied the central position within the buildings (fig. 4).[16] These regionally developed building concepts existed parallel to each other during the late Republican and early Imperial times. The layout of the middle Republican Villa Metro Anagnina is one of the earliest examples of the specialized and self-contained economic area which became an integral part of the productive villas in Latium during the following two centuries. Therefore, the villa can be seen as part of an early architectural experimental stage that sought solutions for the needs of intensive agricultural activities, which were developed subsequently to the colonization of the Apennine Peninsula and the first two Punic Wars.[17]

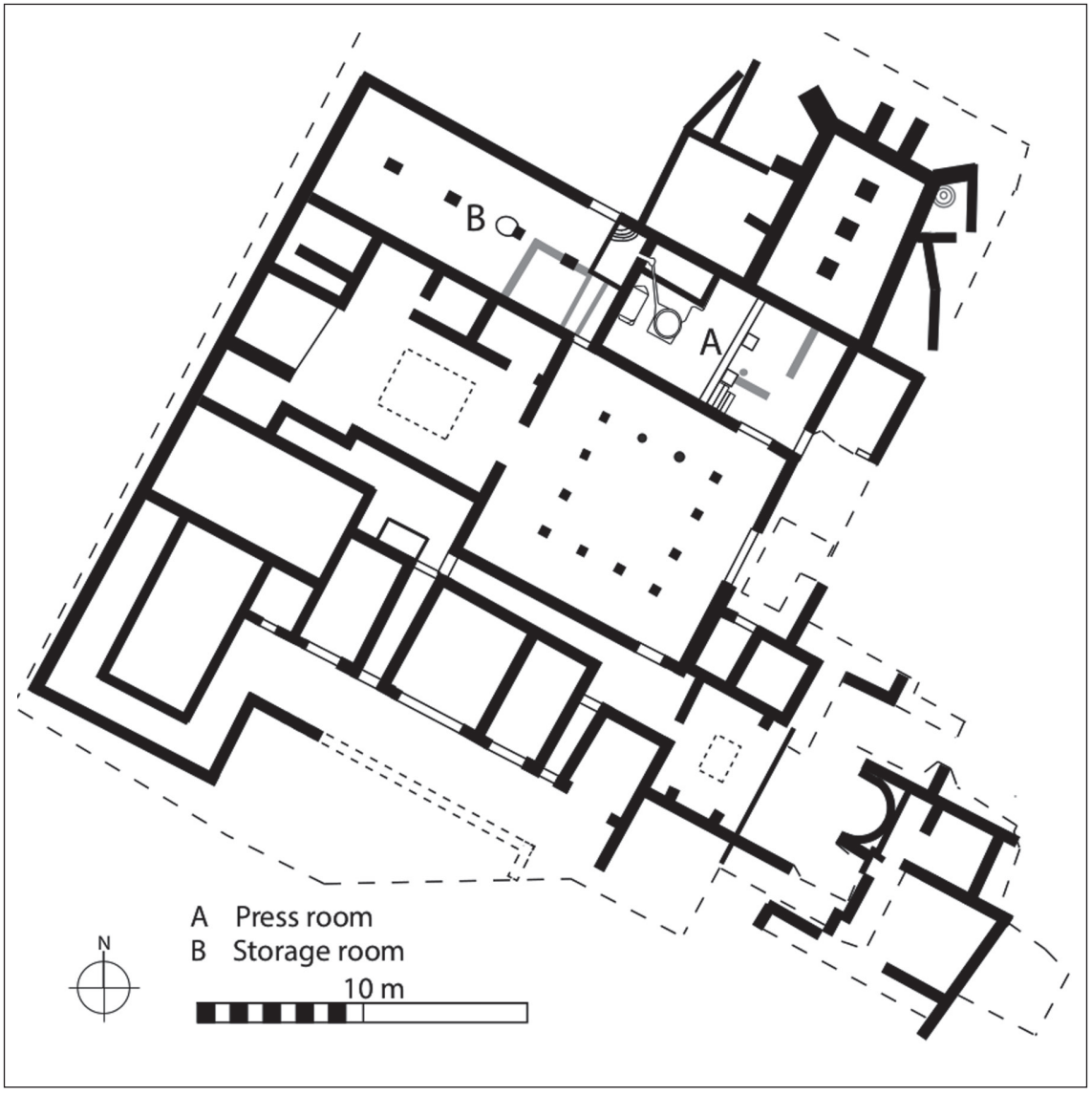

Fig. 3: Villa di Castel di Guido, plan.

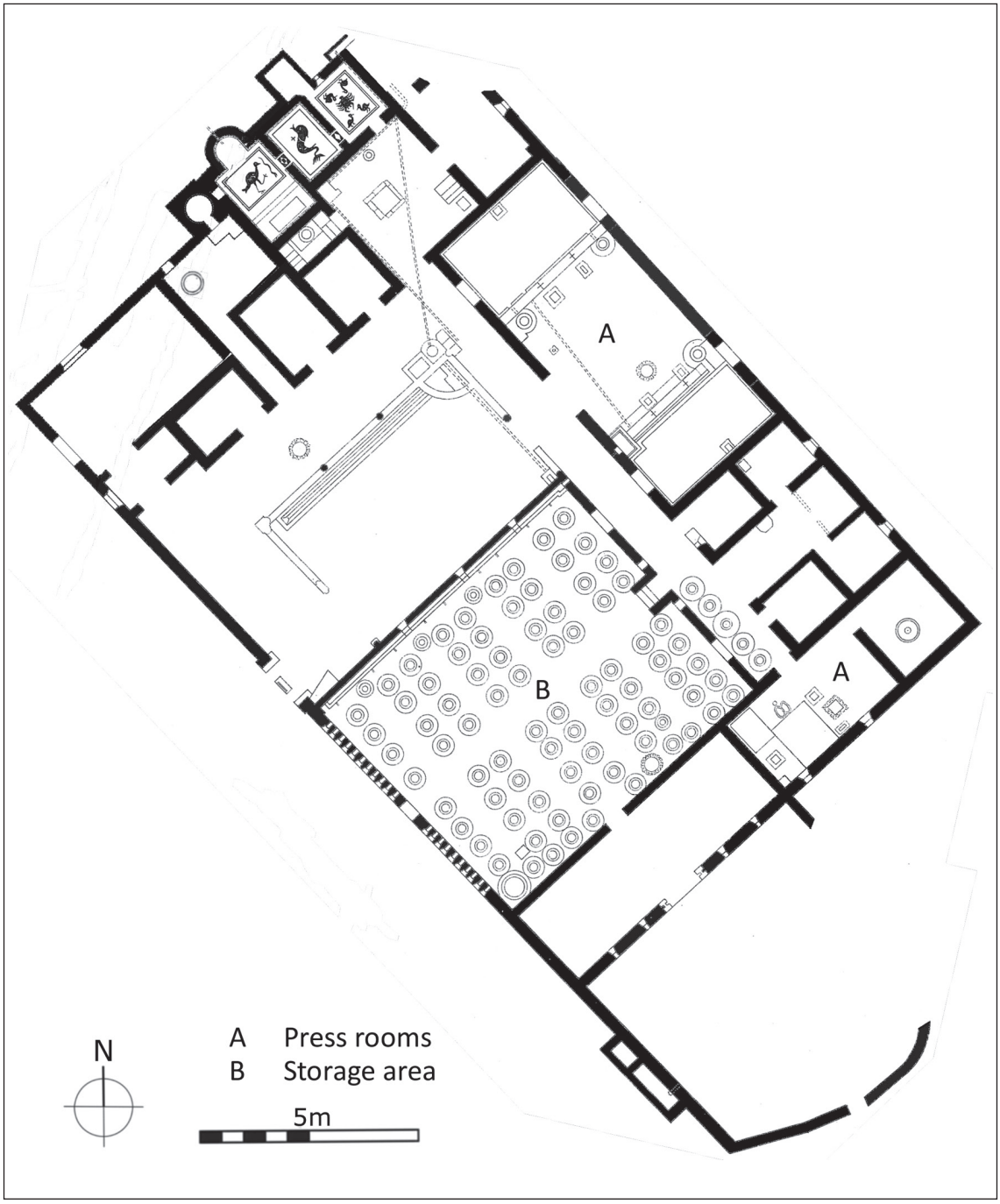

Fig. 4: Villa di Pisanella.

Late-Republican Workshop (Phase 2)

The transition from the first to the second phase brought a significant change in the architectural design of the villa (fig. 1). The new complex of Phase 2 followed the orientation of the Phase 1 main building, and the new building seems to have reused the earlier foundations in its construction. However, the lateral building was abandoned completely, and new structures occupied its position. The resulting complex incorporated the customary parts of a typical villa rustica of its time by combining an atrium (VIII) and a garden-peristyle (CII) with several inner courtyards (XXXIII + XXXIV).[18] Although the new villa covered an area of approximately 6500 m² and included luxurious compartments, it remained a large-scale productive facility. Its function seems to have shifted from an agricultural facility towards a water-consuming manufacturing workshop, although, it must be stated, that due to its poor preservation, the exact economic functionality remains difficult to determine.

The catastrophic event that destroyed the Late Republican Villa (Phase 2), was responsible for the extraction of the workshop equipment, leaving behind only negative impressions of the removed elements. Nevertheless, the archaeological record shows

Fig. 5: Villa Metro Anagnina, installations, Phase 2.

Fig. 6: Villa Metro Anagnina, Room XXI, impression of tub US 1274.

clearly that several rooms in the central part of the building complex contained groups of basins and recessed vessels of different dimensions (fig. 5). Although the containers themselves are poorly preserved, it seems probable that they were connected to a fulling facility.[19] The arrangement of the installations from room XXI and LII show a close resemblance with *fullonicae* from Pompeii and Ostia.[20] Along the northern and eastern walls in room XXI different types of vessels were detectable (fig. 6). Room LII featured a characteristic row of concrete basins with surface areas ranging from ca. 2.5 m² up to ca. 6.7 m² (fig. 5).[21] Although the exact nature of the of water-consuming activity remains unclear, from the 1st century BC onwards the villa was no longer used as purely agricultural facility.

Another important observation regarding the transformation of the water management system supports this line of argument. The middle Republican construction phases collected and stored ground- and rainwater in an underground cuniculus-system (fig. 1); the newly erected building complex witnessed the installation of a large above-ground reservoir, which supplied the villa with water from the south.[22] The installation of this new reservoir likely took advantage of the Roman aqueducts which passed the villa at a short distance to the south and the east.[23] As a result, the villa now had sufficient water resources available not only for its usual needs but also to operate water-demanding workshop facilities.

Amphorae – Markers for a Changing Functionality?

The amphora finds from the excavation underline the developments observed in the architectural remains. They can shed light onto the economic development of the villa from a more macroscopic point of view. It is possible to divide the amphorae found at the Villa Metro Anagnina into three groups based on their context, chronology, and typology: a Republican, an early Imperial, and an Imperial group. The first group comprises several Dressel 1 A, a larger number of Dressel 1 B, including a specimen with a titulus pictus in red, *post cocturam* applied script, and some graeco-italic amphorae, mostly from the lateral building. In this phase, the spectrum and characteristics of the amphorae mirror the situation at other contemporary productive villas of central Italy. The second group largely comprises a great number of Dressel 2–4, but also contains some Aegean and probably Neo-Punic types, alongside a Haltern 70. An Oberaden 74 deserves special attention due to its stamp PHILODAMUS (fig. 7); this would be the first specimen of this Augustan wine amphora produced in Tarraconensis found on Italian soil.[24] The third group comprises Dressel 2–4, Dressel 7–11, but also Pélichet 47/Niederbieber 76, and some Gallic types up to Cretan Dressel 43 (fig. 8), one of which had an illegible titulus pictus in black script.[25]

In the general development trends, paralleling other villa sites in western Central Italy, (such as Settefinestre), both the amphora spectrum and chronology demonstrate the dominant position of Italian products during the Republican era: perhaps the am-

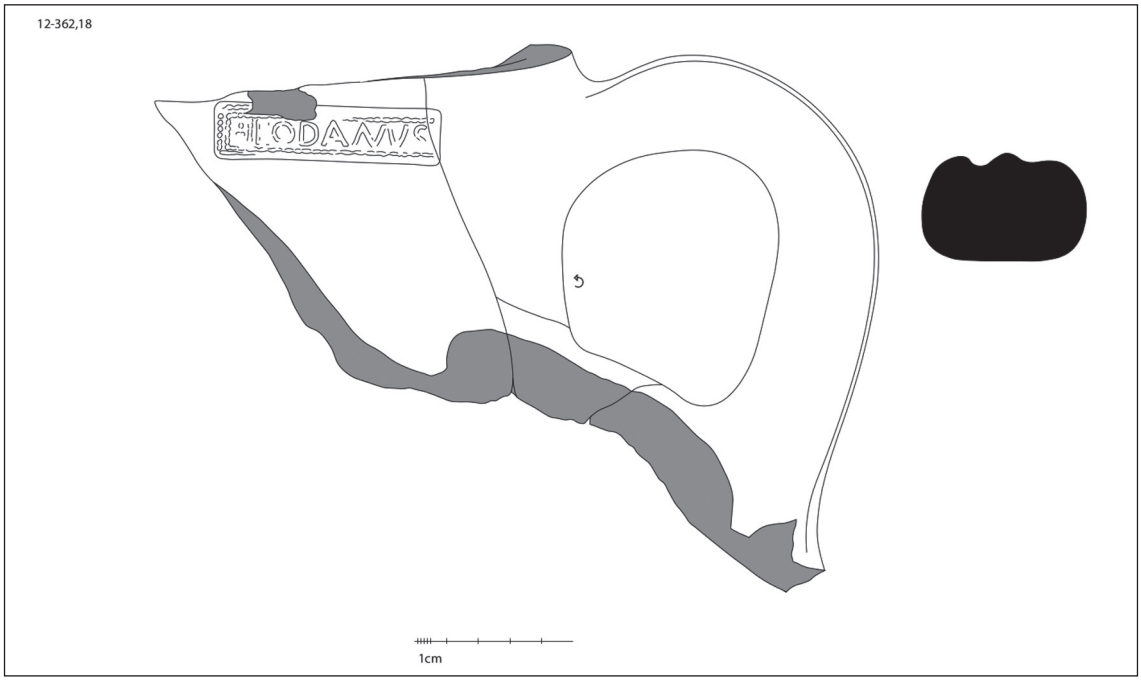

Fig. 7: Amphora 12-362,18 (Oberaden 74).

Fig. 8: Amphora 16,693,88 (Dressel 43).

phorae are related partly to the wine and oil production of the villa.[26] With the increased access to products from long-distance trade in the early Imperial period, imports increase, and it is possible to detect a differentiation of the regions of origin. The import of Spanish fish-products, as well as Spanish, French, and Cretan Wines (transported for example in Dressel 7–11 or Dressel 43) benefited from its proximity to Rome and its ports. This was facilitated by their connection with the wider Mediterranean and its increasingly interconnected markets.

Conclusions – The Villa Metro Anagnina and the Suburbium of Rome

Overall, the development of the Villa Metro Anagnina reflects the process of socio-economic transformation that unfolded in the Roman Suburbium during the late Republican and early Imperial period. In the surroundings of Rome, shifting economic realities confronted the villa owners. The agricultural production of the Roman Campagna was no longer sufficient and/or necessary for the city's growing demand of staple foods, which now were imported increasingly from the newly added provinces.[27] Simultaneously, the capital's hinterland gained more and more importance as the place for the luxurious suburban estates of the empire's elite.[28] This led to an increase of land prices and made it more difficult to successfully run an extensive agricultural facility.[29] The example of the Villa Metro Anagnina could suggest that one possible strategy to handle these new realities was to change the functional concept from an agricultural to an artisanal production. The relatively close distance to Rome (ca. 7 km) and its ports, as well as the nearby overland connection to the Via Latina offered multiple accessible markets for manufactured products.

Notes

[1] Tombrägel 2014, 193–214; Tombrägel – Bauch 2018, 153–180.

[2] Tombrägel 2014, 198–200.

[3] Tombrägel 2014, 201 f.

[4] Tombrägel – Bauch 2018, 163–168.

[5] Instead of the storage of grain, a use for wine or oil is evident in many sites, e.g. in the Villa of Castel di Guido: De Franceschini 2005, nr. 54, 156–161; or the Villa of Artena: Brouillard et al. 2012. The storage of non-agricultural products, like tiles, can also be observed: see the Villa of San Pietro di Tolve: Di Giuseppe 2008, 363–368.

[6] The use of a closed storeroom alone does not exclude the production of wine or oil. The numerous *cellae vinariae* in open courtyards, known from the surroundings of Pompeii, are often mentioned in this discussion, and were mainly used at the Gulf of Naples: See Feige 2021.

[7] Neither have been found the functional parts of a press (e.g. *foramina, stipides,* or an *ara*), nor can other typical features of Roman *torcularia* be recognized, such as a press platform or a *calcatorium.* Concerning the usual equipment of pressing facilities, see Brun 2004.

[8] An example of this is shown by archaeological evidence from the so-called Villas of M. Cellius Africanus and N. Popidius Narcissus Maior near Pompeii: Stefani 2003; Dé Spagnolis 2002, 105–108. 273 f.

[9] A differentiated use of such a storage area can be seen in the Villa of Russi, where parts of a large storage room was used for grain or dry goods and the remaining area was used for liquid commodities: Sacagliarini Corlàita 1975.

[10] See Morel 2007, 503 f.

[11] Carandini et al. 2006, 103–189 fig. 55. 71.

[12] Widrig 1980. See also the Republican Villa della Piscina in Centocelle: Coletti – Pacetti 2004.
[13] The closest chronological parallels with secured dates and comparable layouts can be found in the Villas of Selvasecca: Klynne 2007; Piano di Comunità: Belelli Marchesini 2015; and Villa Prato: Broise – Lafon 2001. All three sites can be dated to the later part of the 2nd century BC.
[14] For the following see Feige (forthcoming).
[15] See for example the villas of Castel Giubileo 1 and 15: De Franceschini 2005, nr. 12–13, 56–59; Piano di Comunità: Belelli Marchesini 2015; Cinquina: De Franceschini 2005, nr. 11, 54–56; or Casale Ghella: De Franceschini 2005, nr. 16, 63–66.
[16] See again the so-called Villas of M. Cellius Africanus and N. Popidius Narcissus Maior near Pompeii: Stefani 2003; Dé Spagnolis 2002.
[17] For the current state of research regarding the beginnings of the villa economy see: Volpe 2012; Morel 2007.
[18] For example, Villa di Settefinestre: Carandini 1985; Villa di Livia: Messineo 2001.
[19] At this point of research, it is not possible to give detailed information about the exact nature of the manufacturing process. Not every basin-vessel context can be highlighted as a proper *fullonica*. See for the discussion: Flohr 2013, 20–30.
[20] Ostia, Fullonica del Cardo: Pietrogrande 1976, 9–13. Pompeii: Flohr 2013, 25–27.
[21] Due to the poor preservation, it is not possible to determine the height of the basins. The surface measurements nevertheless find close comparison in the basins of the fullonicae in Pompeii: VI,8,20: min. 4,5 m²–max. 5,6 m²; I,6,7: min. 3,45 m²–max. 5,5 m²; VI, 12,21: min. 6,5 m²–max. 7,5 m².
[22] Tombrägel – Bauch 2018, 170–173. The reservoir 1279 was excavated by the Soprintendenza in 2010 and is not accessible at the moment.
[23] Aqueducts and villas: Coates-Stephens 2003, 430–432; Marzano 2007, 166–171; Wilson 2009, 750–753.
[24] 12–362,18 from room XXI. Even if some Oberaden 74 have been detected in western central Italy, until now a specimen with a Philodamus stamp was lacking outside of Tarraconensis, Gaul and Germania Inferior. See on Oberaden 74 in general and on the amphorae with a Philodamus stamp in particular: Miró i Canals 1981/1982; Miró i Canals 1988; Berni Millet – Revilla Calvo 2008, 99; Carreras Monfort – González Cesteros 2012; Berni Millet und Miró i Canals 2013, 74 f.
[25] 16–693,88 from room XIV. The excavations at the Nuovo Mercato Testaccio have produced a great variety on Cretan amphorae, among them many with tituli picti: Casaramona et al. 2010. The specimen of Villa Anagnina belongs to group AC 4.
[26] See Cambi und Volpe 1985 on Settefinestre. Another good example is the Villa of Pliny in Tuscis, although there are no Spello-amphorae in Anagnina; see Molina Vidal 2009.
[27] See Marzano 2013.
[28] See Mayer 2005.
[29] See Temin 2013, 139–144.

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Figs. 1. 2: by the authors. – Fig. 3: after: De Franceschini 2005, 157 fig. 54. – Fig. 4: after: Pasqui 1897, Pl. 14 + Sogliano 1899, 14. – Figs. 5–8: by the authors.

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