Publikationen des Deutschen Archäologischen Instituts

Monika Trümper, Domenico Esposito, Clemens Brünenberg, Antonio F. Ferrandes, Giacomo Pardini, Alessandra Pegurri, Mark Robinson

Republican Baths at Pompeii: New Research on the Development and Function

Archäologischer Anzeiger 2. Halbband 2024, 1–131 (§)

https://doi.org/10.34780/v89xxw20

Herausgebende Institution / Publisher:
Deutsches Archäologisches Institut

IMPRESSUM

Archäologischer Anzeiger
erscheint seit 1889/*published since 1889*

AA 2024/2 • 294 Seiten/*pages* mit/*with* 255 Abbildungen/*illustrations*

Herausgeber/*Editors*
Friederike Fless • Philipp von Rummel
Deutsches Archäologisches Institut
Zentrale
Podbielskiallee 69–71
14195 Berlin
Deutschland
www.dainst.org

Peer Review
Alle für den Archäologischen Anzeiger eingereichten Beiträge werden einem doppelblinden Peer-Review-Verfahren durch internationale Fachgutachterinnen und -gutachter unterzogen./*All articles submitted to the Archäologischer Anzeiger are reviewed by international experts in a double-blind peer review process.*

Redaktion und Layout/*Editing and Typesetting*
Gesamtverantwortliche Redaktion/*Publishing editor*:
Deutsches Archäologisches Institut, Redaktion der Zentralen Wissenschaftlichen Dienste, Berlin
(https://www.dainst.org/standort/zentrale/redaktion), redaktion.zentrale@dainst.de
Für Manuskripteinreichungen siehe/*For manuscript submission, see*: https://publications.dainst.org/journals/index.php/aa/about/submissions
Redaktionelle Bearbeitung/*Editing*: Dorothee Fillies, Berlin
Satz/*Typesetting*: le-tex publishing services GmbH, Leipzig
Corporate Design, Layoutgestaltung/*Layout design*: LMK Büro für Kommunikationsdesign, Berlin

Umschlagfoto/*Cover illustration*: Pontische Amphora des Paris-Malers, Inv. 55.7. The Metropolitan Museum of Art (https://www.metmuseum.org/art/collection/search/254814), Bearbeitung: Ausschnitt des Originalbildes und Verwendung eines Farbfilters, CC0 (https://creativecommons.org/publicdomain/zero/1.0/)
Gestaltung Catrin Gerlach nach Vorlage von Tanja Lemke-Mahdavi. Alle Rechte vorbehalten

Druckausgabe/*Printed edition*

Druck und Vertrieb/*Printing and Distribution*: Dr. Ludwig Reichert Verlag, Tauernstraße 11, 65199 Wiesbaden •
info@reichert-verlag.de, www.reichert-verlag.de

P-ISSN: 0003-8105 – ISBN: 978-3-7520-0835-7

Druck und Bindung in Deutschland/*Printed and bound in Germany*

Digitale Ausgabe/*Digital edition*

Webdesign/*Webdesign*: LMK Büro für Kommunikationsdesign, Berlin
XML-Export, Konvertierung/*XML-Export, Conversion*: digital publishing competence, München
Programmiertechnische Anpassung des Viewers/*Viewer Customization*: LEAN BAKERY, München

E-ISSN: 2510-4713 – DOI: https://doi.org/10.34780/wh9cv954
Zu den Nutzungsbedingungen siehe/*For the terms of use see* https://publications.dainst.org/journals/index/termsOfUse

ABSTRACT

Republican Baths at Pompeii

New Research on the Development and Function

Monika Trümper – Domenico Esposito – Clemens Brünenberg – Antonio F. Ferrandes – Giacomo Pardini – Alessandra Pegurri – Mark Robinson

The Republican Baths in Pompeii were excavated and briefly published in 1950 by Amedeo Maiuri. While one of the few known Late Republican baths, the complex has received little attention since 1950. Therefore, a research project initiated in 2015 by the Freie Universität Berlin and Oxford University aimed to investigate the construction date, development, function, urban context, and socio-cultural significance of the Republican Baths at Pompeii. This article presents the main results of fieldwork carried out between 2015 and 2019 that entailed a systematic reassessment of the architecture and decoration and stratigraphic excavations in 24 areas. After general remarks on the architecture and decoration, the 21 rooms of the baths are assessed one after another, discussing the architecture, decoration, function, and possible changes. The concluding evaluation argues that a private investor built the baths after 130/120 BC with separate sections for men and women; the baths were once remodeled, presumably after Pompeii became a Roman colony in 80 BC, before being abandoned and overbuilt around 30/20 BC.

KEYWORDS

Pompeii, Insula VIII.5, republican baths, urban development, Late Republican bathing culture

MONIKA TRÜMPER – DOMENICO ESPOSITO – CLEMENS BRÜNENBERG – ANTONIO F. FERRANDES – GIACOMO PARDINI – ALESSANDRA PEGURRI – MARK ROBINSON

Republican Baths at Pompeii

New Research on the Development and Function

1 The Republican Baths are located in the SE corner of Insula 5 of Pompeii's Regio VIII. The lot is bordered by the Via dei Teatri in the E and the Vicolo delle Pareti Rosse in the S, and situated next to the propylon of the Foro Triangolare (Fig. 1)[1]. The 19th century cork model of Pompeii (Fig. Suppl. 1) shows a largely empty lot that forms a conspicuous contrast to the surrounding buildings with their high-standing walls. The latter include the Casa della Calce (VIII.5.28) to the N and the Casa delle Pareti Rosse (VIII.5.37) to the W of the Republican Baths. Because focus in research was usually on Pompeii's spectacular well-preserved remains, the ›empty‹ corner lot of VIII.5 was largely neglected. The aim of this article is to change this and to reassess the development and significance of this lot in the urban context, with a particular focus on its use as a publicly accessible bath complex.

State of Research, Aim and Structure of Article

2 The area of the Republican Baths was first partially explored in the 19th century, when parts of a hypocaust system were revealed (Fig. 2: room 9). A. Mau correctly identified these as remains of a bath complex and recognized that the baths were razed and overbuilt by a garden peristyle complex of the adjacent Casa della Calce[2]. When the lot was fully excavated under A. Maiuri between May and August of 1950, Mau's assumptions were largely confirmed. Maiuri's field director, A. D'Avino, provided a detailed excavation diary[3], and the draftsman, R. Oliva, made three plans: a state plan of all remains (Fig. 2) and two additional plans with structures attributed to the baths (Fig. 3)

1 While all figures central to the argument of this article are included in the text, referred to as Fig. 1, Fig. 2 etc., additional figures and tables are available in an online supplement, referred to as Fig. Suppl. 1, Fig. Suppl. 2 etc. and Tab. Suppl. 1, Tab. Suppl. 2 etc. For the supplementary figures and tables see https://doi.org/10.34780/v89xxw20.

2 Mau 1883.

3 D'Avino 1950.

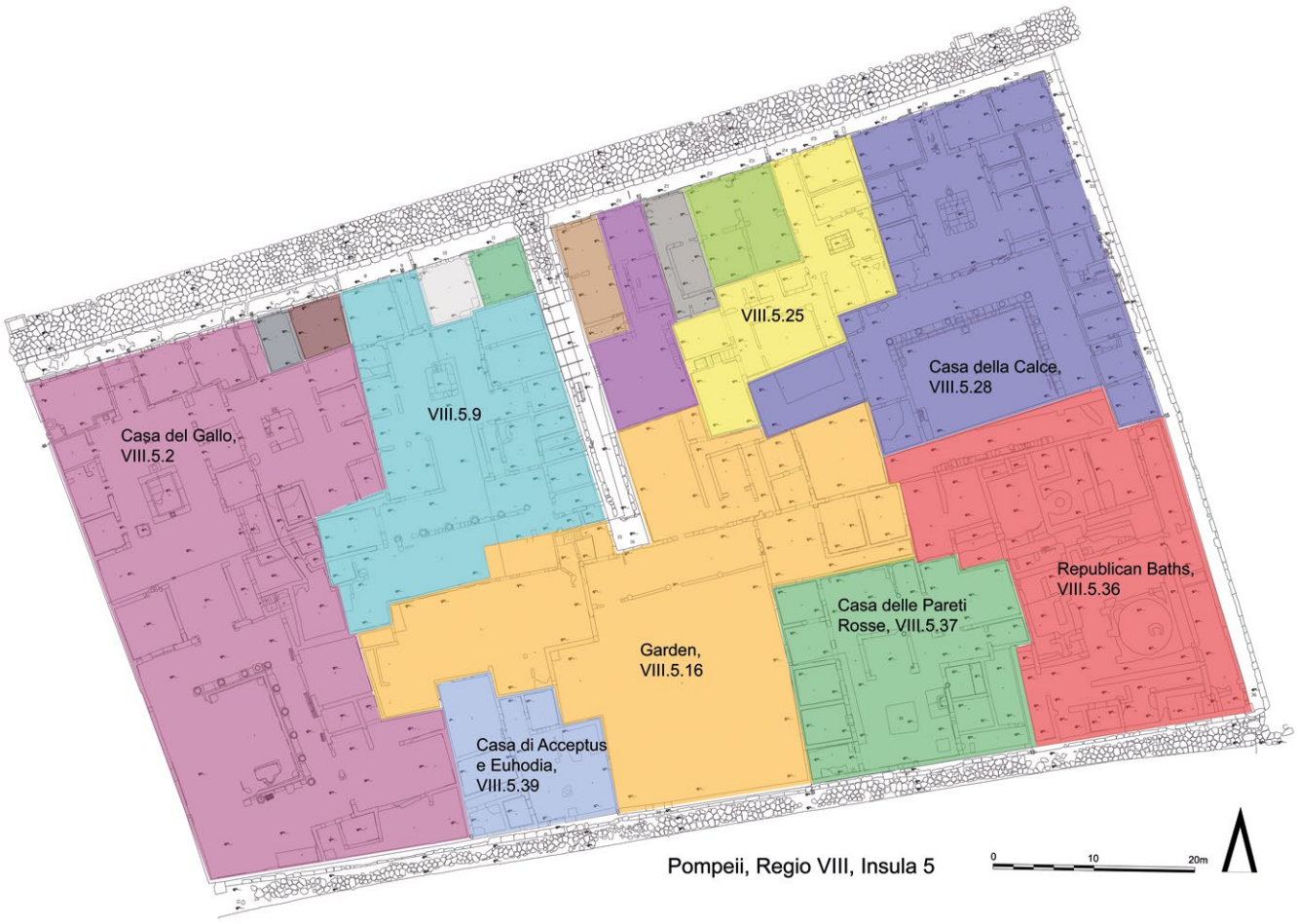

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Fig. 1: Pompeii, Regio VIII, Insula 5, AD 79. Plan

and the garden peristyle complex, respectively[4]. Based on this documentation, Maiuri promptly published an article of 20 pages in the Notizie degli scavi[5]. He summarily described the baths and identified two separate sections for men and women. The men's section would have included an apodyterium, frigidarium, tepidarium, and caldarium (Fig. 3: I–III, F), the women's only an apodyterium/tepidarium and caldarium (Fig. 3: V, VI). He also recognized a service section with praefurnium, deep well, and water reservoir (Fig. 3: S, P), but the entire S part of the lot is empty. Maiuri did not discuss the decoration, technological equipment, and changes in detail. Without providing any stratigraphic evidence, he reconstructed the following chronology: the baths would have been built in the »ultima età del comune italico di Pompei« or in the »prima età della colonia romana«[6]. The technique and decoration of the garden peristyle structures would suggest that the baths were transformed into the house in the »primi decenni dell'età augustea«[7].

3 While the Republican Baths were occasionally referred to in research on Roman baths, with debates typically focusing on their construction date[8], F. Pesando was the first to comprehensively reassess the available evidence and to partially clean and examine the remains in the early 2000s. Based on the wall technique, technologi-

4 Published in Maiuri 1950, 117 fig. 1; 134 f. figs. 11. 12.
5 Maiuri 1950.
6 Maiuri 1950, 130.
7 Maiuri 1950, 130.
8 Pesando 2002/2003, 224 n. 32 with reference to research debate.

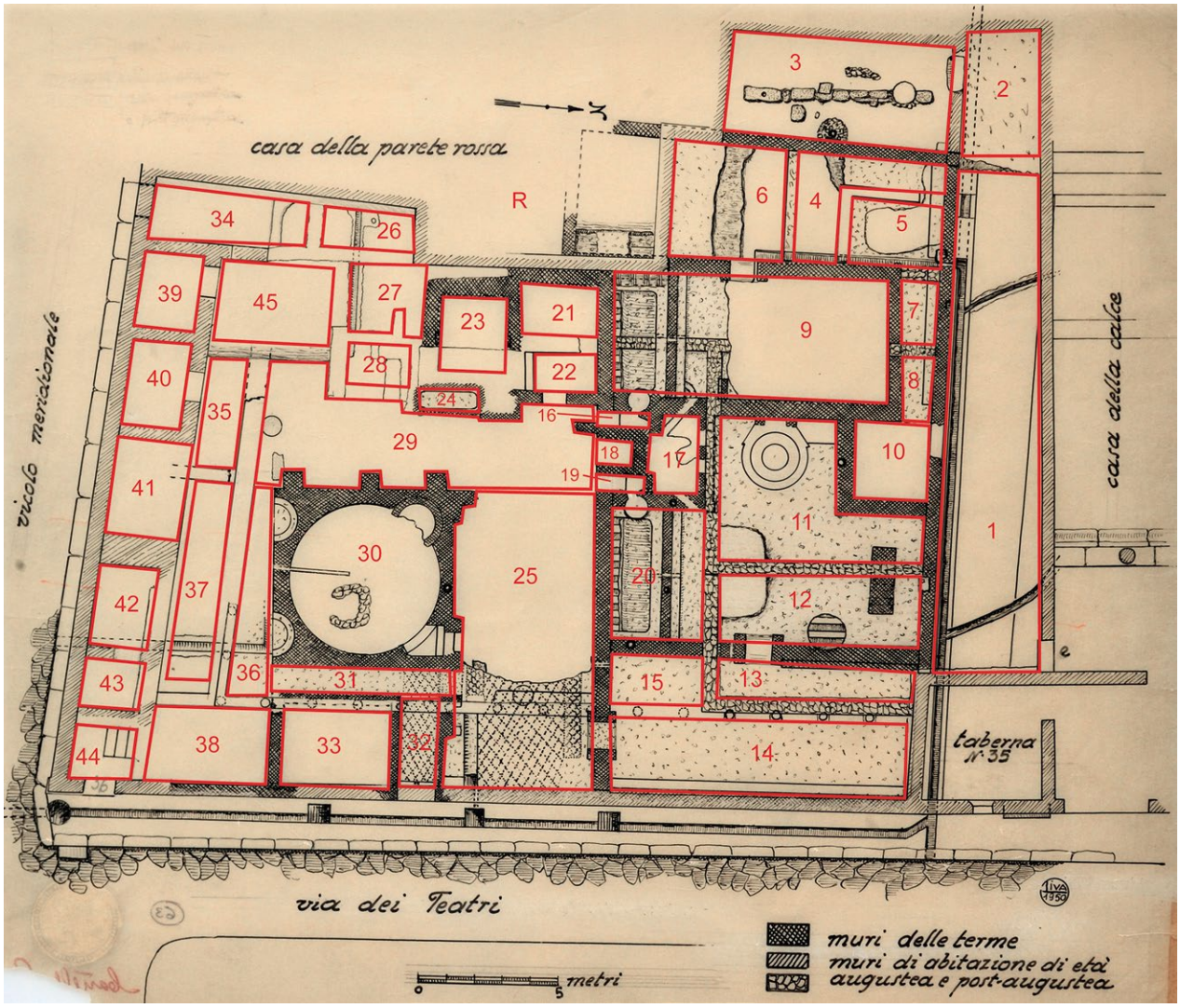

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Fig. 2: Republican Baths, Maiuri's state plan with numbering of project (scale 1 : 250)

cal equipment, decoration, and pottery sherds from the fill under the pavement of the women's tepidarium, he dated the construction of the baths to the »ultimi dennni del II secolo a.C.«[9]. The baths would have belonged to a complex of buildings in the Foro Triangolare area that the Samnite city had built for military and athletic training of male and female youths, and that included at least the Palestra Sannitica, a Domus Publica, and the Republican Baths[10]. While Pesando identified some changes in the Republican Baths and acknowledged that they were potentially used until the late 1st c BC he argued that the Roman colonists arriving in 80 BC would not have invested in the baths because they were a political and social symbol of Samnite identity.

4 A brief analysis of the research history shows that key questions of the Republican Baths remain debated until today, including their development, function, urban context, and socio-cultural significance. A project dedicated to *Bathing Culture and the Development of Urban Space in Pompeii* was established to investigate these questions. Focusing on Pompeii's earliest public baths, the Republican Baths and the Stabian Baths, this project was carried out in cooperation between the Freie Universität Berlin, Oxford University, and the Università di Napoli L'Orientale, and was funded by the Excellence

9 Pesando 2002/2003, 239.

10 Often, other features like the porticoes of the Foro Triangolare and the Quadriporticus behind the Great Theater are also attributed to this complex; Trümper 2018.

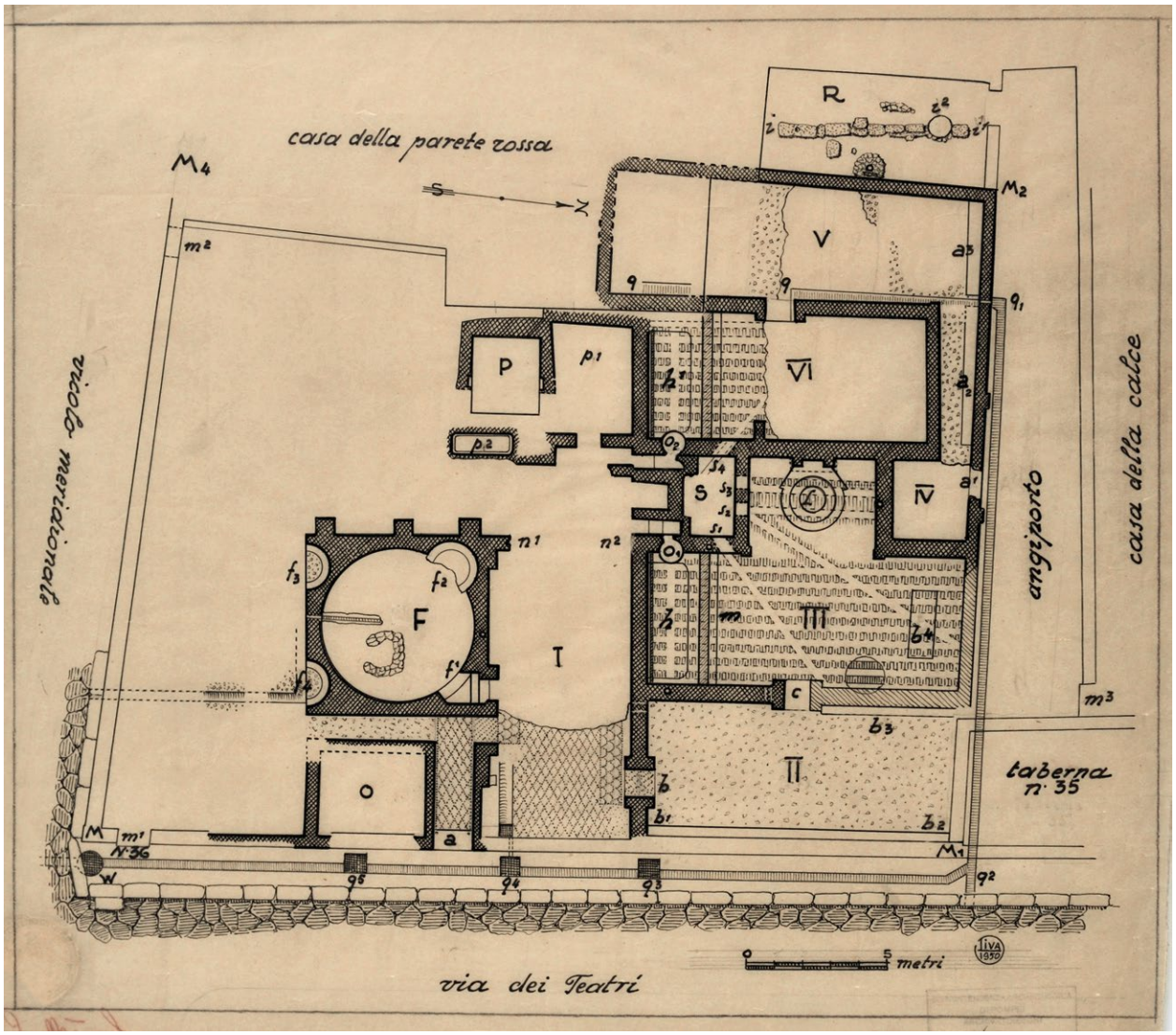

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Fig. 3: Republican Baths, reconstructed plan of the baths according to Maiuri (scale 1 : 250)

Cluster Topoi between 2015 and 2018, and the German Research Foundation between 2021 and 2023. The methodology employed included stratigraphic excavation in both baths, surveys of the architecture and decoration with various documentation methods, and multiple scientific analyses. Three of 11 campaigns were fully dedicated to the Republican Baths which were first thoroughly cleaned in the spring of 2015 by a team from Berlin. Two excavation campaigns were completed by the universities of Berlin and Oxford in the falls of 2015 and 2016. Further investigations, involving cleaning and documentation by a team from Berlin, took place in 2017 and 2019. Documentation of the Republican Baths included hand drawn state plans and sections, photos, photogrammetry, structure from motion, aero-ortho-photos, and databases of the walls and decoration (Figs. 4. 5. 6; Fig. Suppl. 2). Furthermore, 3D reconstruction models were made, ash deposits and calcareous concretions were analyzed, and 24 soundings were carried out (Fig. 7). Many areas had been explored during Maiuri's excavations, but intact stratigraphies were found in 16 trenches, while eight others were only cleaned, removing Maiuri's backfill and debris accumulated after 1950 (Fig. 7: Areas 6b, 9, 15, 25b, 26, 34, PR2, taberna 35).

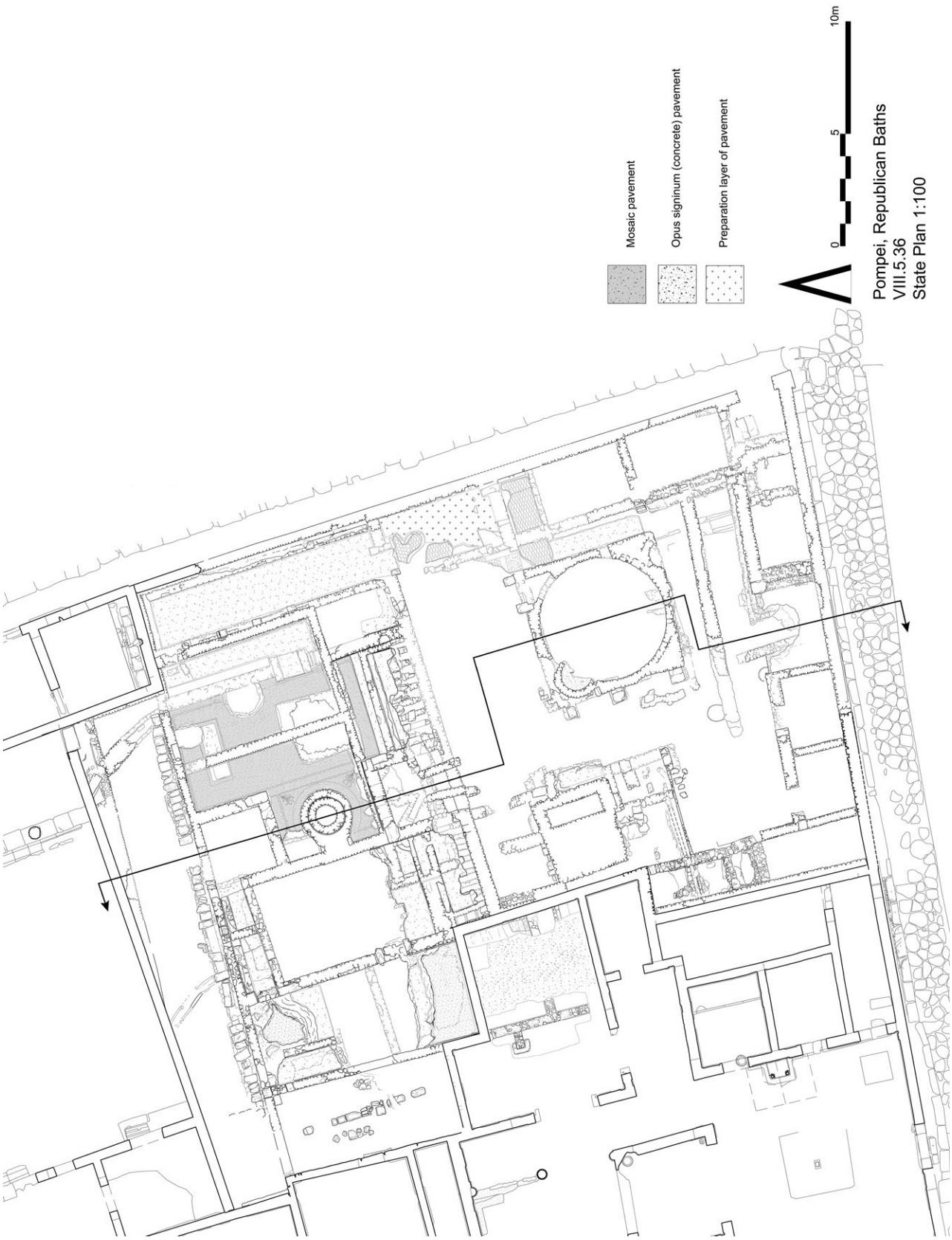

Fig. 4: Republican Baths, state plan: without levels and rooms numbers, to facilitate legibility (scale 1 : 250)

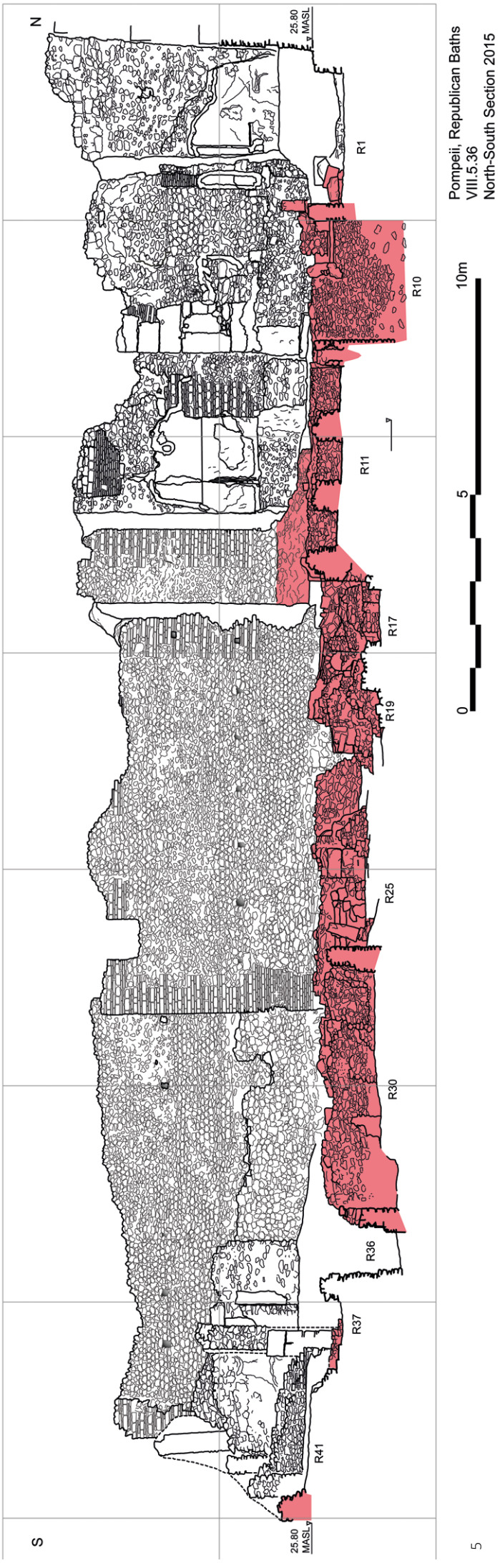

Fig. 5: Republican Baths, North-South Section, 2015 (scale 1 : 125). For the location of the section, see Fig. 4

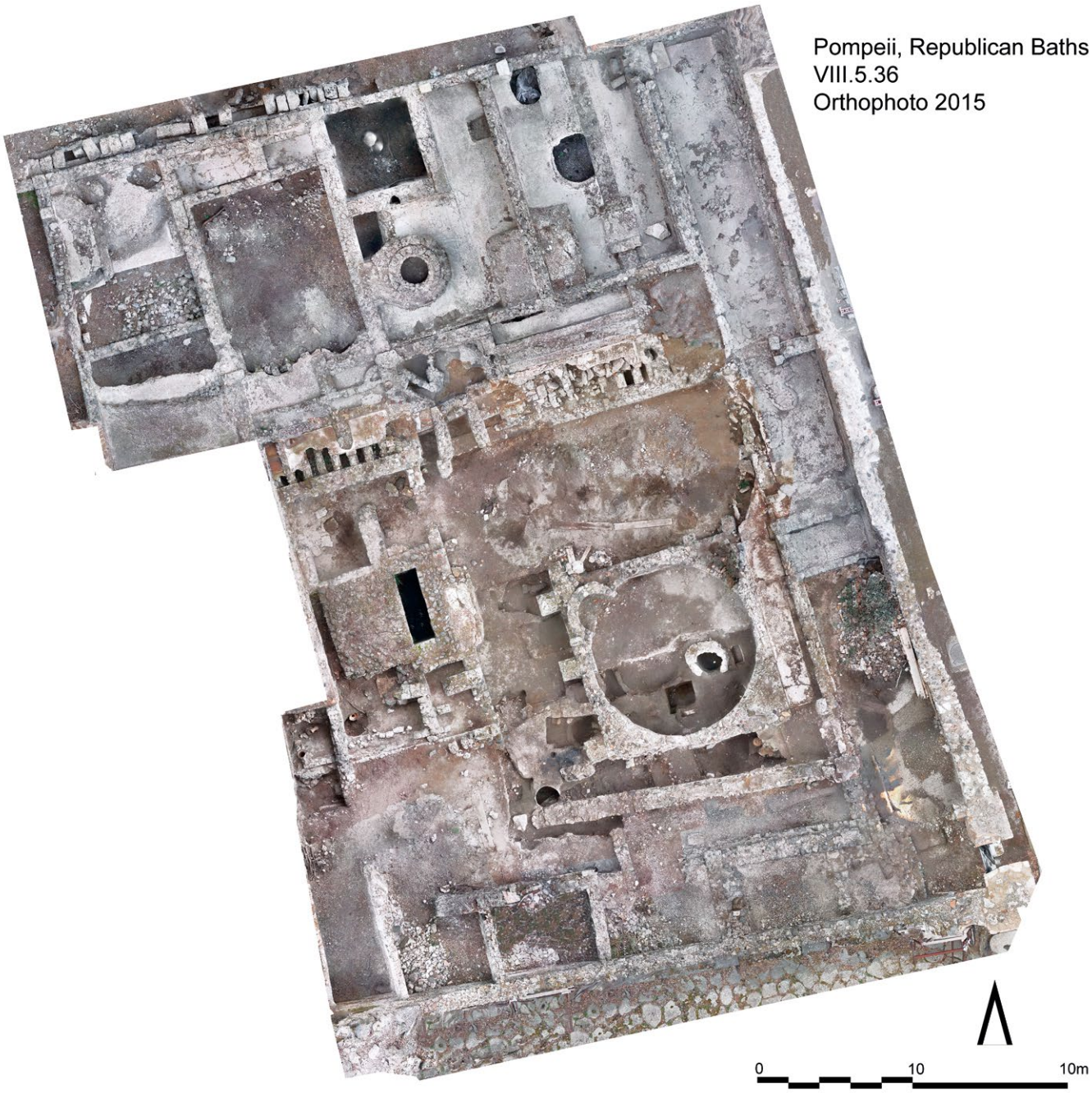

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Fig. 6: Republican Baths, orthophoto, 2015 (scale 1 : 200)

5 Based on the investigations carried between 2015 and 2019, the following chronology can be reconstructed for the development of lot VIII.5:

- c. 7000–800 BC: The earliest deposits recorded were yellow white ash with white lapilli from the Mercato eruption of Vesuvius around 7000 BC. A soil developed from this which included Bronze Age pottery (Fig. 7: Areas I; II,1; 29). Further ash layers and paleosols were found, among them a large-scale deposition of grey ash, probably from the AP3 eruption of Vesuvius.
- c. 800–400 BC: Some Archaic activity was identified on site (Fig. 7: Areas I; 29).
- c. 400 to mid-2nd c BC: Several structures were buried by the baths which can roughly be dated based on the building technique and stratigraphy (Fig. 2): an open water channel running from W to E in rooms 26, 27, 29 that may have led to a water tank in room 30; cisterns in rooms 25 and 26; a well in room 30 that cut the aforementioned tank, and a well in room 25. In contrast to these,

7

Fig. 7: Republican Baths, plan with trenches 2015–2019

the deep well 23 was reused for the baths[11]. A block wall of pappamonte, soft lava, and travertine had already been found by Maiuri (Fig. 2: room 3).

- After 130/120 BC: The baths were built.
- Between 130/120 BC and 30/20 BC: The baths were remodeled.
- c. 30/20 BC: The baths were abandoned and partially destroyed, and the lot was occupied by a garden peristyle of the Casa della Calce.
- Between 30/20 BC and AD 62: The garden peristyle section was remodeled.
- After AD 62: The garden peristyle section was transformed into a builder's yard which had an independent entrance in the SE corner, but was still connected with the Casa della Calce by a door.

6 Due to spatial constraints this article in the following focuses on the baths. The evidence regarding the earlier uses of the bath lot and the analysis of calcareous concretions will be published elsewhere[12]. The goal here is to present the evidence for the

11 Trümper 2020b, 143–146; Heide 2021.

12 Mark Robinson will publish the evidence of earlier phases, Cees Passchier and Gül Sürmelhindi the analysis of calcareous concretions.

chronology outlined above, and to discuss the design and function of the original and remodeled baths. The urban context of the baths, including Pesando's above-mentioned theory, has been critically discussed in an article published in 2018[13]. Further assessment of this intriguing topic must await full publication of recent research in the Foro Triangolare that provides new evidence for much debated issues, like the construction date of the Foro's porticoes[14]. The transformation of the baths into a garden peristyle has been addressed in another article, published in 2020[15]. Similarly, a more extensive assessment of this important topic should be based on further excavation in the Casa della Calce and the Casa delle Pareti Rosse, which is the goal of a recently initiated new project[16].

7 The baths are reconstructed here with a surface area of 680 m^2[17] and 21 rooms. After general remarks on the architecture and decoration of the baths, the rooms are assessed one after another, discussing the function, size[18], preservation of walls, doors, pavement, wall plaster, specific features, and possible changes. Particular focus is on the stratigraphy that provides data for the chronology of the baths[19]. The strata or correlated building activities are always discussed from the bottom to the top, or from the earliest to the latest activity. To not overburden the text, important data is presented in four tables: two tables with levels of floors and foundations (Tab. Suppl. 1. 2); a table with the unità stratigrafica/stratigrafiche (abbreviated US in the following) that provide a terminus post quem (abbreviated tpq in the following) for the different phases of the baths (Tab. Suppl. 3); and a table with the diagnostic finds (Fig. 8), organized according to US, and complemented by drawings of diagnostic sherds (Fig. 9). The conclusion assesses the two phases of the baths and briefly analyzes them in the context of Late Republican bathing culture.

8 While the water management and heating system are two key features of baths, both cannot be discussed here in detail. Thomas Heide has investigated the water management within the frame of his dissertation and has already published an article on the Republican Baths[20]. The heating system will be briefly presented here but it deserves a separate treatment which goes beyond the purpose of this paper.

9 To facilitate reference, the construction of the baths is referred to here as phase 1, the remodeling as phase 2, the construction of the garden peristyle as phase 3, its remodeling as phase 4, and the post-62 AD period as phase 5. Using Maiuri's state plan, the project has assigned numbers to each space that is defined by walls, construction date notwithstanding (Fig. 2: 1–44). Trenches were numbered with Roman numerals in 2015, but numbers of the room plan were used in the following years (Fig. 7). The rooms of the reconstructed plans of the baths were numbered separately with Arabic numerals (Figs. 10. 11). All three designations are used here. In order to avoid confusion, room plan numbers (Fig. 2) are cited as R1–R44 and the baths plan numbers as 1–21 (Figs. 10. 11).

13 Trümper 2018.

14 Osanna et al. 2021 and Osanna et al. 2024 with further bibliography.

15 Trümper 2020a.

16 This project, titled *Prime Location at Pompeii: Development and Function of Insula VIII.5*, has been initiated by Domenico Esposito and Monika Trümper in March of 2024.

17 Including the exterior walls.

18 Excluding the walls.

19 For reasons of space, Trenches 4 and 6 that were made in the vicolo (Fig. 7) are omitted here: Trench 4 is particularly interesting for the use of the terrain before the construction of the baths, but also provides a tpq of the late 4th c BC for the construction of the baths, with the fill (US1011) of a pit (US1010) going under the drain along the N wall of the men's caldarium. In Trench 6, the drain along the N wall of the women's apodyterium cut the stratum US1210, whose pottery provides a tpq of the 2nd c BC; but this part of the drain was built at an unknown time after the construction of the baths and before the construction of the garden peristyle. Thus, it does not help to date the use phases of the baths more closely.

20 Heide 2021; Heide 2023, 37–119; cf. also Trümper 2020b.

US	Phase	Tot. Frg.	Class	Type and production	Chronology (terminus post quem)	Ex.	Sherd	Plate
13	1 or 2	66	Black Gloss	Lamboglia 5 (Campana B)	150 BC	1	R	
17	2	196	Black Gloss	Lamboglia 7 (Campana B)	150 BC	1	R	
			Thin-Walled Ware	Ricci 1/48	1st c BC	1	R	Fig. 9, 1
			Thin-Walled Ware	Ricci 1/87	1st c BC	1	R	Fig. 9, 2
23	1	108	Black Gloss	(Campana A)	4th/3rd c BC	1	W	
27	2	311	Black Gloss	Morel 2252, 2255–2257 (Campana B)	150 BC	1	R	Fig. 9, 3
			Bronze coin	»Campanian atelier« (Pompeii inv. 90398) Pardini 2017, 172–183	130/120–80/70 BC	1		
34	2	39	Lamp	Dressel 2	1st c BC	1	D	
			Thin-Walled Ware	Ricci 1/46 (Central Italy)	1st c BC	1	R	Fig. 9, 4
37	1	64	Black Gloss	(Campana A)	4th/3rd c BC	1	R	
41	1	81	Bucchero		7th c BC	1	H	
512	1	21	Black Gloss	Morel 2951-54, 2977-78 (Campana A)	175 BC	1	R	Fig. 9, 5
516	1	129	Thin-Walled Ware	(Central Italy)	2nd c BC	1	R	
517	1	37	Bronze coin	»Campanian atelier« (Pompeii inv. 90401) Pardini 2017, 172–183; Hobbs 2013, 214, type 8B, BH66; 272 pl. 40	130/120–80/70 BC	1		
518	1	47	Black Gloss	Lamboglia 55 (Campana A)	200 BC	1	R	
528	1	67	Amphora	Ramon T 7.5.2.1 (North-African)	Late 3rd c BC	1	R	Fig. 9, 6
			Thin-Walled Ware	Garland decoration, Ricci 53 (Central Italy)	Third quarter of 1st c BC	1	W	
531	1	30	Black Gloss	Lamboglia 36 (Campana A)	225 BC	1	R	
535	2	30	Black Gloss	Campana A	4th/3rd c BC	1	W	
536	1	14	Black Gloss	Morel 2744 (?) (Campana A)	225 BC	1	R	Fig. 9, 7
603	4	202	Thin-Walled Ware	Ricci 1/12 (Central Italy)	End of 1st c BC	1	R	
				Marabini XXXV (Central Italy)	Third quarter of 1st c BC	1	R	
619	1	61	Black Gloss	Morel 1441, 1443, 1445 (Campana A)	150 BC	1	R	Fig. 9, 8
630	1	3	Bucchero		7th c BC	1	W	
702	2	21	Black Gloss	Morel 2255 (Campana A)	150 BC	1	R	Fig. 9, 9
				Morel 2252 (Campana A)	150 BC	1	R	Fig. 9, 10
710	1	123	Black Gloss	Lamboglia 5 (Campana A)	150 BC	1	B	
1103	3	252	Thin-Walled Ware	Ricci 2/179 (Central Italy)	Third quarter of 1st c BC	1	R	Fig. 9, 11
			Lamp	Dressel 2	1st c BC	1	D	
1104	1	59	Amphora	Dressel 1B (Vesuvian)	130/125 BC	1	R	
			Bronze coin	»Campanian atelier« (Pompeii inv. 90408) Pardini 2017, 172–183; Stannard 2013, 152, TC-28.1-2; 155 fig. 11	130/120–80/70 BC	1		

US	Phase	Tot. Frg.	Class	Type and production	Chronology (terminus post quem)	Ex.	Sherd	Plate
1301	3	490	Black Gloss	Morel 2323 (Campana C)	1st c BC	1	R	Fig. 9, 12
			Black Gloss	Lamboglia 2 (Campana C)	1st c BC	1	R	
			Thin-Walled Ware	Ricci 1/89 – Marabini VI (Central Italy)	1st c BC	1	R	Fig. 9, 13
			Thin-Walled Ware	Ricci 2/384-386 (Central Italy)	Second/third quarter of 1st c BC	1	R	Fig. 9, 14
			Italian Terra Sigillata	*Conspectus* 4	Augustan period	1	R	Fig. 9, 15
			Lamp	Dressel 2	1st c BC	1	D	
			Lamp	Dressel 3	1st c BC	1	D	
			Amphora	Dressel 2–4 (Campanian)	60/50 BC	1	R	Fig. 9, 16
1305	1	33	Black Gloss	(Campana A)	4th/3rd c BC	1	W	
1307	1	26	Common Wares	Urceus – Giglio 2017, U17a (Vesuvian)	(4th c BC)	1	R	
1308	0	7	Bucchero		7th c BC	1	W	
1504	4	18	Black Gloss	(Campana A)	4th/3rd c BC	1	W	
1507	1	8	Black Gloss	(Campana A)	4th/3rd c BC	1	W	
1508	1	25	Black Gloss	(Campana A)	4th/3rd c BC	4	W	
			Amphora	Greco-italic amphora	4th c BC	1	H	
1510	1	39	Black Gloss	Morel 2252a (Campana B)	150 BC	1	R	Fig. 9, 17
			Black Gloss	Morel 2252/55 (Campana B)	150 BC	1	R	Fig. 9, 18
			Bronze coin	Massalian bronze coin (Pompeii inv. 90405) Feugère 2011, 127, PBM-47-9	150–100 BC	1		
1513	3	67	Black Gloss	Lamboglia 7 (Campana C)	1st c BC	1	R	
			Thin-Walled Ware	Ricci 1/89 – Marabini VI (Central Italy)	1st c BC	1	R	Fig. 9, 19
			Amphora	Dressel 1B (Vesuvian)	130/125 BC	1	R	
1605	2	52	Amphora	Dressel 1 (Vesuvian)	140/130 BC	1	H	
1610	1	94	Black Gloss	Morel 2252 (Campana B)	150 BC	1	R	Fig. 9, 20
			Bronze coin	»Campanian atelier« (Pompeii inv. 90402) Pardini 2017, 172–183; Stannard 2013, TC27/28	130/120–80/70 BC	1		
			Bronze coin	»Campanian atelier« (Pompeii inv. 90403) Pardini 2017, 172–183; Stannard 2013, 154, TC-3	130/120–80/70 BC	1		
1611	1	106	Black Gloss	Lamboglia 5 (Campana B)	150 BC	1	R	
			Bronze coin	»Campanian atelier« (Pompeii inv. 90411) Pardini 2017, 172–183	130/120–80/70 BC	1		
1702	2 or later	74	Black Gloss	Lamboglia 5 (Campana B)	150 BC	1	R	
			Thin-Walled Ware	Similis Ricci 1/7 (Central Italy)	1st c BC	1	R	
1703	2 or later	24	Black Gloss	Morel 2252d (Campana B)	150 BC	1	R	Fig. 9, 21
1705	1–4	129	Black Gloss	Morel 1441/1443/1445 (Campana B)	150 BC	2	R	Fig. 9, 22
				Morel 2245 (?) (Campana B)	150 BC	1	R	Fig. 9, 23
1713	1	18	Black Gloss	(Light clay)	4th/3rd c BC	1	B	
2103	3	126	Thin-Walled Ware	(Central Italy)	2nd c BC	2	PA, H	
2104	3	26	Thin-Walled Ware	(Central Italy)	2nd c BC	1	PA	

US	Phase	Tot. Frg.	Class	Type and production	Chronology (terminus post quem)	Ex.	Sherd	Plate
2105	3	819	Thin-Walled Ware	Ricci 1/89 (Central Italy)	1st c BC	2	R	Fig. 9, 24
				Similis Ricci 1/161 = Marabini XXX (Central Italy)	(Augustan period)	1	R	Fig. 9, 25
2109	1	31	Thin-Walled Ware	(Central Italy)	2nd c BC	1	PA	
2110	1	81	Black Gloss	Morel 2789 (Campana B)	3rd c BC	1	R	Fig. 9, 26
			Thin-Walled Ware	(Central Italy)	2nd c BC	1	PA	
2112	1	38	Black Gloss	(Campana A)	4th/3rd c BC	3	W	

8

Fig. 8: Diagnostic finds

10 The terminology of many features is debated in scholarship, and it is not always easy to choose between a neutral descriptive but often cumbersome term and a suggestive modern but often more concise term, or between long-established terms and perhaps more correct but not yet generally accepted terms. A compromise is chosen here. For building materials used in Pompeii, the recently established correct geological terminology is employed[21]; for building techniques, the debated modern ›opus‹ terms are used for the sake of brevity[22]; for pavements, the classification system of Tess (*Sistema per la catalogazione informatizzata dei pavimenti antichi*) is largely adopted that uses a neutral descriptive terminology based on materials and techniques[23]; for wall decorations, A. Mau's system of Four Pompeian Styles is maintained with updates regarding a more differentiated classification[24]; finally, for the bathing rooms the following frequently used terms are employed to facilitate reference to specific bathing standards[25]:

- Apodyterium: changing room, can be provided with benches and niches
- Destrictarium: room to scrub off dust and oil after exercise
- Tepidarium: warm room, can be heated by a portable heat source or floor- and wall-heating
- Caldarium: hot room, with collective immersion pool and shallow basin/labrum with cold water; pool heated by hypocaust system, remainder of room can be heated by portable heat source or floor- and wall-heating
- Frigidarium: cold room, with cold-water immersion basin/pool
- Laconicum: sweat room, can be heated by portable/above-ground heat source or floor- and wall-heating
- Labrum: a round basin that is usually elevated on a high pedestal and is filled with cold water for washing; most often found in the caldarium, but occasionally also in other rooms
- Palaestra: courtyard for exercise or passing time
- Praefurnium: furnace area for heating water, floors, and walls
- Schola labri: rectangular or apsidal recess that houses a labrum.

21 Kastenmeier et al. 2010, employing, for example, the term travertine for what is usually called Sarno limestone in older literature.

22 Contra Dessales 2020, 189–205 who established a neutral, but complex classification system.

23 https://tess.beniculturali.unipd.it/web/terminologia-e-definizioni/ (last accessed 2024/08/07); cf. also Dessales 2020, 237–257.

24 D'Auria 2020, 245–280.

25 Cf. Nielsen 1990, I 153–166.

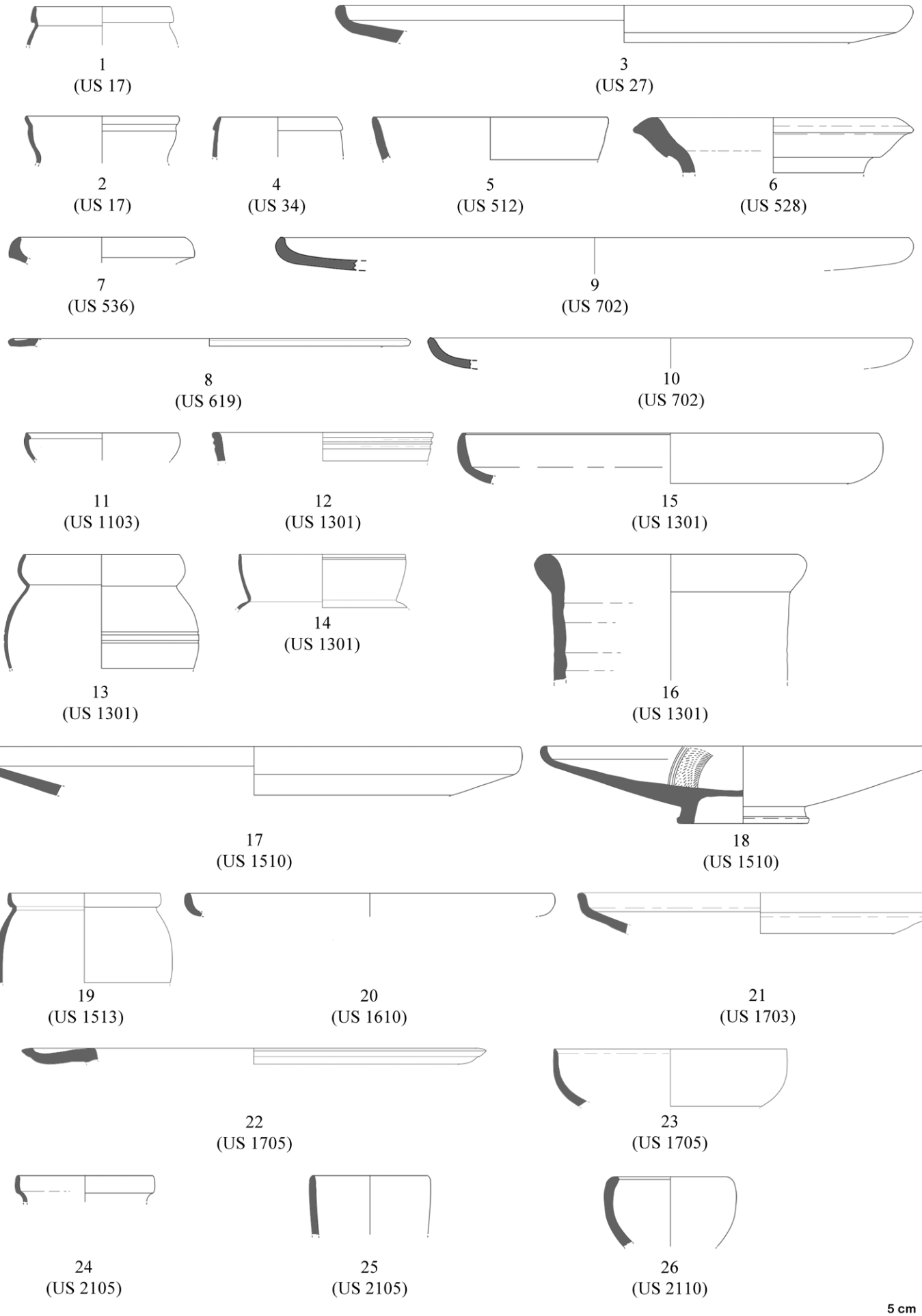

Fig. 9: Diagnostic pottery (scale 1 : 4)

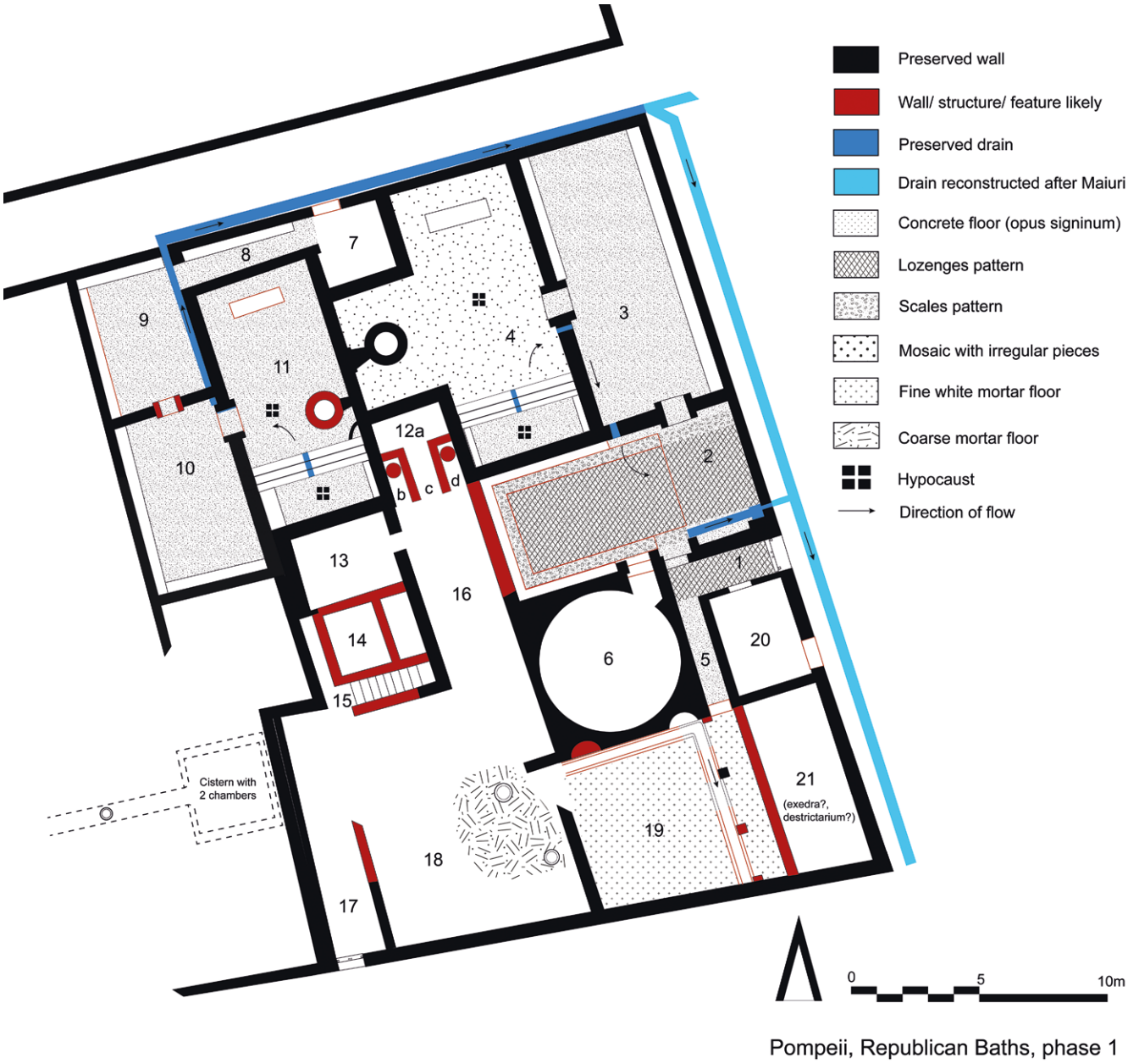

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Fig. 10: Republican Baths, reconstructed plan of phase 1 (scale 1 : 250)

Architecture and Decoration

11 The survey of visible walls and structures, as well as those revealed in trenches, served to systematically record the material and technique of walls and decoration, and their physical and chronological relationship. Based on this, walls and features were assigned to different building phases. The fact that the walls of the baths were razed in phase 3 to a homogeneous level further helped to identify walls belonging to the baths (Fig. 5). The walls attributed to the construction of the baths (phase 1) were made in opus incertum, with predominant use of black Vesuvian lava and, to a lesser extent, travertine and spolia, consisting mostly of tile fragments, bricks, limestone, and large river or sea pebbles. A pozzolanic mortar was used, characterized by its high tenacity, light grey color, and the inclusion of large volcanic aggregates (3–7 mm) and lumps of lime. Large blocks of travertine were used for corners and door jambs (with sizes of c. 100 × 30–35 × 35–40 cm)[26].

26 While the few fully preserved travertine blocks were measured, there is too little evidence to securely

11

Fig. 11: Republican Baths, reconstructed plan of phase 2 (scale 1 : 250)

12 Based on the stratigraphy and relationship of walls, few walls can be assigned to phase 2, including the buttresses of the laconicum 6, the partition wall of rooms 13a/b, the partition walls of the praefurnium area 12, and the enlargement of the socles of both labra (Figs. 4. 10. 11). These do not, however, differ significantly in material and technique from the phase 1 walls. No techniques such as opus quasi reticulatum, reticulatum, or testaceum could be identified for structures of the baths.

13 The baths were conceived with a remarkably coherent design that was skillfully adapted to the irregular outline of the available building lot and the topography of the terrain. The Insula VIII.5 originally seems to have been subdivided by two NS and EW running alleys (Fig. 1), and the baths were located S of the EW-alley (vicolo). While the N, E, and S façades were straight, the W border was irregular due to the existing buildings that had to be respected (Fig. 10). The predecessor of the Casa delle Pareti Rosse included a large double cistern in the SE corner of the lot which required

identify the use of an Oscan (27.5 cm) vs. Roman (29.5 cm) foot and to thus distinguish between Samnite and Roman building initiative; for this approach, cf. Poehler 2023, 85–88.

specific stabilizing measures: the W wall of corridor 17 of the baths was fortified with a separate wall of 2.40 m height (up to the top of the cistern vault). The N wall of the baths continued W beyond room 9, and the W wall of room 10 S beyond its SW corner suggesting that the baths were at least partially built together with structures of the western neighbor(s). It is possible, but must remain entirely hypothetical, that the patron of the baths bought and built two lots and lived in the house next to the baths[27].

14 The topography of the lot can be partially reconstructed from walls excavated to the foundation level (Tab. Suppl. 2). Most walls were built directly on or into grey ash, and only a few on artificial fills[28]. Looking at the northern row of rooms, a pre-phase I block wall in R3 was founded at c. 25.60 MASL, the W wall of room 10 at 25.42 MASL, but on top of a thick foundation of earth mortar (80 cm high), the walls and hypocaust channel walls of room 11 at 24.10 MASL, and the walls of room 7 at 23.60 MASL. This suggests that grey ash levels sloped from W to E. But the situation is less clear in the S because the NW and SE walls of the laconicum 6 were built at 23.69–23.80 MASL, while the SW corner was founded at 24.31–24.53 MASL. Here, some of the walls were built against grey ash suggesting that a trench had been cut into this level and filled on one side after constructing the wall. Earlier structures and the construction of a cistern/cisterns for the baths also had an impact on the orography of the grey ash deposits.

15 Once the outer limits had been defined with long walls that each included only one door in the N, E, and S façades, the lot was subdivided into two areas in NS-direction and three areas in EW-direction. The massive S wall of rooms 11, 12, 4, and 3 defines the northern series of rooms that include the main bathing rooms, while the southern part consists of the service section and additional bathing rooms for the men. Long NS-running walls define the eastern band, the largest and most regular that comprises all rooms of the men's section (1–6, 19–21); the central narrow regular band separates the men's and women's section and includes mostly secondary and service rooms (7, schola labri of 4, 12, 16, eastern part of 18); and the western rather irregular band comprises the women's bathing rooms and service rooms. Within this grid, all main walls were constructed with widths of 55–60 cm while the secondary walls were 35–40 cm wide and not always bonded with the N and E façades[29] and main walls.

16 Since the walls of the baths were all razed to 1–1.20 m above the floors of the baths (Fig. 5), there is no evidence of niches, windows, and roofs. Typological comparisons, esp. with the nearby Stabian Baths, suggest that at least some of the bathing rooms, if not all, were provided with niches[30], and that the main bathing rooms had barrel vaults and the laconicum a conical dome with a wooden framework; other rooms may have been covered with single sloped tiled roofs.

17 Small windows were commonly included in the lunettes of vaults and the vaults themselves. While the barrel vaults of the Stabian Baths were made of opus caementitium, a different (simpler) technique with arches (made of terracotta or stone bars) and curved tiles or with vaulting tubes may have been used here[31]. But no traces of any roofing system survived, either because Maiuri removed all evidence when excavating the fill of the bathing rooms below the levels of phases 3–5 or because the debris

27 To potentially reconstruct the original design of the western neighbor(s) further excavation would be required, e. g., in R3 of the baths (Fig. 2) and rooms g, h–l, and r of the Casa delle Pareti Rosse; rooms are numbered following PPM VII, 619. This is planned within the frame of the above-mentioned new project, see n. 16.

28 W wall of room 10; partition wall of rooms 13a/b; W wall of room 19.

29 The W façade was completely remodeled in phase 5, and the S façade is obscured by the rooms built in phases 3 and 4.

30 For this phenomenon, see Trümper et al. 2019, 125 n. 75.

31 Such vaults are preserved in Western Mediterranean baths of the second half of the 3rd and 2nd c BC, e. g. in Cabrera de Mar, Caulonia, Fregellae, Morgantina, and Solunto; Lancaster 2015a; Lancaster 2015b, 99–128. 153–158; Lancaster 2022.

of the half-destroyed baths was carefully sorted, and materials such as tiles and tubes were selected for reuse. The niches may have been built as part of the walls or, as in the Stabian Baths, framed with large tuff and travertine blocks which would have been easy to reuse. Some roughly worked tuff blocks were used as column bases of the garden peristyle (phase 3)[32] and could come from the dismantled upper parts of the baths.

18 The only indication for the presence of niches and the type of roof/vault is the width of walls (Tab. Suppl. 4). In the Stabian Baths, all bathing rooms were originally provided with niches, presumably on 3–4 walls of the rooms. Thus, some partition walls included two rows of niches (in two different rooms) and supported two barrel vaults made of opus caementitium. These walls are 72–91 cm wide, for spans of 5–7.30 m, but other walls of the bathing rooms are even up to 100 cm wide. In the Republican Baths, the corresponding partition walls are only 52–54 cm wide, but the rooms had smaller widths of 3.70–4.70 m. The comparison with baths that used simpler vaulting techniques show that walls were on average 55–65 cm wide for spans of 5–7.50 m, but the additional presence of niches can only be confirmed for one example the walls of which are preserved high enough (Cabrera de Mar). The numbers suggest that the bathing rooms of the Republican Baths were most likely vaulted with a simpler vaulting technique, and the women's apodyterium and tepidarium (rooms 9 and 10) with their conspicuously thin W wall may even have been covered with something like a hanging vault of plastered reed.

19 Three different types of permanent waterproof floors were used in the baths, and their levels are important for reconstructing the circulation pattern and flow of direction of water or drainage system (Tab. Suppl. 1). The first and predominant are concrete floors based on terracotta aggregate which, for brevity, is called opus signinum here[33]. Two different sub-types or ›qualities‹ can be identified that allow to reconstruct a hierarchy of rooms: a) floors decorated with irregular white limestone pieces spread in an arbitrary manner (room 3; pool of room 4; rooms 5, 8, 9, 10, 11), referred to as simply decorated opus signinum (e. g., Figs. Suppl. 10. 11. 13. 22); b) floors decorated with square white limestone tesserae organized in patterns, either lozenges or scales (rooms 1, 2) (Figs. Suppl. 3. 5. 7). The second type is a concrete floor based on lava with large terracotta pieces that was only used in a channel and niche in room 19 (Figs. 54. 58). The third type is a mosaic floor made of large irregular white and black limestone pieces that decorated the men's caldarium (Figs. Suppl. 13. 14. 15. 16. 17).

20 Very little evidence of wall decoration survives that does not allow to securely classify the decoration in terms of known Pompeian Styles. Some colored parts at the bottom of walls remain that may have belonged to socles of unknown heights (red, yellow) (Figs. Suppl. 8. 12). Simple white fine plaster without any decoration survives in several cases, for example, on the men's labrum and walls of the men's caldarium as well as the women's entrance corridor (Fig. Suppl. 15). Light pink waterproof plaster was used to cover the pools and benches, and the (bottom of the?) walls of the women's bathing rooms (e. g., Figs. Suppl. 28. 29). The travertine door jambs were highlighted with white plaster (Fig. Suppl. 8), while the walls of the men's caldarium show only white plaster, without any imitation of masonry (incised, painted or in relief) or other decoration. The opening of the schola labri was framed by a pair of thin pilasters rendered slightly in relief (Fig. Suppl. 17).

32 Trümper 2020a, 160 fig. 6; 165 fig. 13.

33 https://tess.beniculturali.unipd.it/web/terminologia-e-definizioni/ (last accessed 2024/08/07) uses cementizio with specification of the primary aggregate used for pavements that have long been identified as opus signinum or cocciopesto. The terminology is less clear in other languages (e. g., concrete, mortar, or cement floors in English and Mörtel, Beton, Zement in German), however. To avoid the lengthy detailed mention of aggregates for each floor, the term opus signinum is maintained here.

21 Since there is no evidence that the decoration of the walls of the baths was renewed, it must be assigned to the construction period after 130/120 BC when First Style decorations were popular in Pompeii[34]. But none of the scanty traces of decoration can be securely attributed to the First Style that is characterized by the rich polychrome imitation of masonry, rendered in relief. Instead, the wall decorations of the Republican Baths most likely represented a simpler decoration scheme that was also used in local houses to adorn modest rooms[35]. Thus, distinct decoration schemes were available to express hierarchies in the Late Samnite town, suggesting that the rooms of the Republican Baths were marked as functional by an average decoration.

22 The only exception in the spectrum of wall decorations seems to be a bright yellow socle with colored spots (to imitate marble) found in rooms R4, R6, and R (Fig. 2) which had always been attributed to the original decoration (Figs. 25. 27; Fig. Suppl. 33). Since this covers an earlier pinkish hydraulic plaster, it can now be assigned to the remodeling in phase 3, however, when it adorned a large room of the garden peristyle section of the Casa della Calce[36]. This type of marble imitation is, indeed, typical of Second Style decorations, and other Second Style decorations in R2 and R34 confirm that the rooms were completely redecorated when the garden peristyle was built[37].

Assessment of Rooms

Room 1

23 This is the vestibule of the men's section, with a size of 4.15 m EW × 1.30 m NS. The N and S walls are razed to floor level, while the W wall is preserved in elevation (Fig. 6; Fig. Suppl. 3). The threshold of the entrance from the Via dei teatri is made of lava and shows cuttings for a double door (1.30 m). While the E façade was remodeled several times and the door blocked in phase 3, the bases of both door jambs, travertine blocks, and the lower part of the S jamb, travertine with white plaster, are still visible. The S wall preserves traces of a centrally placed door with a simple, significantly used travertine threshold without cuttings for a door (0.85 m wide) that was framed by travertine jambs of which the bases (45–48 cm wide) survive. The room was paved with opus signinum decorated with lozenges that extend, as a kind of entrance carpet, into corridor 5 (Fig. Suppl. 3). Traces of a yellow plaster remain at the bottom of the S wall (Fig. Suppl. 4).

Room 2 – Area 25

24 This is the apodyterium of the men's section, with a size of 10 m EW × 4.90 m NS. Maiuri found large parts of this room, including its W wall, destroyed by a quarry pit. The N, E, and S walls are preserved in elevation.

25 Room 2 had a distributive function and provided access to the tepidarium 3, the laconicum 6, and via corridor 5 to the palaestra 19. The doors to rooms 3 and 6 were marked with large protruding travertine blocks, reveted with white plaster. The threshold to room 3 is slightly curved and decorated with opus signinum with lozenges (1 m wide) (Fig. Suppl. 5); that to room 5 is decorated with an opus signinum carpet with

34 Unless the decoration was renewed during the baths' use period of about 100 years in such a way that it left no identifiable traces in the archaeological record.

35 D'Auria 2020, 272–280: she calls this »pitture a schema semplice« or »stile a zone«. For the debated terminology of these decoration schemes, Lappi 2020, 7–11.

36 See below, room 9 and room 10.

37 Trümper 2020a, 164–167.

irregularly spread tesserae (95 cm wide) (Fig. Suppl. 6); and that to room 6 is not preserved (95 cm wide).

26 The opus signinum pavement is only preserved in the E part for a maximum of 4 m EW (Fig. Suppl. 7). It includes panels with lozenges surrounded by bands with a scale motif. The panels most likely served to differentiate spaces and to visually guide circulation, but the system cannot be securely reconstructed: the lozenges may have decorated a large central field that extended to the E wall and the bands of scales may have marked a space in front of benches. Apodyteria were commonly provided with benches, and room 2 may have been provided with benches in its destroyed W part, along the N, W, and S walls. Remains of a red plaster are visible at the bottom of the N wall, next to the door to room 3 (Fig. Suppl. 8).

27 A wide, flat channel was inserted into the opus signinum and ran from the E of the door to corridor 5, for a length of 2.20 m and in a distance of 0.40 m from the S wall. It ended in a settling basin (40 × 40 × 40 cm) in the SE corner which was, in turn, connected via a terracotta pipe to a drainage channel in the street (Fig. Suppl. 9). Two drainage holes are visible in the N wall, right at the SW corner of room 3.

28 The trench **Area 25** was made at the very edge of the surviving opus signinum floor to provide dating material for the N wall and floor of this room. A very narrow stretch (c. 0.40 m EW) of undisturbed stratigraphy was found below the floor (Figs. 12. 13. 14).

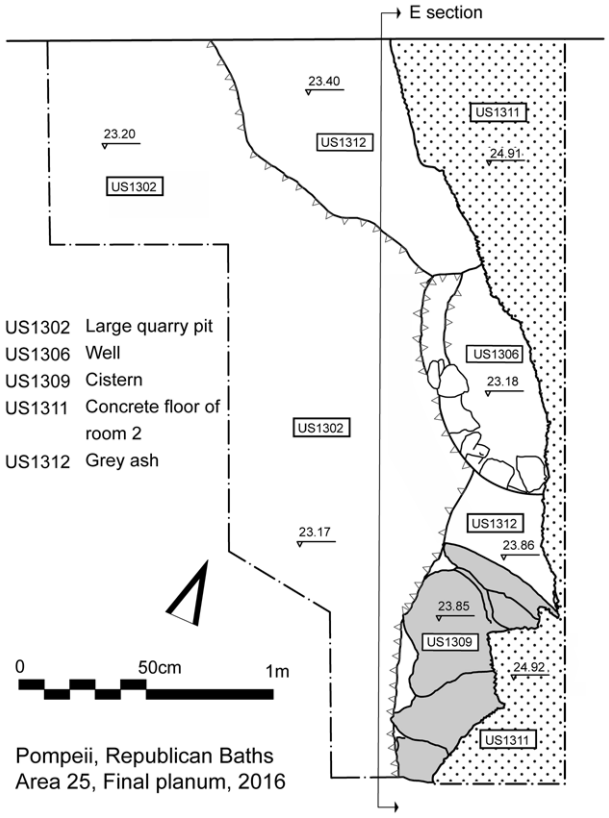

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Fig. 12: Area 25, final planum, 2016 (scale 1 : 30)

- At the bottom of the trench, a sequence of a Bronze Age paleosol (US1313), grey ash (US1312), and paleosol developed from grey ash (US1314) were found. On top of this was a dump of wood ash (US1308) with finds providing a tpq of the 7th c BC, met at the level of 24.72 MASL.
- All of these layers were cut for the construction of the well US1306, found filled with US1310 and US1307 (both without diagnostic finds), and a small bottle-shaped cistern US1309. The western part and border of both features was cut off so that their size could not be determined. Since the two features were not connected, their chronological relationship must remain open. Of the cistern, the plaster lining and a plastered pappamonte block of the mouth survived. The bottom of the well was not reached at 23.18 MASL. The well shaft was at least 0.90 m in diameter and the top 1.70 m were lined with an un-mortared travertine rubble.
- The fill of the well was in turn cut by the foundation trench US1303 for the N wall of room 2, the fill of which (US1304/1305/1316) included material providing a tpq of the 4th/3rd c BC. The wall was built directly on the grey ash US1312, at 23.40 MASL
- The fills of the construction trench and the well were covered by US1315 (no diagnostic finds) which served as leveling layer for the mortar pavement US1311.
- All features and strata were cut by the large quarry pit US1302 that was filled with US1301, including material with a tpq of the early Augustan period.

29 The construction of the N wall of room 2 can be securely attributed to phase 1, but the stratigraphy provides only a very broad tpq of the 4th/3rd c BC. The quarry pit US1302 provides a taq for the abandonment of the baths and could have been made in phase 3 or later, being located in the open area of the garden peristyle.

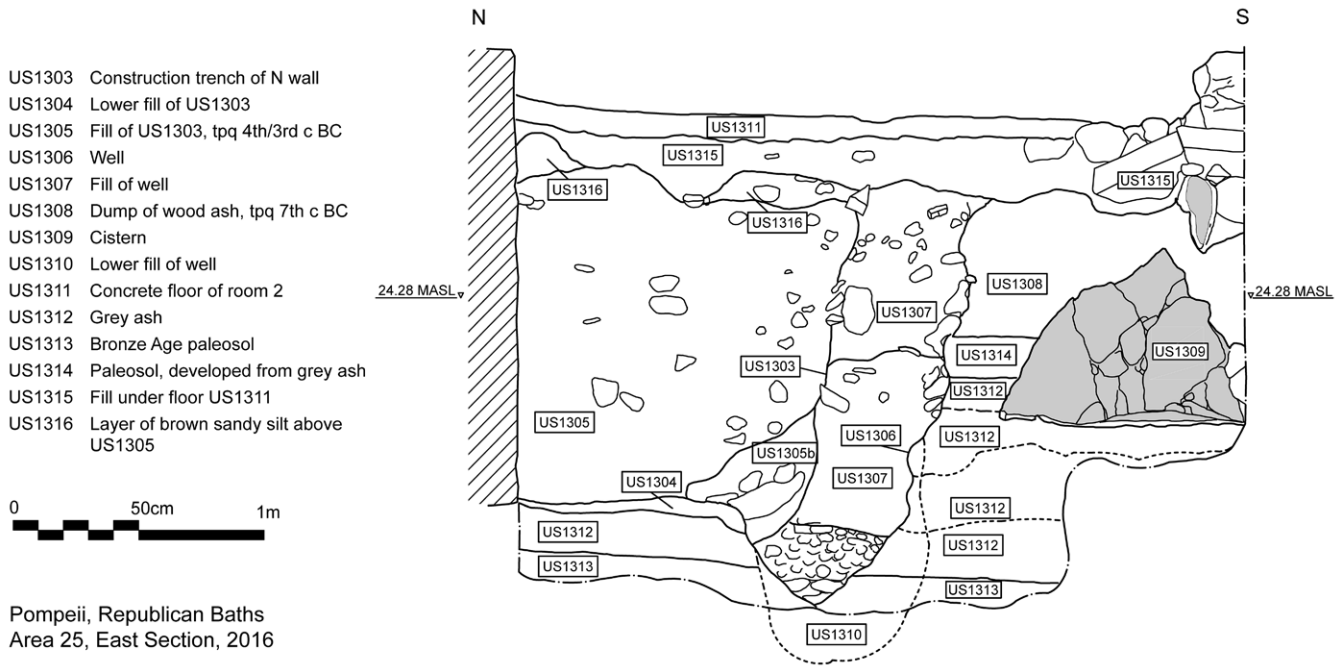

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Fig. 13: Area 25, E section, 2016 (scale 1 : 30)

Fig. 14: Area 25, E section, from W, 2016

Room 3

30 This is the tepidarium of the men's section, with a size of 4.70 m EW × 10.60 m NS (Figs. Suppl. 10. 11). While the W wall was razed to floor level, all other walls are preserved in elevation. The centrally placed door to room 4 is similarly made as the door to room 2, but the opus signinum carpet is decorated here with densely set white limestone pieces (0.95 m wide). The simply decorated opus signinum pavement is preserved in the entire room, while traces of a red plaster remain only at the bottom of the W wall (in R15, Fig. Suppl. 12). The room was provided with a fully preserved bench along the E wall and a bench razed to floor level along the N part of the W wall. Two drainage holes remain in the W wall to the S of the door to room 4, which correspond with two similar holes in the SW corner of the room.

Room 4

31 This is the caldarium of the men's section which had a T-shaped design, with a size of 4.70 m EW × 11.10 m NS for the main room and 3 m EW × 4.35 m NS for the schola labri (Figs. Suppl. 13. 14. 15. 16. 17). The room was provided with a hypocaust floor, a collective heated immersion pool in the S, a massive labrum socle in the exedra-like schola labri on the W side, and a freestanding bench in the N part. Except for the razed partition wall with room 3, all walls are preserved in elevation.

32 The threshold between rooms 3 and 4 is again slightly curved and decorated with opus signinum and large irregularly spread limestone pieces (1 m wide) (Fig. Suppl. 14). The room is decorated with the above-mentioned simple mosaic: while black and white pieces are visible in the entire room, black bands were used along the walls, in the opening between the main room and the schola labri, and around the freestanding bench and the labrum socle, thus to visually mark specific features. The schola labri was further singled out by two black palmettes in the NE and NW corners (Fig. Suppl. 16). This type of simple mosaic with irregular pieces and its organization in parallel bands finds comparisons in Pompeii and various South Italian sites, in buildings dated to the second half of the 3rd c BC and 2nd c BC[38]. A hole in the pavement in R12 (Area 13) allows studying the build-up of this floor (Fig. Suppl. 18 a). Four different layers are visible above the roof tiles that cover the hypocaust channels (see below): one light grey concrete layer that fills the roof tiles (4 cm) and serves as a thin leveling layer (2 cm); one dark grey coarse concrete layer with lots of lava (6 cm); one coarse concrete layer with large pieces of terracotta (8 cm); and the mosaic pieces (2.5 cm). In contrast, the floor of the pool shows four different layers (Fig. Suppl. 18 b): a very thin layer of mortar with lots of lava (2.5 cm), a thick concrete layer with terracotta pieces (4 cm), another lava mortar (4 cm) and terracotta concrete (4 cm) layer. The two upper layers in the pool certainly belong to a repair phase because they are set against calcareous concretions on the walls of the pool. However, the four layers in the room belong to one single phase because none of the three lower, coarsely made layers could have functioned as a finished floor[39]. The concrete floor of the women's pool was continuous with the floor of the room, and the entrance steps were simply built on top of this pavement. A similar situation would be expected if the men's caldarium had originally been decorated with a simple concrete floor, but none of the four layers of the room's floor make-up resembles those of the pool floor. Furthermore, when the labrum socle was enlarged in a second phase (see below), it was built over the black mosaic band, suggesting that the mosaic belongs to phase 1.

33 The room was decorated with fine white plaster which was well preserved in 1950[40] and is today visible on the S wall of the schola labri; only scanty traces remain of the above-mentioned thin pilasters that were rendered in relief and framed the opening of the schola labri (Figs. Suppl. 15. 17).

34 The labrum socle was originally a circular opus incertum wall with an external diameter of 1.60 m; this was connected to a pilaster of travertine blocks on the W wall which goes down to the bottom of the hypocaust system (Fig. Suppl. 15). All elements were covered with fine white plaster. The socle was later encased with another circular finely plastered opus incertum wall which partially covers the black band of the mosaic and has an external diameter of 2.30 m. Two limestone fragments of a flat basin were found in 2015 in R11, one of them with remains of the rim; another fragment with

38 For example, the Casa del Drago and terme di Nannon in Caulonia; the Protocasa del Centauro and the Casa dei Mosaici Greci (VIII.2.14–16) in Pompeii; Pesando 2012, 540 fig. 7; Iannelli 2014; Zanella 2014, fig. 6; Cuteri et al. 2017; Iannelli et al. 2021, 677 fig. 9.

39 Contra Pesando 2002/2003, 236 who identified the layer immediately above the tiles as remains of an earlier simpler floor.

40 Maiuri 1950, 16 fig. 3.

rim was found in Area 12, reused in a fill (US1402) for raising the floor level in phases 3 and 4 (Fig. Suppl. 19). All three have thick layers of calcareous concretions, showing that water was standing in the basin for longer periods. The fragments are too small to securely reconstruct the diameter of the basin which should have been about 1.60 m and 2.30 m, respectively, or larger. While the labrum socle was enlarged, it is questionable whether the basin was renewed as well because it may not have fit through the doors: for comparison, the fully preserved doors in the bathing rooms of the Stabian Baths are 1.80–2.00 m high[41]. Alternatively, the socle may have been enlarged to better support the originally protruding parts of the basin that may have been in danger of breaking. The labrum basin of the women's apodyterium in the Stabian Baths was repaired in antiquity showing that these basins were costly and susceptible to breaking.

35 A bench of 2.45 m EW × 0.70 m NS was built in the N part of the main room, 1.10 m from the N wall. It is entirely razed to the floor level, but the band of black limestone pieces that framed the bench survives (Fig. Suppl. 13).

36 The pool of 4.40 m EW × 1.45 m NS was provided with three entrance steps and supported by nine arches made with brick voussoirs that were covered with reused roof tiles (Figs. Suppl. 20. 21); the pool was reveted with a simply decorated opus signinum floor and hydraulic plaster, both of which were covered with calcareous concretions (Fig. Suppl. 18 b). The floor was once renewed with opus signinum (see above) which was in turn covered by concretions. The pool could be drained through a centrally placed channel, which housed a lead pipe; a chimney is preserved in the E wall.

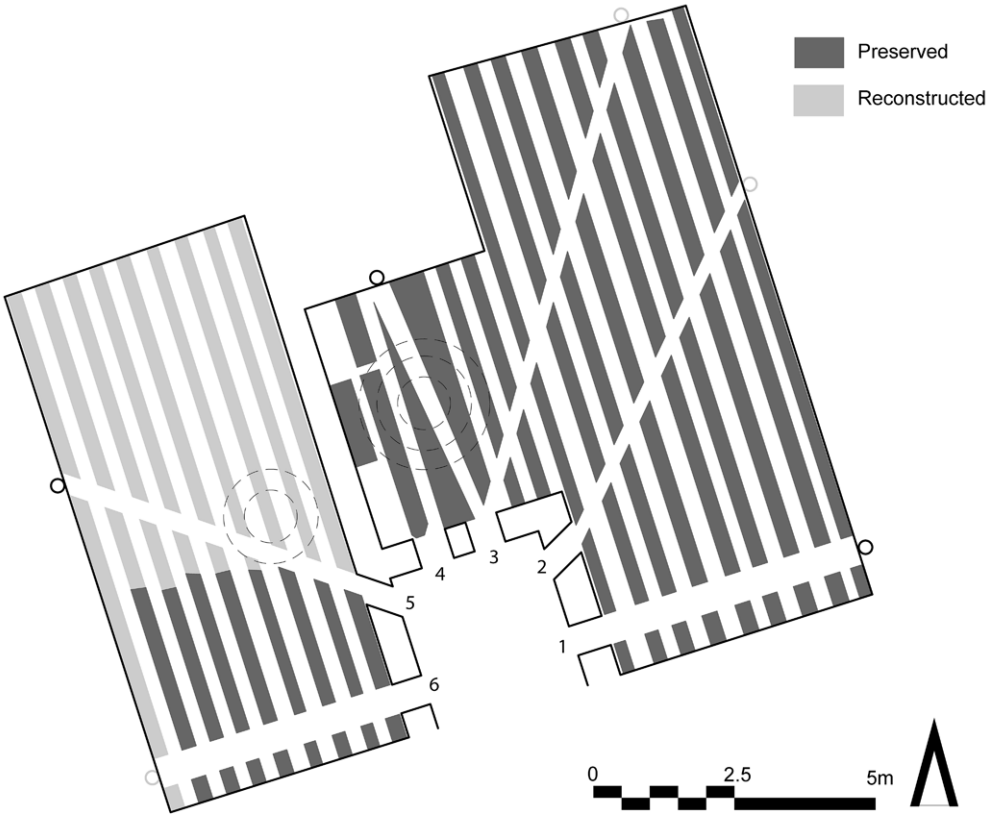
37 The hypocaust system of the room comprised eight NS-running and two oblique channels under the main room, one EW-running channel under the pool, three strictly NS-running and two largely NS-running channels under the schola labri that end in the same chimney (Fig. 15). The channels are 23–25 cm wide, 60 cm high, and separated by opus incertum walls of c. 30 cm width. The walls were plastered and rest on a compact fill of unknown depth which was partially excavated in 2016 (Area 13, US2001) but did not include any diagnostic finds. The channels departing from arches in the praefurnium (see below) ended in chimneys, of which those of the pool and the schola labri are well preserved.

38 This was the largest, best decorated, and most important room of the entire bath building. Particular care was taken to operate, furnish, and maintain it. The distribution of heating channels and the build-up of the floor suggest that the pool was heated the best, and the schola labri the least. Cold water from the labrum would have spilled and run over the floor so that heating this area was not particularly useful and necessary. The main room was probably comfortably warm. Changes included the renewal of the pool floor, the enlargement of the labrum socle, and possibly a new drainage hole to room 3. While these cannot be securely dated and linked, it seems likely that they belonged to the same remodeling program.

Room 5

39 This is a narrow corridor to the »palaestra« of the men's section, with a size of 0.90 m EW × 4.20 m NS (Fig. Suppl. 22). The W wall is barely preserved in elevation, while the original E wall was razed to floor level; the currently visible E wall was built in phase 3, 23 cm to the E of the original E wall, to support the stylobate of the garden peristyle. While the corridor continued without a door from room 19 to room 2, a cesura was visibly marked in the opus signinum pavement: the simply decorated floor of the corridor was interrupted by a carpet decorated with lozenges in the continuation of

41 Eschebach 1979, 15 f.: e. g., NW and NE doors of the women's apodyterium, belonging to phase 1 (after 130/120 to 80 BC); door between women's caldarium and tepidarium which was even rebuilt after AD 62.



Pompeii, Republican Baths, reconstruction of the hypocaust system

15

Fig. 15: Reconstructed plan of heating channels under rooms 4 and 11

vestibule 1 and then another carpet with densely set tesserae in the opening to room 2 (Figs. Suppl. 3. 6). The door to 19 was framed by an upright travertine block in the E and the SW corner of the laconicum 6 in the W. Simple white plaster is preserved at the bottom of the razed E wall.

Room 6 – Areas I/II,1/II,2

40 The room has a diameter of 5.50 m and is provided with a door in the NE corner and a semi-circular niche (1.30 m × 0.90 m) in the NW corner. Maiuri interpreted this room as a frigidarium and dug deep down to find evidence of the water management and a basin (Fig. 2). Pesando identified room 6 as a laconicum, which is confirmed by typological comparisons[42] and excavation. Maiuri had revealed the upper part of a well and a channel which presumably led from the center to an opening in the S wall[43].

41 The southern part of the room was excavated in 2015 and the NW corner in 2016, going down to the foundation of the walls and grey ash levels (Figs. 7. 16. 17. 18. 19. 20. 21; Figs. Suppl. 23. 24. 25. 26. 27). A trench of 1 × 1 m was made in the S part to explore the prehistoric levels below the grey ash which is not discussed here.

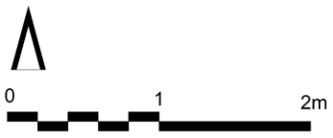
- The earliest feature is a small tank lined with plaster (US513) which was cut by the circular well made of rubble walls found by Maiuri. The fill of the tank (US516) provides a tpq of the 2nd c BC, while the lower fill of the well (US528), excavated to 22.66 MASL, contained a sherd dated to the 1st c BC. In

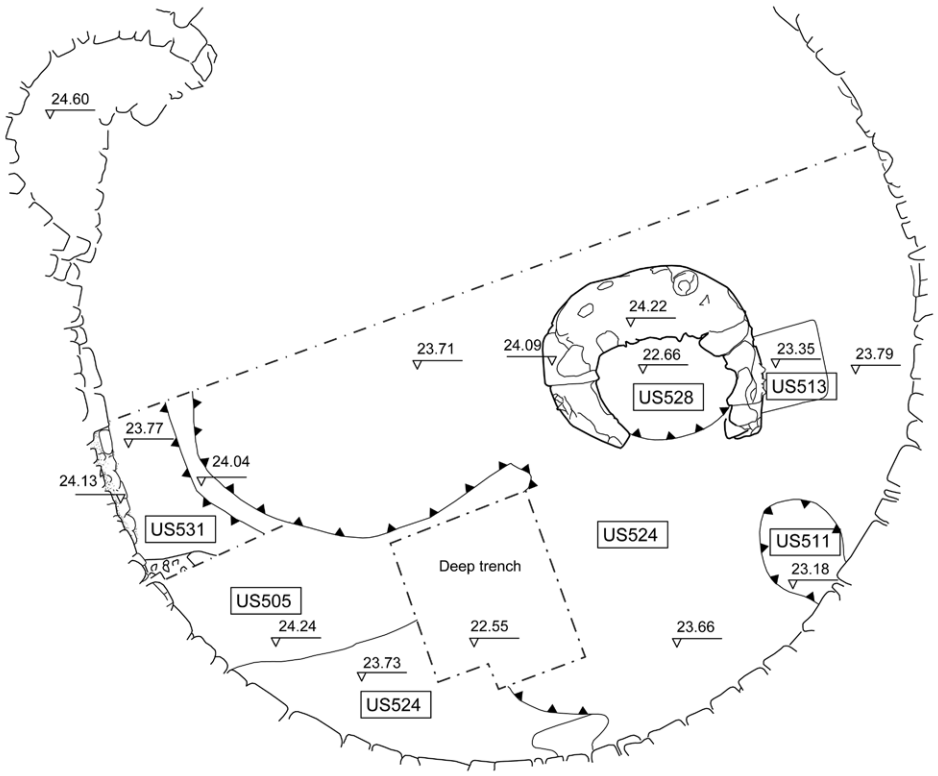
42 Pesando 2002/2003, 233–235; Trümper 2008, 225–274.

43 Maiuri 1950, 120.

US505 Yellow ashy level
US511 Pit with grey fill US512, tpq 175 BC
US513 Tank with fill US516, tpq 2nd c BC
US524 Construction level, extends under wall
US528 Lower fill of well, tpq 1st c BC
US531 Fill of construction trench, tpq 225 BC

Pompeii, Republican Baths
Area II,1, Final planum, 2015

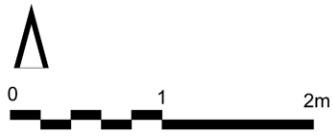




16

US502 Fill of large quarry pit
US505 Yellow ashy level
US508 Grey fill of pit, tpq 225 BC
US510 Grey level
US511 Pit with grey fill US512, tpq 175 BC
US513 Tank with fill US516, tpq 2nd c BC
US514 Upper fill of well
US517 Fill below floor level along W wall, tpq 130/120 BC
US518 Fill with plaster fragments, underneath S wall, tpq 200 BC
US519 Fill of pit, tpq 225 BC
US524 Construction level, extends under wall

Pompeii, Republican Baths
Area II,1, Planum 3, 2015



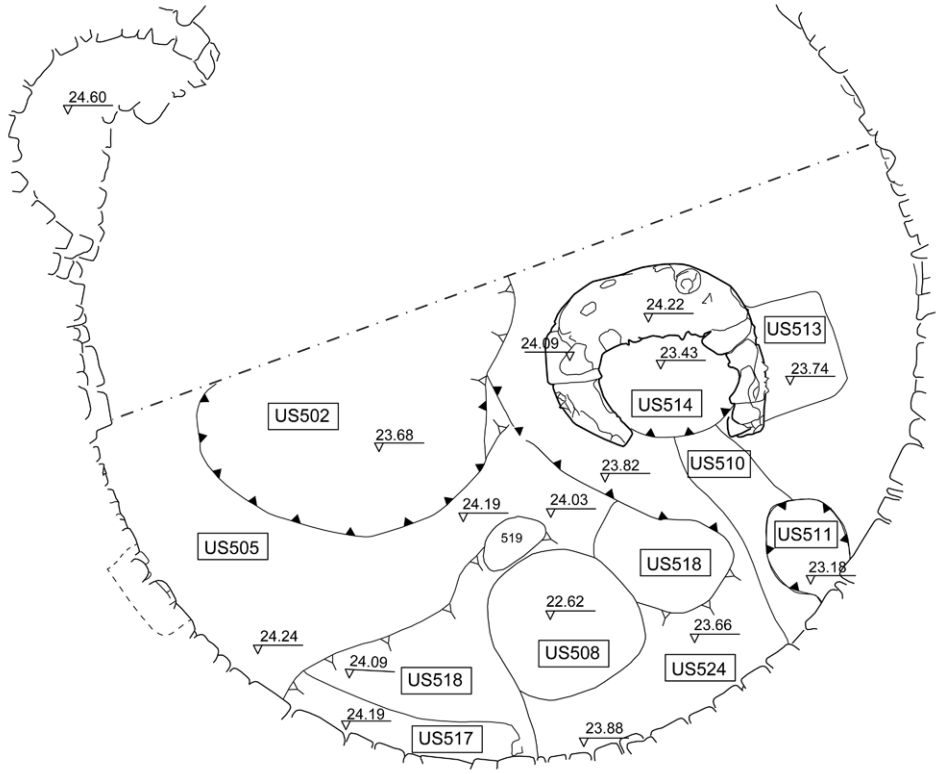


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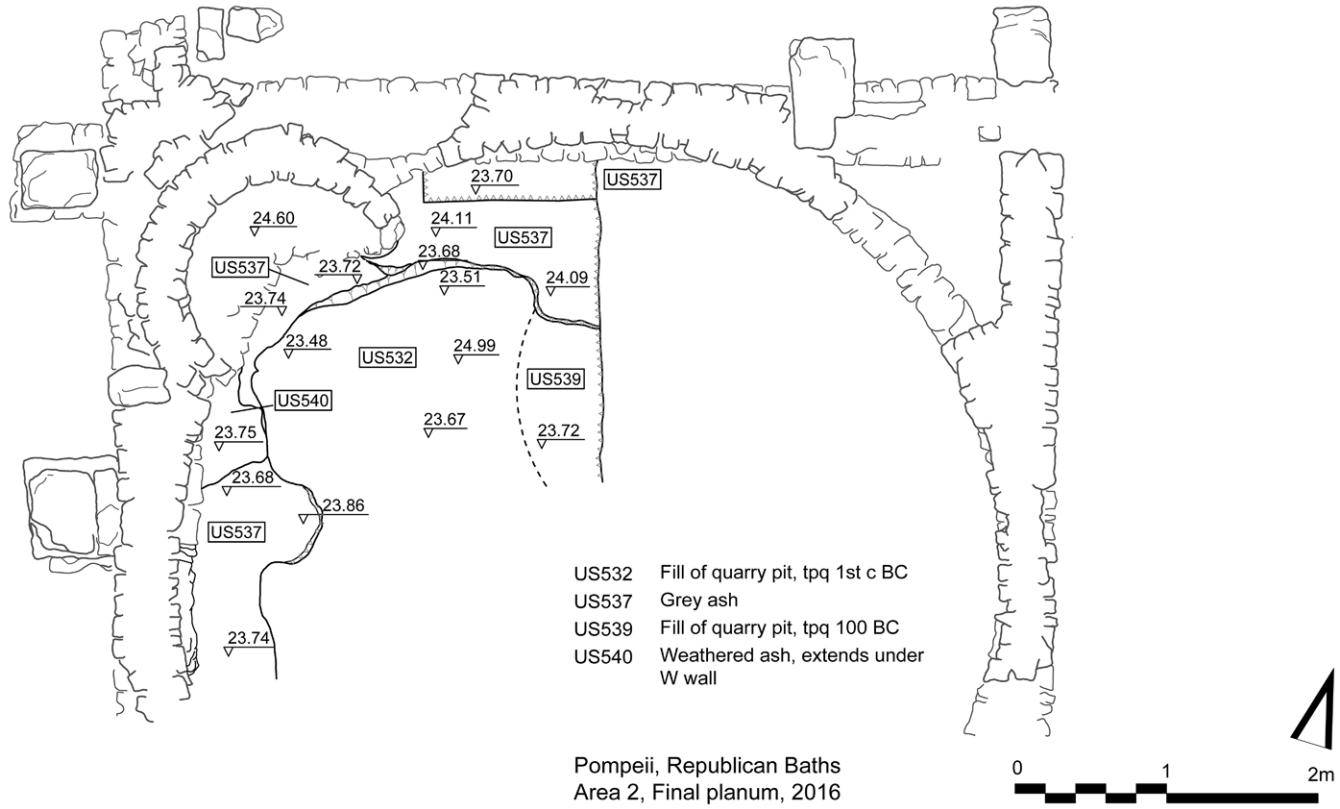
Fig. 16: Area II, 1, final planum, 2015 (scale 1 : 50)

Fig. 17: Area II, 1, planum 3, 2015 (scale 1 : 50)



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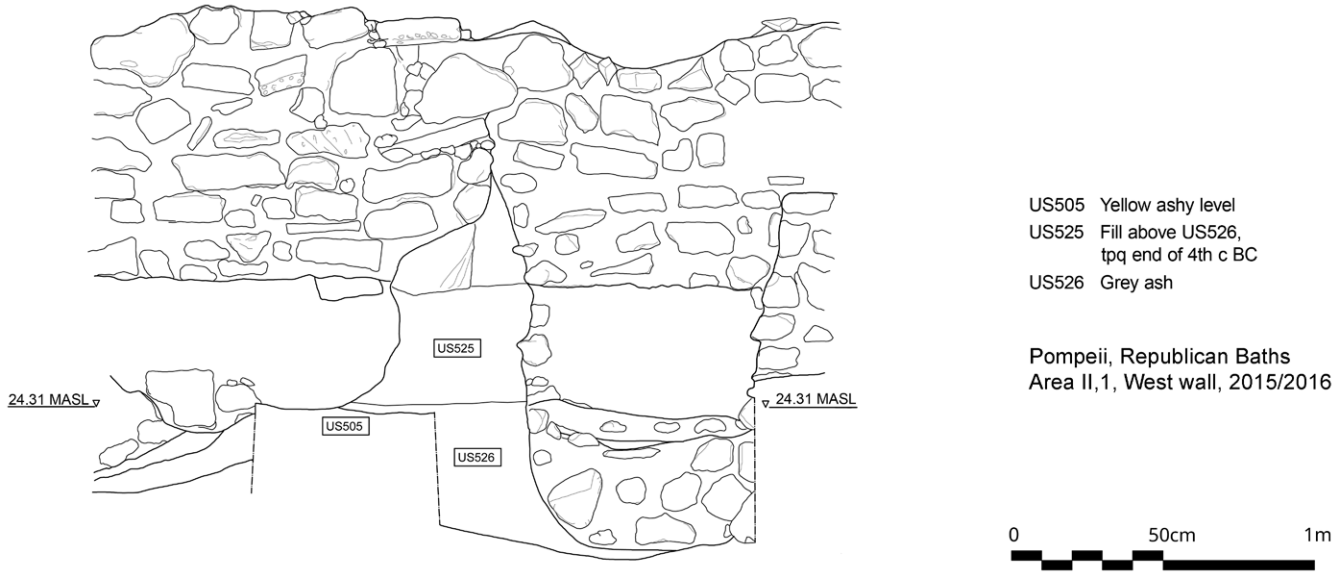

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Fig. 18: Area 2, final planum, 2016 (scale 1 : 50)

Fig. 19: Area II, 1, W wall, 2015/2016 (scale 1 : 25)

20

Fig. 20: Area II,1, view from E, 2015

both cases, the fills were most likely disturbed by a later quarry pit, which cut into the tank and the well at depth.

- The walls of the laconicum were partially constructed directly on grey ash (US526, US537), partially on hard-packed leveling or construction layers (US518, US524, US540) and a pit (US511) that had been dug into the grey ash. A construction trench (US531) was identified along the straight part of the W wall, located to the north of the channel US38 found in Area I. The latest tpq provided by finds from these layers and the fills of the construction trench and pit (US512) is 175 BC (Figs. 16. 17). The N and W walls were founded at c. 23.75–23.86 MASL and their lower parts were built straight in the interior of the laconicum because these walls defined rectangular rooms (R25, R29). The round part of the wall under the niche in the NW corner was only founded at 24.10 MASL on a fill (US536) with a tpq of 225 BC and set as a separate face against the rectangular walls (Fig. 21; Fig. Suppl. 25). The southern part of the W wall and the S wall were built entirely round in the interior, their foundation sloping from 24.31 MASL in the W to 23.69 MASL in the E (Figs. 20. 21). While foundation trenches must have been dug for the W and S walls, which were set on leveling layers, the N wall was built against the grey ash, presumably with a foundation trench along its N face.
- Fills must have been brought in which covered the grey ash, construction levels, tank, and well. Few traces of such fills were found in the SW corner, along the walls: US517, which included a coin minted after 130/120 BC, and on top of this US505, a yellow ashy level without diagnostic finds, met at 24.24 MASL (Fig. 17). No remains of a laconicum floor could be identified because the room was much disturbed by a large quarry pit (US502, US532, US539) and Maiuri's excavation. The floor must have been at c. 24.60 MASL, at level with the opus signinum floor of the NW niche, which is significantly lower than in the other bathing rooms (40 cm below the floor of room 2).
- At 24.24 MASL remains of a white mortar bed were found along the S wall and some sherds that may have belonged to a terracotta pipe (Figs. Suppl. 26. 27). The mortar was poured onto US505 and situated 8–10 cm below a centrally placed opening in the S wall (13 × 21 cm). These are the remains of the terracotta pipe described by D'Avino and Maiuri: »Si scopre invece nel settore sud del bacino una specie di condotto fatto di tubi cilindrici di terracotta rossastra inseriti l'uno nell'altro e legati con malta in un letto di calcina imposta al di sopra di uno strato di terreno di riporto la cui testata meridionale è inserita nel muro del *frigidarium*. È facile che sia un corsetto di espurgo del *frigidarium*«[44]. The pipe could not have been emptied into an opus signinum channel found in R36/R37 (see below) because it was located at a significantly lower level (24.34–24.47 MASL vs. 24.85 MASL). How far the pipe extended N and to what kind of (centrally placed?) structure it was connected to could not

44 D'Avino 1950, 143; Giornale 1950, 17; cf. Maiuri 1950, 120.

21 Fig. 21: Area 2, view from S, 2016

be determined because the area to the W of the earlier well was disturbed by the later quarry pit (US502).

Although the stratigraphy suggests that the installation belonged to the laconicum, the scanty remains prevent a determination of its function. Centrally placed heating facilities were common in laconica, though rarely preserved, and were not connected to drainage pipes, as water was either not used at all or was not used abundantly in sweat rooms[45]. Running 15–25 cm below floor level, the pipe may have been conceived to remove humidity from the room, similar to the equally strange amphora installation in R36 (see below).

- The niche was built in the NW corner, with its N wall strangely protruding into the room. It was founded on a solid construction level of hard soil and mortar (US535) that was also found in front of the niche going down to the grey ash (US537) (Figs. 18. 21; Fig. Suppl. 25). The finds from US535, providing a tpq of the 4th/3rd c BC, and the much-disturbed stratigraphy do not allow for securely dating the niche to phase 1 or 2 of the baths. Only the awkward insertion suggests that the niche was added later; at this point, the original floor levels in the NW corner must have been removed down to the grey ash US537.
- After the abandonment of the baths, one large quarry pit or several such pits were dug in the room. While finds from the fills (US502, 532, 539) date to 100 BC and the 1st c BC, the pit(s) may have been dug in any of the phases 3–5.

42 The walls of the laconicum and some of the interior fill levels (US505, US517) can be assigned to phase 1 of the baths, the finds from US517 providing a tpq of 130/120 BC. An oblique ramp must have led from the apodyterium down into the room, negotiating at least 40 cm difference in levels. The room was decorated with simple white plaster, of which significant traces survived, and presumably an earth floor at 24.60 MASL or lower. A pipe of unknown provenance and function was installed under this floor and may have been connected with some centrally placed heating installation. All of these features are typical of laconica that were built in the entire Mediterranean in gymnasia, public baths, and private domestic baths from the 2nd c BC on. While the

45 Trümper 2008, 263–268. The large laconicum found in 2021 in the Stabian Baths also included a central feature for heating, but no drainage system; Trümper et al. 2022, 198 f.; Trümper et al. 2024, 5 fig. 9.

largest examples were found in gymnasia and the smallest in houses, the laconicum of the Republican Baths belongs to the largest examples built in public baths[46]. When laconica were included in baths with separate sections for women and men, only the men's section was provided with a sweat room. The distinct male connotation of laconica is confirmed by their integration into gymnasia and palaestrae, and their use may in general have been restricted to men[47].

43 That the large protruding NW niche was added in phase 2, is only suggested by architectural anomalies. A major remodeling program is confirmed by the addition of buttresses on the W wall (see below, room 16/ Area I), and this opportunity may have been grasped to modernize the sweat room. Such niches, usually inserted in all four corners, were only introduced in the late 2nd c BC[48]. The first securely dated examples in Pompeii were built after 80 BC, in the Stabian Baths and the Forum Baths. This is important because it might provide a tpq and reason for the remodeling of the Republican Baths (see below).

44 From phase 3 on, the room was located in the open area of the garden peristyle section but the quarry pit(s) went at least 1.90 m below the level of the garden: the razed walls of the laconicum were at c. 25.50 MASL, and the bottom of the pit(s) was not reached at 23.67 MASL. Since comparably large quarry pits were dug in R4, R6, and R9 certainly after AD 62, the pit(s) in the laconicum may also go back to phase 5.

Room 7

45 The entrance room of the women's section, with a size of 2.75 m EW × 2.75 m NS, had already been excavated by Maiuri to its very deep foundations at 23.60 MASL. Therefore, it was not cleaned or excavated in 2015/2016. No traces of any decoration were found. While the threshold of the door (1.10 m wide) from the vicolo is missing, the threshold to room 8 (1.10 m) was decorated with opus signinum, without any sophisticated carpet pattern (Figs. Suppl. 28. 29). The room may have served as the lodge of a porter who collected entrance fees before women could go to the bathing section proper. In theory, bathers could have entered the apodyterium 9 directly from the vicolo, but care was taken to install a suite of entrance rooms, even at the expense of the women's caldarium.

Room 8

46 This was the entrance corridor of the women's section, with a size of 4.50 m EW × 1.30 m NS, which is responsible for the fact that the women's caldarium is shorter than the men's equivalent (Figs. Suppl. 28. 29). The N and S walls are barely preserved in elevation, but the N travertine jamb of the door to room 9 (0.95 m wide) is preserved. Since the door was blocked in phase 3, the design of the threshold cannot be assessed. The corridor was equipped with a bench reveted with hydraulic plaster along the N wall; simply decorated opus signinum; and fine white plaster that is particularly well preserved behind the bench.

46 Trümper 2008, 225–274. 420–426 tab. 3.

47 Trümper et al. 2024.

48 The earliest known examples are in the laconicum of the baths at Norba, Trümper 2022, 285 f., and the small laconicum of the Agora of the Italians in Delos; Trümper 2008, 235–237.

Room 9 – Area 5

47 Maiuri identified rooms 9 and 10 as one single room with a size of 3.70–4.40 m EW × 12.90 m NS. This would have been the largest room of the baths, and would have served as a combined apodyterium/tepidarium for the women. Assessment of this room was hindered by floors and walls installed in phases 3–5 as well as a large quarry pit dug in the center of the room, presumably in phase 5. Maiuri revealed an EW-running wall (upper surface at 24.96 MASL) deep down in the center of the pit that is made of opus incertum with large lava pieces. While the wall abuts both the earth foundation of the W wall and the E wall, it is very likely (and indeed the more simple reading) that it served as a partition wall between two rooms with sizes of 3.70–4 m EW × 5.50 m NS and 4.10–4.40 m EW × 6.95 m NS, namely the women's apodyterium and tepidarium. The bad state of preservation of this room can be explained with the fact that it was razed in phase 3 and then further destroyed by the quarry pit in phase 5.

48 Thus, room 9 is identified as an apodyterium here, the W, N, E walls of which are preserved in elevation. When Maiuri excavated this area, R5 was bordered by a wall made of opus caementitium, founded on a fill at c. 25.00 MASL and preserved for c. 1 m height (Fig. 22). This wall was found collapsed when the project began in 2015. Therefore, the area to the N of the collapsed wall was explored to reconstruct the chronology of floors and other features. The terrain below the lowest concrete floor was cut back for 10–20 cm under the floor and excavated for a maximum depth of 90 cm (Figs. 22. 23. 24; Fig. Suppl. 30).

- A deposit of fuel ash mixed with thousands of carbonized olive stones (US2110) was excavated to a maximum depth of 60 cm, without reaching the lower limit. It included pottery, which provides a tpq of the 2nd c BC.
- The construction trench of the E wall (US2111) was cut into this and filled with US2112 that included material providing a tpq of the 4th/3rd c BC.
- A layer (US2109) on top of US2110 and US2112 that included material dated to the 2nd c BC served to raise the level below the concrete floor US2107. US2107 included a wide flat channel (US2113) along the E wall for draining water to the vicolo. Thick layers of calcareous concretions covered the bottom of the channel. Removing loose debris in the NE corner of R5 revealed the continuation of this channel and the remains of a bench along the N wall of room 9 (Fig. Suppl. 30).
- The floor US2107 was cut by the W wall of R5, and a number of layers were found on top of US2107 between the new W wall and the old E wall (Fig. Suppl. 31): an earth mortar (US2106); a fill with a tpq of the late 1st c BC (US2105); a thin mortar layer (US2104) that was continuous with plaster along the E and W walls and included material with a tpq of the 2nd c BC; another fill (US2103) with a tpq of the 2nd c BC; and finally, a new concrete floor (US2102).

49 Combining the investigation of R4 (that was only cleaned) and R5, the following sequence can be reconstructed (Fig. 25). The lowest floor in both rooms (US2107), the E wall of R5, and the W wall of R4 belonged to the original women's apodyterium that was provided with a simply decorated opus signinum floor, hydraulic plaster, a channel along the E wall, and a bench in the N; there may have been an additional bench along the W wall but this area is completed concealed by later features. The strata below the floor US2107 did not provide a very precise tpq for the construction. No evidence of remodeling could be identified.

50 In phase 3, the partition wall between R4 and R5 was built, cutting through the floor US2107. In R5, the level was raised for 85 cm and a new concrete floor (US2102) was made; the room was accessible from the S portico of the peristyle courtyard of the Casa della Calce, via a door in the NE corner the threshold of which is visible on Maiuri's photo (Fig. 22). A ramp was installed in corridor R4, leading from the S portico down

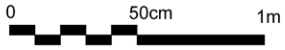
Fig. 22: Walls and floors in R4–6, room 9, 1950

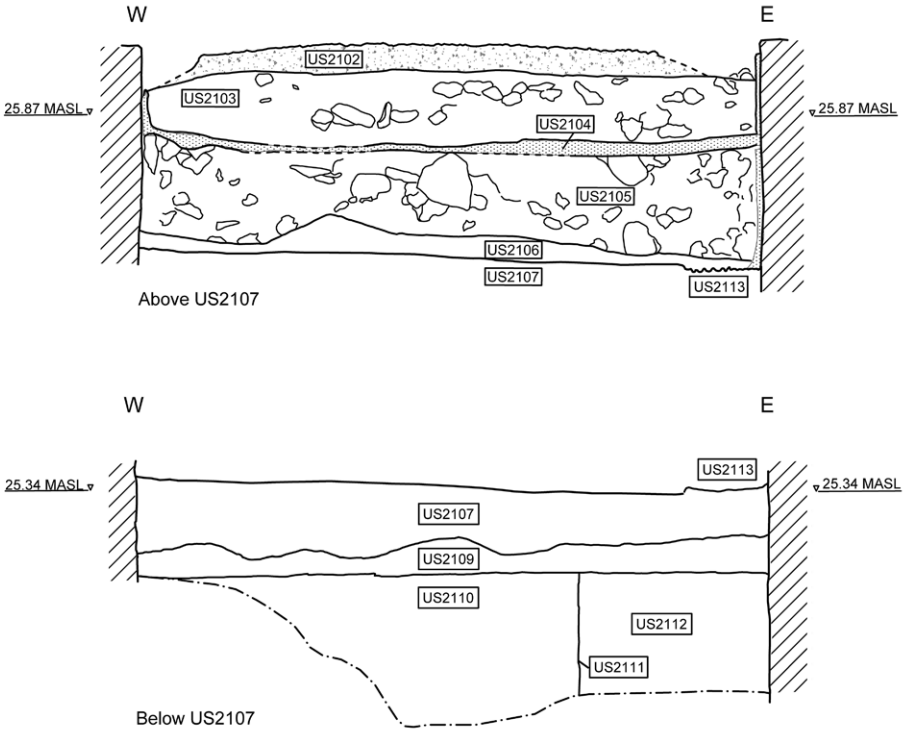
Fig. 23: Area 5, N section, 2016 (scale 1 : 30)

Fig. 24: Area 5, N section below US2107, 2016, from S

22

US2102 Concrete floor of R5
US2103 Fill under US2102, tpq 2nd c BC
US2104 Mortar layer, continuous with wall plaster, tpq 2nd c BC
US2105 Fill, tpq late 1st c BC
US2106 Earth mortar
US2107 Concrete floor of room 9
US2109 Fill under US2107, tpq 2nd c BC
US2110 Fuel ash with carbonized olive stones, contaminated
US2111 Construction trench of E wall
US2112 Fill of US2111, tpq 4th/3rd c BC
US2113 Channel with concretions





Pompeii, Republican Baths
Area 5, North Section, 2016

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24

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Fig. 25: R4 and R5, from S, 2015: traces of the yellow socle (Second Style) were still preserved in situ at the S end of the ramp

into R4/R6 in which the floor of the baths (US2107) was continuously used. The room was decorated with new plaster of which a yellow socle with marble imitation survived that is typical of Second Style decorations (Fig. 25). Along the W wall of R6, evidence of a bench is visible on the concrete floor; the bench was removed when the yellow plaster was installed. Since the yellow plaster was found along the W walls of R6 and R4 reaching up to the ramp in R4, the original S wall of the apodyterium was razed at this point so that the new room of the garden peristyle section had a size of 3.70–4.40 × 9 m[49]. The fill US2105 under the floor US2102 includes material dated to the late 1st c BC. While this only just overlaps with the common dating of Second Style decorations, the remodeling could have been carried out in a narrow window around or shortly after 30 BC.

51 In phase 4, corridor R4 and R6 received a new concrete floor (at c. 25.90–25.95 MASL), now at a similar level as US2102 (26.08 MASL) in R5, and new (simple white?) wall plaster.

Room 10 – Areas PR1/2

52 Maiuri had recognized that the room identified by him as V (apodyterium/tepidarium, Figs. Suppl. 36. 37) continued beyond the current S wall, which was built in phase 5. Therefore, he made two trenches in room R of the Casa delle Pareti Rosse, along the E wall and the western opening to find the S border of the room. Both trenches were reexcavated, but intact levels could only be explored in trench PR1 (Figs. 26. 27; Figs. Suppl. 34. 35). While the stratigraphy did not provide secure dates for the history of the baths, features revealed in both trenches can be assigned to phases 1 and 3–5 based on the relative chronology.

53 Removal of the backfill in PR2 allowed confirming the sequence reconstructed for R4–R6 (Fig. 27). The following structures were found: the S wall of the tepidarium, with three different layers of plaster: a) pinkish hydraulic, b) yellow with marble imitation, c) simple white; and three opus signinum floors at 25.47 MASL, 25.92 MASL, and 27.36 MASL, the lowest of which showed traces of a bench. The S wall, the lowest opus

49 Since rooms 9 and 10 had similar opus signinum floors they could easily be combined; the gap above the razed wall must have been filled, possibly even with a kind of threshold pavement to visually differentiate between anteroom, R4, and main room, R6.

Fig. 26: PR1 and Pr2, from NW, 2016

26

Fig. 27: PR2, from N, 2016

27

signinum floor, the hydraulic plaster, and the bench belong to phase 1. The removal of the bench and the yellow socle with marble imitation can be assigned to phase 3, and the second concrete floor with corresponding remains of white wall plaster to phase 4. In phase 5, the S wall was razed, all remains were covered by a massive fill, and the uppermost coarse concrete floor was made when the patrons of the Casa delle Pareti Rosse created room R at the expense of their neighbors' lot. A second EW running wall was found, 80 cm to S of the S wall of the baths, which may have existed for an unknown purpose in phases 1–4, but was also razed in phase 5.

54 In PR1, the W wall of room 10 was reexcavated and Maiuri's backfill removed for 0.70 m EW and 20 cm depth to the E of the wall (Fig. 26). The S wall of room 10 was discovered here, bonded with the W wall which continued further S (Fig. Suppl. 34).

The E face of the W wall and both faces of the S wall were decorated with simple white plaster which is similar to the phase 4 plaster found on the S wall in PR2.

55 To the W of the W wall, a trench of 3.10 m NS × 0.30–1.30 m EW and 1.80 m depth was made, going down to 25.58 MASL (Fig. Suppl. 35).

- At the bottom, an earth mortar (US1714) of 0.40 m EW was found next to the wall, on which the wall was built. This confirms the findings in R6 where a thick stratum of earth mortar (80 cm high, upper surface at 25.42 MASL) is preserved below the W wall (Fig. Suppl. 36).
- An EW running wall was also founded on US1714, but abuts the W wall of room 10.
- Several fills were found on top of US1714 but can currently not be correlated with the chronology of the baths, from bottom to top: US1713, providing a tpq of the 4th/3rd c BC; US1710–1712; US1705 with a tpq of 150 BC; US1703 with a tpq of 150 BC, and US1702 with a tpq of the 1st c BC.
- All layers and both walls were covered by the fill and floors of phase 5 (US1715).

56 In sum, the tepidarium can be reconstructed with a simply decorated opus signinum floor, hydraulic plaster (at the bottom of the wall), a bench along the W and S walls, and a door to room 11 (1 m wide) which was framed by travertine jambs and presumably paved with a (decorated?) opus signinum floor. A coin[50] was found in the concrete of the threshold that provides a tpq of the late 3rd c BC. No changes can be assigned to phase 2, and the later history is similar to that of room 9.

Room 11

57 Large parts of the room were destroyed by a quarry pit dug most likely in phase 5. This is already visible on the cork model (Fig. Suppl. 1) and was confirmed by Maiuri's excavation. A trench along the E wall in 2016 showed that the pit was backfilled after Maiuri's excavations with lots of lapilli (Fig. 28).

58 This is the caldarium of the women's section with a size of 4.40 m EW × 9.60 m NS that was provided with a heated collective immersion pool, a hypocaust floor, a labrum, a small basin (for washing feet?), and possibly a freestanding bench in the destroyed N part (Figs. 29. 30; Fig. Suppl. 37). All walls are preserved in elevation, and the E wall was reexcavated to foundation level in 2016. It was revealed that the pit continued below the foundations of the E wall and the hypocaust system, cutting away the grey ash on which both had been built.

59 Since the hypocaust system was cut by the pit, its design can be excellently studied (Fig. 31; Fig. Suppl. 38). It includes eight NS-running channels, one oblique channel, and one EW-running channel under the pool (Fig. 15). The channels are 23–30 cm wide and 1.05 m high; they are separated by opus incertum walls of 24–26 cm width that rest on a compact, earth-mortar like leveling layer of c. 10 cm above grey ash. The oblique and EW channels must have led from the praefurnium arches (see below) to chimneys that did not survive.

60 The channels are covered with roof tiles that are filled with a layer of grey mortar with lava (6 cm) that served as preparation for the simply decorated opus signinum floor (8 cm). The floor was laid continuously in the entire room, and all other features were built on top of it. Few remains of a pinkish hydraulic plaster are visible on the E wall.

61 The pool has a size of 4.35 m EW × 1.50 m NS, of which 0.55 m were cut off in the W and never used as a pool, presumably to save water (Figs. 29. 30; Fig. Suppl. 37). The entrance steps were set onto the opus signinum floor and included a drainage

50 Coin Pompeii inv. 90412: bronze semis from Rome; obverse: head of Saturn r., in the center S l.; reverse: prow r., in exergue [ROM]A?; 10.57 g; 24.1 mm diam.; end of 3rd c/first half of the 2nd c BC.

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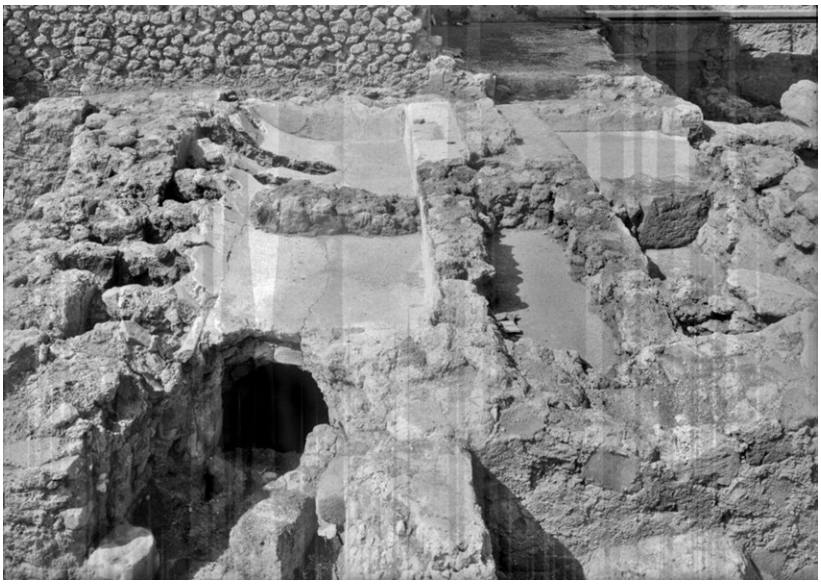

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Fig. 28: Room 11, trench along E wall, 2016, from N

Fig. 29: Room 11, pool, from E, 1950

Fig. 30: Room 11, pool, from E, 2016

Fig. 31: Room 11, hypocaust system, 2016, from N

Fig. 32: Room 11, small basin and remains of labrum socle, from W

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channel housing a lead pipe. The pool was supported by nine arches made with brick voussoirs, covered with 1–2 layers of roof tiles that were also used to shape the curved back wall of the pool. While some calcareous concretions are visible on the floor and walls of the pools, these are much thinner than in the men's pool and the floor was not renewed here.

62 A small basin in the shape of a quarter circle survives next to the pool, in the SE corner of the room (Fig. 32). Maiuri wrongly attributed this to the garden peristyle phase[51], although it was built on top of the opus signinum floor and could never have worked with the level of phase 3. Set against the plaster of the pool steps and the wall, it had a maximum size of 30 cm EW × 30 cm NS (original depth unknown). It was faced with white plaster, and is covered with thick layers of calcareous concretions inside and outside. It may have functioned to wash feet before entering the pool, even if it had to be filled and emptied by hand. Standing with two feet inside would just have been possible.

63 Remains of the labrum socle were for the first time identified in 2016, in a distance of 0.60 m from the small basin, immediately N of a phase 3 wall (Fig. 32; Fig. Suppl. 39). Two adjacent opus incertum walls of 20 cm width with white plaster on the exterior S face remain. Both were built on top of the opus signinum floor and on an opus incertum wall (40 cm wide) that was constructed next to the E wall of the room as border of the easternmost hypocaust channel; this wall was cut by the quarry pit, like all other channel walls, but remains were found further N in the trench made in 2016 (Fig. 28). By analogy with the men's labrum, both walls can be assigned to the trapezoidal connection between the wall and the round socle of the labrum which is not preserved. Three matching fragments of a labrum basin were found reused in the W wall of R21, the N half of which was repaired in 1950 (or later) (Fig. Suppl. 40). Pesando had already found a labrum fragment in this wall[52]. The fragments may have belonged to the women's labrum basin and were possibly found during the excavation of the women's caldarium and then reused for modern repairs. While the diameter cannot be securely determined, the fragments differ from those found in the men's caldarium (see above). Since the women's caldarium and pool are not much smaller than the men's pendants, the labrum should have been similarly large.

64 While the women enjoyed similar standards in their caldarium as the men, everything was smaller and more modest: the pool was a bit shorter, the labrum possibly a bit smaller, the pavement of the room simpler, and the temperature of the room probably lower. It is not clear to what extent the thinner floor (17–18 cm including the tiles vs. 26–27 cm in the men's caldarium) could have made up for the significantly higher channels (1.05 m vs. 0.60 m) and the lower numbers of praefurnia (2 vs. 4). The only extra was the small basin that the men did not have and which may have helped to improve the quality of the water in the pool.

Room 12 – Area III/3

65 Maiuri's photos show that he had excavated large parts of the central praefurnium room R17 (Fig. 29. 33). He recognized that the praefurnium was remodeled but did not fully explore it and did not provide phase plans and detailed explanations[53]. On his plans, he reconstructed cauldrons for heating water included into the W wall of the men's pool and the E wall of the women's pool (Figs. 2. 3)[54].

66 The praefurnium was originally one single large room of 3.30 m NS × 2.70 m EW that each included two arches in the W, N, and E walls. The arches were

33

Fig. 33: Praefurnium R17, 1950, from S

51 Maiuri 1950, 134 fig. 11.
52 Pesando 2002/2003, 238 f. fig. 20. It is unknown where this fragment is today.
53 Maiuri 1950, 128.
54 Maiuri 1950, 117 fig. 1.

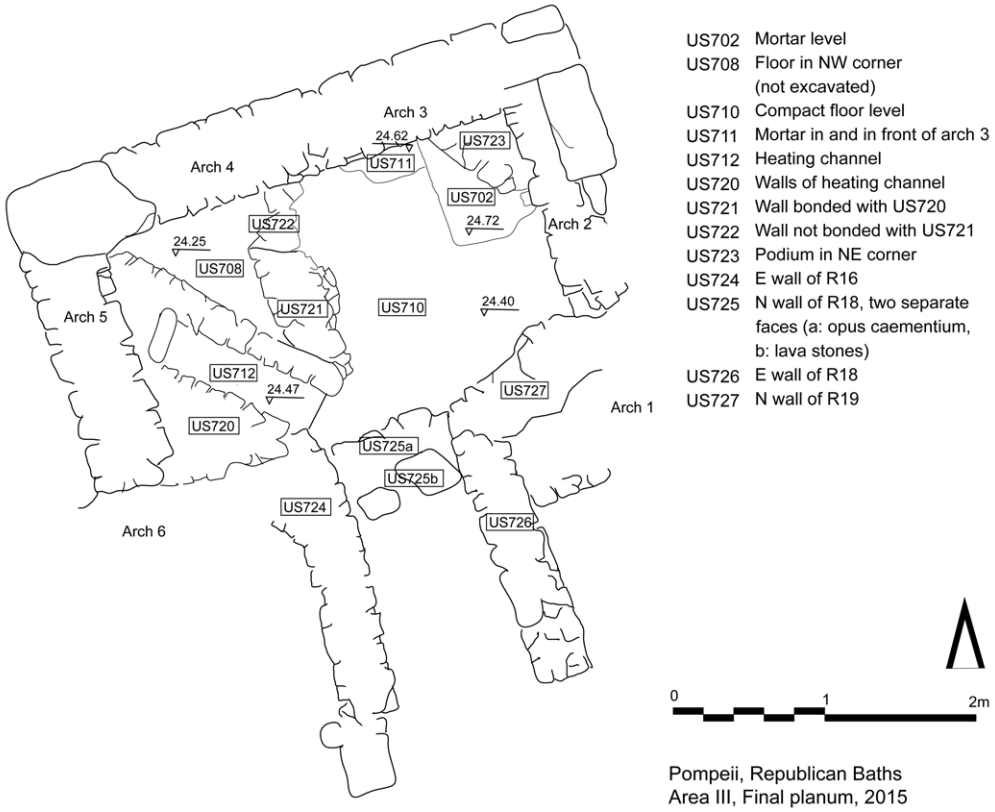

Fig. 34: Area III, final planum, 2015 (scale 1 : 50)

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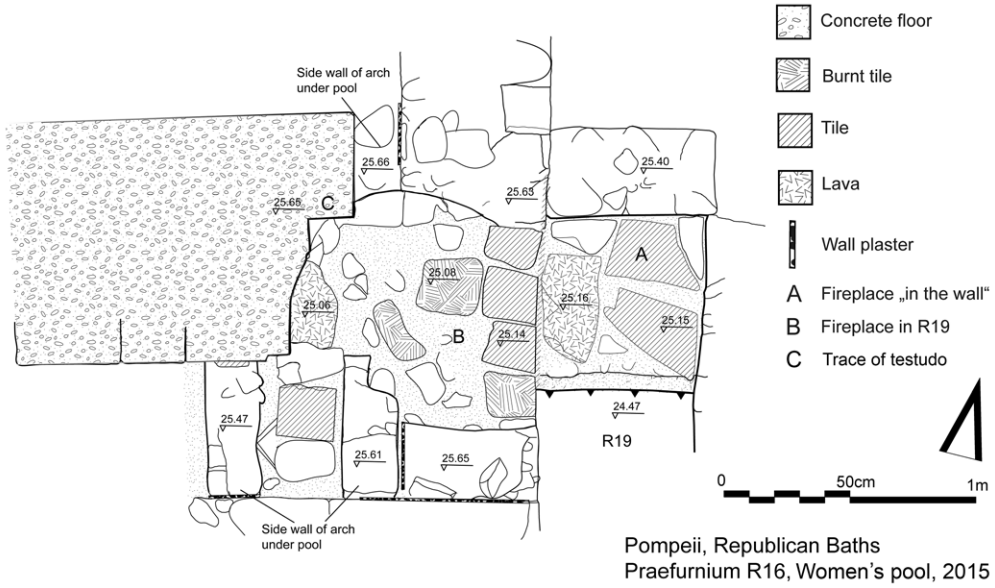
c. 0.60–0.65 m wide and c. 0.75 m high and their piers and voussoirs consisted of bricks and some tiles with thick layers of mortar[55]. The arches corresponded with heating channels under the pools and floors of the caldaria (Fig. 15). Later the praefurnium was subdivided into four different rooms (R16–19) by two NS-running walls and one EW-wall: 12a/R17 (2.70 m EW × 1.65 m NS); 12b/R16 (0.60 m EW × 2.35 m NS); 12c/R18 (0.75 m EW × 1.35 m NS); 12d/R19 (0.60 m EW × 1.80 m NS).

67 In R17, an oblique channel and additional walls were inserted that blocked some of the arches partially or entirely. Excavating R17 to the bottom of the arches and heating channels in 2015 aimed at clarifying the chronology and purpose of building activities in the praefurnium area. In 2016, a baulk left standing in the NE corner was removed. Furthermore, R16 was partially excavated in 2015.

68 To facilitate reference, the arches are numbered 1–6 in counterclockwise direction and the various features and walls received US numbers (Figs. 34. 35. 36). The relationship of the walls (bonded or not) and the features was difficult to determine because of the earlier excavations and the state of preservation.

- The area in front of arch 4 that was found confined by walls US720–722 had been completely disturbed and was only cleaned to the level of the threshold of the arch at 24.30 MASL (US708). This is the only original arch threshold visible today. The wall US722 collapsed in 2016.
- The lowest level reached in the remainder of R17 in 2015 was a compact level (US710) with ashy and carbonized material as well as finds providing a tpq of 150 BC. Met at c. 24.40 MASL in 2015, it was removed for another 10 cm in 2016 without yielding any more diagnostic finds (Fig. 37).

55 3 bricks for the piers, c. 9–10 bricks and 2–3 tiles for the voussoirs; the bricks were much better preserved in 1950 and are significantly eroded today.



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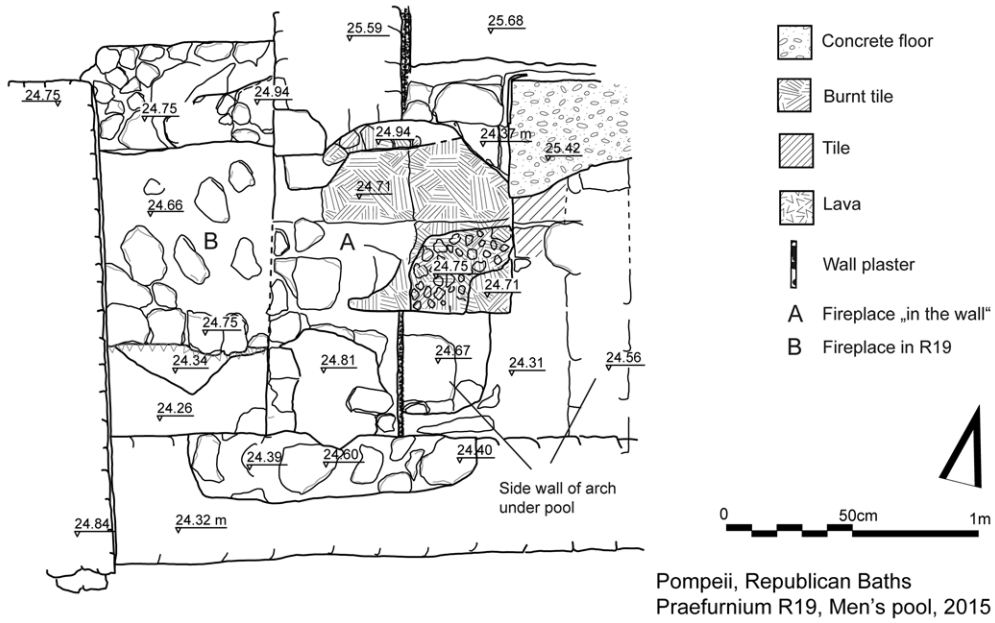

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Fig. 35: Praefurnium R16, women's pool, planum, 2015 (scale 1 : 30)

Fig. 36: Praefurnium R19, men's pool, planum, 2015 (scale 1 : 30)

- On top of US710, some ash, burnt tiles, and traces of mortar were found, the latter probably stemming from later building activities.
- The wall US725 was founded on US710, and US724 and US726 also go down to this level. US725 is, however, a double wall: while the N part (US725a) is made of opus caementitium with an upper surface at 24.55 MASL, the S part (US725b) consists of large lava blocks preserved to a height of 24.80 MASL.
- The level was raised in R17 with a compact fill (US709) for about 20–30 cm (Figs. Suppl. 41. 42) that did not include diagnostic finds. The walls of the oblique channel and for blocking off the arch 4 as well as US722 were founded on US709. While US720 and US721 were solidly built and connected, US722, which ultimately blocked access to arch 4, seems to have been a flimsily added later. The channel was plastered on the inside (US712).
- The triangular podium US723 in the NE corner and the walls that partially blocked the arches 2 and 3 (preserved for about 10–20 cm height) were also built on US709 (Fig. 37; Fig. Suppl. 43).

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38

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Fig. 37: Area 3, view from W, NE corner with US710, 2016

Fig. 38: Area III, view from E, mortar US702, 2015

Fig. 39: Area III, R16, N section, from S, 2015

- On top of US709, several ashy levels (US705/706 without diagnostic finds) were found in the S half, and a hard, compact level with mortar at the top (US702) in the NE corner (Fig. 38; Fig. Suppl. 43). Met at 24.72 MASL, this was the uppermost intact ancient level excavated, with material providing a tpq of 150 BC. Originally, the mortar was a continuous layer that covered the podium US723, the walls in the arches, and the floor in the NE corner, if not in the entire eastern area of R17.
- In R16, the fill below the current fireplace was cleaned and slightly cut back to understand the stratigraphy (Fig. 39). A sequence of ash layers (US713, 715–717), interspersed with one more compact clay layer (US714) was identified, none of which included any diagnostic sherds. Charcoal from the layers

showed that the main fuel was *Fagus sylvatica* (beech) but *Quercus ilex* tp. (evergreen oak) and *Ostrya carpinifolia* (hop hornbeam) were also burnt[56]. These layers supported the latest fireplace, located 65–70 cm above the original floor level and paved with fire-resistant tiles and a lava block (Figs. 35. 40; Fig. Suppl. 44). While the ash layers clearly stem from operating the praefurnium, the raising of the level must, at some point, have been intentional because the layers completely blocked the arch 1 so that fire could no longer be made under or in front of the arch, but only on top of it.

40

Fig. 40: R16, W wall of R9, praefurnium, from N, traces of testudo in mortar floor of pool (lower right corner), 2015

69 Despite the problematic state of preservation, the lacunary stratigraphy, and the lack of typological comparisons in Late Hellenistic/Late Republican bathing culture, the following scenario is proposed here. The praefurnium seems to have been conceived with a homogeneous floor level at 24.30–24.40 MASL (openings of arches and floor) and six separate fireplaces under or in front of the arches. US710 was probably a compact earth floor, and while the walls must have been founded close to this level, the foundation of the walls was nowhere reached. The six fires served to heat the pools (arches 1, 6) which were built on a series of arches[57]; oblique channels (arches 2, 3, 5) which connected the NS-oriented heating channels under the floors of the caldaria; and two NS-running channels under the men's schola labri (arches 3, 4) (Fig. 15).

70 A major problem of the original concept is how water for the pools could have been heated because no evidence of supports for cauldrons survives. Typological comparisons with »Western Greek-type« baths and other early »Roman-type« baths indicate that water was heated separately and only kept warm in the pools by hypocaust channels and, optionally, testudines[58]. Here, there may have been one centrally placed cauldron for both pools in the praefurnium area or installations in front of the pools which were replaced by later structures.

71 Several changes were made in a second phase, to improve the functioning of the heating system. The walls of R16, R18, and R19 (US724, N part of US725, US726, US727) and the channel in R17 (US720/US721) were built. In R17, the level was raised for 20–30 cm, in correlation with the bottom of the new channel US720 and the partial blocking of the arches 2 and 3. Access to arch 4 was restricted by US721. At least the features in the E part were covered with mortar to provide a homogeneous new surface.

72 After these changes, separate cauldrons for the pools could be installed in R16 and R19[59], which were supported by the new walls in a height of at least 80–90 cm above the floor, thus above the key stones of the arches 1 and 6; fires were made at the level of the original floor (or slightly higher) so that the hot air heated both the cauldron and the pools, flowing through the open arches 1 and 6. Maiuri's reconstruction of cauldrons placed in the walls and extending into the pools is impossible: a wall was required between the pool and the cauldron in order to avoid direct contact of bathers with a scalding hot cauldron[60]. R17 was accessible via R18, with US725a serving as a threshold to the raised level in R17. The various installations in R17 obviously served

56 The analysis of the ash deposits was carried out by Mark Robinson.

57 Maiuri 1950, 123 fig. 5.

58 Lucore – Trümper 2013; Trümper 2015.

59 This solution was first proposed by Heide 2023, pls. 32. 33 figs. 102–108 with detailed reconstructions, but for the last phase of the praefurnium.

60 Nielsen 1990, II 50 fig. 14; Garbrecht – Manderscheid 1994, 295 fig. 3.

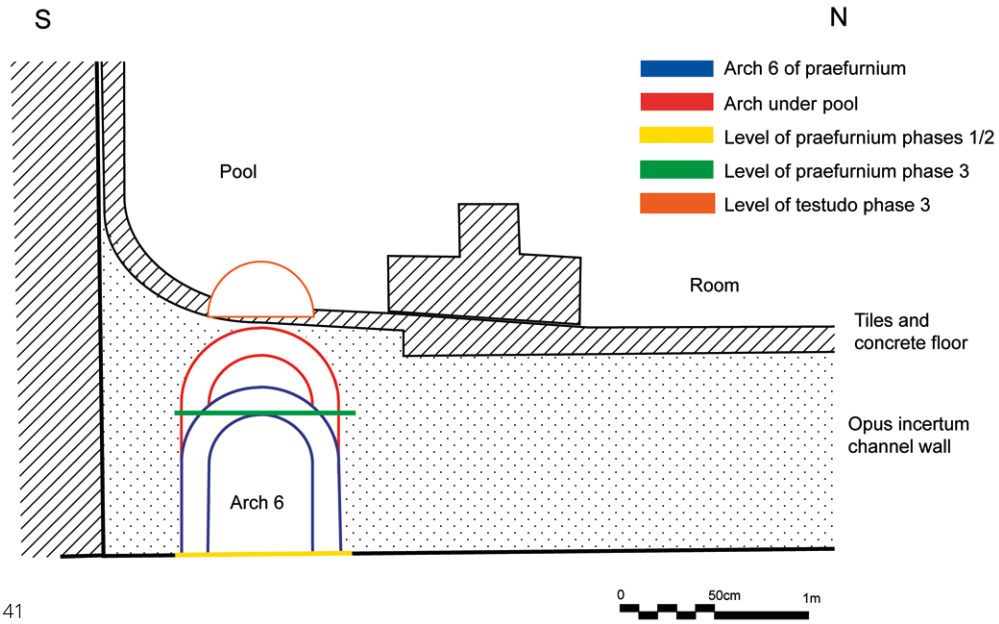


Fig. 41: Reconstruction of arches, praefurnium levels, testudo in R9 and R16 (scale 1 : 40)

41

to enable much more localized and concentrated firing: in the channel US720, in the confined NW corner for arch 4, and in the NE corner for arches 2 and 3 with openings of only 30–35 cm height. Arch 4 was eventually fully cut off by US722 so that the least important part of the men's caldarium (western part of the schola labri) could no longer be heated.

73 In a final phase, access to R17 was either fully blocked with US725b or the level was further raised in R17, with fills removed by Maiuri. This is not entirely impossible because in R16, the level was raised by 65–70 cm above the floor, and a new fireplace was installed at the level of the keystone of the arch 1 (at 25.15 MASL): in the wall and to its E, in R16, there are clear traces of a heavily used fireplace with burnt tiles and lava blocks (Figs. 35. 40; Fig. Suppl. 44). The W wall of R16 shows that the upper voussoirs and keystone of the arch were dismantled[61] (Fig. Suppl. 45) and that the entire former opening of arch 6 and the opening of the first arch under the pool were filled to the level of 25.15 MASL; the dismantled bricks of the arch were reused to construct the new fireplace. A testudo was installed in the wall, of which traces remain at the eastern preserved border of the pool floor. About 50 cm space was available between the bottom of the testudo and the fireplace above the arch, and similarly between the fireplace in R16 and the cauldron whose bottom must have been at level with that of the testudo (Fig. 41)[62]. Furthermore, the flow of hot air under the pool was now severely restricted because only 30 cm height of the arches that supported the pool were still accessible from the fireplace in the wall.

74 A similar situation was revealed in R19 and the E wall of the men's pool (Figs. 36. 42). The bottom of the men's pool is located 25 cm below that of the women (25.40 MASL vs. 25.65 MASL), and was originally even 8–10 cm lower because its floor was once renewed above a thick layer of concretions. The latest fireplace in the wall and to the W of the wall (R19) was at 24.75 MASL and also provides evidence of heavily burnt tiles. In R19, the level was raised for 40 cm and even supported with a wall, which was lacking in R16. Arch 1 must have been dismantled more significantly than arch 6 (from

61 2 bricks and 1 tile are still visible; thus, c. 5–6 voussoir bricks, including the key stone, must have been removed.

62 Nielsen 1990, II 60 fig. 14.

42

Fig. 42: R19, E wall of R20, praefurnium, from S, 2015

c. 25.20 MASL down to 24.75 MASL[63]), and hardly any traces of the arch are visible today. The former opening of arch 1 and the area between the first and second arch under the pool were filled to the level of 24.75 MASL, and the dismantled voussoir bricks were reused in the construction of the new fireplace. There was a space of 65 cm between the fireplace and the bottom of the pool. Traces of a testudo are less obvious at the bottom of the pool here, but there are remains of a brick wall at the N border of the fireplace which may have served to support a testudo. It is unclear how much hot air could have flown from the praefurnium under the arches of the pool which are largely collapsed today.

75 The three phases remain hypothetical and are difficult to correlate with the large use phases of the baths, partly because they cannot be identified as clear-cut technological improvement or as possible makeshift solutions, that, for example, would have aimed at saving fuel. The testudines of phase 3 were certainly a fashionable innovation, but their installation may have entailed significant disadvantages for heating the entire room(s).

Room 13 – Areas 21/22

76 Maiuri had recognized that R21/22 were service rooms whose vaulted ceilings supported a water reservoir. Since the walls of these rooms differ significantly in material and technique, both were excavated to explore the chronology and relationship of the walls.

Area 21

77 After removal of modern rubble and fill, grey ash appeared in the entire room, at c. 24.55 MASL (Fig. 43; Figs. Suppl. 46. 47). Maiuri had dug a pit along the N wall, down to its foundation, and an L-shaped trench along the S and E walls. While the N wall was founded at 24.20 MASL and set against the grey ash in R21, the W wall rested on the exposed ash level, at 24.65 MASL. In the L-shaped trench, a darker natural level appeared below the grey ash and a row of travertine blocks (upper surface at c. 24.55–24.60 MASL) that belonged to the original deep well.

63 All voussoir bricks were presumably removed.

43

Fig. 43: Area 21, view from N, 2016

78 The S wall is key to reconstructing the history of the well because 3 phases can be identified (Fig. Suppl. 46)[64]: 1) travertine ashlar blocks; 2) opus incertum with small lava blocks and lots of mortar at the western end of the S wall, bonded with the W wall; this sits not directly on the ashlars, but on a kind of mortar layer; 3) opus incertum with larger lava blocks and large gaps between the blocks, built directly on top of the travertine ashlars. While not bonded with the S wall, the E wall is made similarly and founded at the same level, but on an artificial fill that was excavated in R22.

Area 22

In this area, an intact stratigraphy was found above grey ash in the S part of the room (Figs. 44. 45. 46).

- Grey ash, US1612, was met at 24.01–24.08 MASL.
- A fill, US1611, served to raise the level above US1612. The fill included two coins that provide a tpq of 130/120 BC. The E wall was built on top of this fill, at c. 24.42 MASL.
- A compact dark brown stratum, US1610, that was more compact in its upper part was most likely a floor level, met at 24.57–24.62 MASL. It also included a coin minted after 130/120 BC. Several ash lenses found on top of US1610 (US1604, 1608) may stem from activities in the nearby praefurnium.
- All layers were cut when the partition wall between rooms 13a and b was built. A deep trench (US1613) was found along the W wall of 13b which must have continued below the wall; it was filled with US1605 which also served as fill under the wall (founded at 24.68–24.73 MASL) and included material providing a tpq of 140/130 BC. A construction trench was also identified along the S wall where it was overbuilt by the buttress US1615, while the eastern part (US1614) was not excavated.

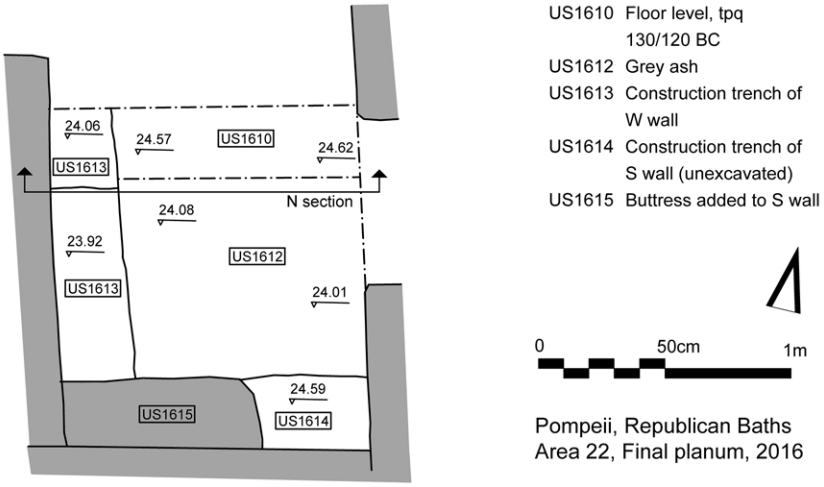
79 The architectural survey and stratigraphy in rooms 13a/b suggest the following sequence: In phase 1 of the baths, 13a/b was built as one single large room immediately to the N of the existing deep well, and with a size of 3.80 m EW × 2.80 m NS. The N and W walls of this room, and the western part of the S wall of 13a were built on/against grey ash; the grey ash sloped significantly from W to E for about 40–50 cm. The eastern part (room 13b) was leveled with the fill US1611 to support the earth floor US1610 which was most likely removed in 13a by Maiuri's excavation. US1611 and 1610 included three coins minted after 130/120 BC which provide a tpq for phase 1. The E wall of room 13b is barely preserved but may also go back to this phase because it is founded on the fill US1611; alternatively, it was rebuilt at this level in a later phase.

80 In phase 2, the deep well was remodeled, the new S wall and the partition wall between rooms 13a and b was built. Thus, the room was subdivided into 13a/R21 (1.80 m EW × 2.80 m NS) and 13b/R22 (1.30 m EW × 2.80 m NS). While the S wall was founded on top of the travertine ashlars of the well in room 13a, its foundation was not revealed in 13b. The deep trench US1613 excavated in 13b must have been related to the

64 Trümper 2020b, 143–146; Heide 2021.

enlargement of the well to the E because it is exactly at the point where the original E wall of the well was located. The trench was artificially filled (US1605) to a level above the original floor, to support the partition wall. A new floor must have been made at 24.72 MASL or higher in phase 2, at level with the bottom of the new partition wall, but no intact stratigraphy was found above US1610.

81 The doors between rooms 16 and 13b, and 13a and 13b, are both 70 cm wide and do not preserve thresholds. The N wall was found covered with simple white plaster in 1950 of which nothing remains today. The spring of a barrel vault was also preserved in 1950 on the N wall, in the NE corner, of which very little survives today[65]. Calcareous concretions are still visible in the NE corner of 13b. It is not clear whether the vault and plaster go back to phase 1 or only to phase 2.



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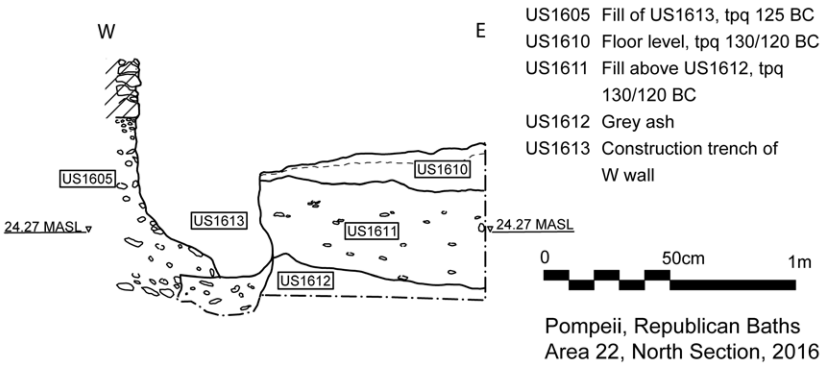

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Rooms 14/15

82 This is the deep well with adjacent service rooms. The evidence, development, and functioning of the deep well with its surroundings have been discussed in detail by Thomas Heide; his results are very briefly summarized here[66].

83 The original well was built out of travertine blocks and had a size of about 2.50 m NS by 1.90 m EW. Heavy calcareous concretions on its N and S walls suggest that water was drawn by hand from the open well.

84 When the baths were built, the well was integrated and modified to improve the water lifting mechanism and capacity. The former upper border of the well was replaced by opus incertum walls of unknown height (Fig. Suppl. 46: no. 2). To the E of the well shaft, a wall was added (W wall of room 16) so that a narrow room of 1 × 3 m was created. The narrow room housed a tread wheel (diameter of 2.20–3 m) accessible via a staircase in room 15 and a wooden platform above the well shaft. The tread wheel powered a single chain with buckets installed in the well shaft that led water into a high-lying reservoir of 2.80 × 3.80 m above room 13. The reservoir

46

Fig. 44: Area 22, final planum, 2016 (scale 1 : 30)

Fig. 45: Area 22, N section, 2016 (scale 1 : 30)

Fig. 46: Area 22, view from S, 2016

65 Heide 2021; Heide 2023, 37–119.

66 Heide 2021; Heide 2023, 37–119.

was located next to the praefurnium and could have conveniently served all water users: the cauldron(s) for heating water, the pools, and the labra. Operating the tread wheel, one worker could have provided 0.90 m^3/h water, and working for 9.5 h could once have filled the reservoir. With c. 8.50 m^3, the capacity of the reservoir would have sufficed to fill all water users once (c. 5.20 m^3).

85 In a second phase, the well was enlarged and the performance of the water lifting device enhanced. Whether the improvement was the main reason for changes, or whether parts of the well had collapsed and needed to be repaired, cannot be determined. In any case, the E wall of the well was destroyed which must have been a major effort because the well was presumably about 22–23 m deep. A new opus incertum wall was built 0.90 m further E so that the shaft was now 2.50 m NS × 2.70 m EW; the upper part of the well shaft was completely renewed (Fig. Suppl. 46: no. 3), and the western part of the shaft was vaulted for 1.90 m EW. The vault was strengthened by buttress walls, namely the partition wall of 13a/b and a corresponding wall in room 15. The water reservoir above 13a/b was now higher, providing a capacity of 12.77 m^3 which sufficed to fill all water users 2.5 times. The bucket chain was located in the E part of the well shaft, while 2–4 workers operated a man-powered mechanism of interlocking wooden gears set up on the vault. Two workers could have lifted 1.92 m^3/h, more than twice as much as with the former mechanism.

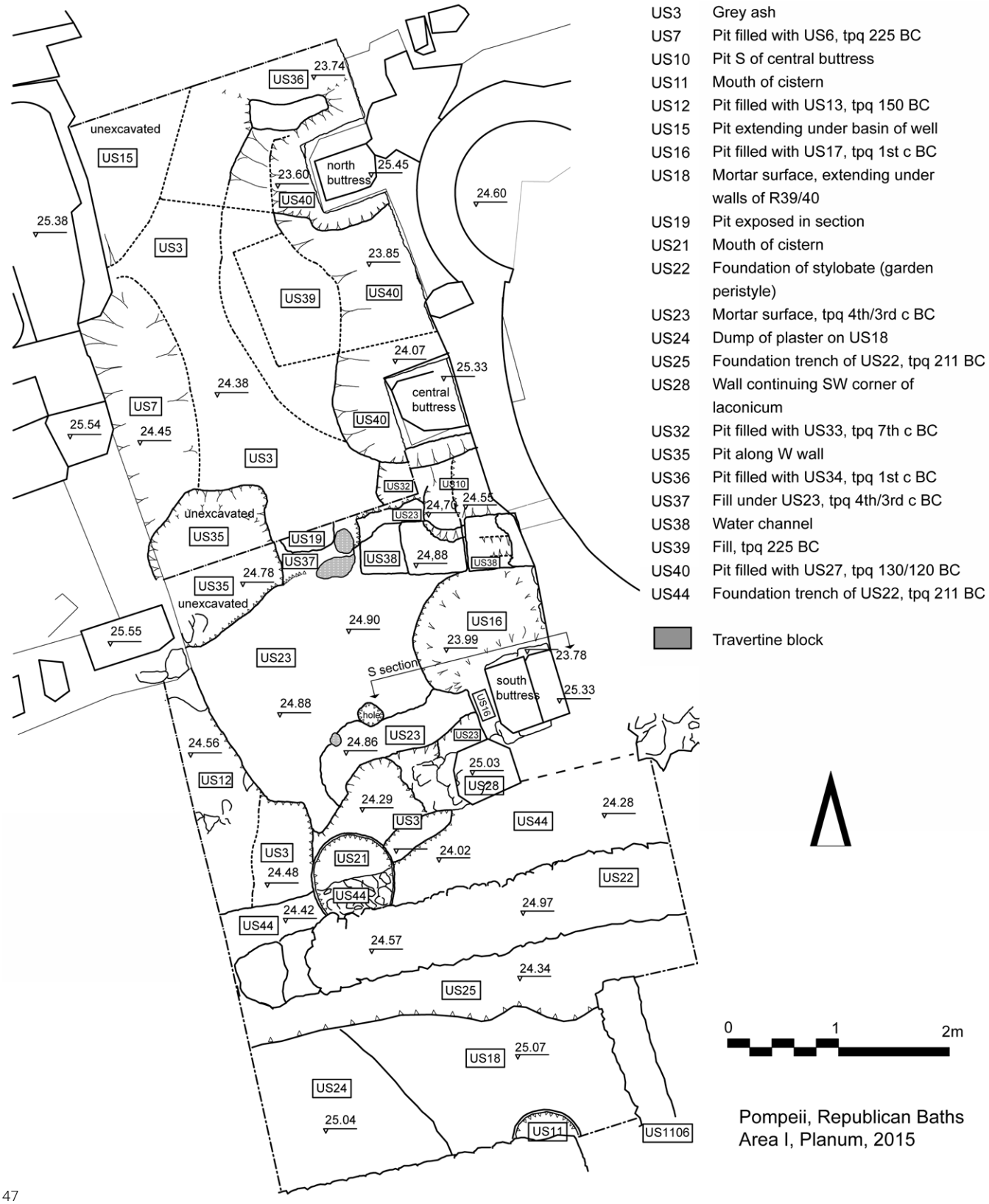
86 The two phases of the deep well may have correlated with the phases 1 and 2 of the baths. While no diagnostic evidence allows dating the phases more precisely, the remodeling of the well was certainly the most costly and complex change in the baths.

Room 16 – Area I

87 This is a service room with size of at least 3 m EW × 10.90 m NS; it was possibly more extended in the S where the boundary cannot be securely determined. The E and W walls are preserved in elevation, except for the stretch between rooms 2 and 16.

88 Maiuri excavated the entire area of R29, going down much deeper in the northern part (to the north of the central laconicum buttress). His plan (Fig. 2) shows that he found several features (cistern US21, foundation US22, wall US1106) in the southern part that were again revealed in 2015. Several pits were cut at different times into grey ash (US3) that was found in the entire area (Figs. 47. 48. 49. 50; Fig. Suppl. 48).

- The W wall of the laconicum 6 was built, partially set on top of an EW-running channel (US38) that may have led from the W (R26) to a tank in the area of the laconicum (R30). To the N of the channel, the wall was founded at a level of 23.60 MASL, to the S at 24.53 MASL, but both stretches were built on grey ash levels, as was clearly visible on the inside (see below).
- Two cistern mouths (US11, US21) were found in the S part of the trench, both surrounded by large patches of a coarse mortar floor (US18, US23) that slightly slopes from 25.07 MASL in the S to 24.88 MASL in the N. US23 included pottery providing a tpq of the $4^{th}/3^{rd}$ c BC, and was founded on strata with pottery giving a tpq of the $4^{th}/3^{rd}$ c BC (US37) and the 7^{th} c BC (US41). Grey ash (US3) was found below US37 and US41. US23 borders the wall US28 that was bonded with and extended W from the SW corner of the laconicum and is contemporaneous with the mortar floors. The mortar floor (US18/23) was later cut by the deep foundation trench for the wall US22 that served as foundation for the stylobate of the garden peristyle.
- Deep pits were cut into the grey ash US3 along the W wall of the laconicum. The large pit US40 extended to the base of the W laconicum wall between the N and central buttress of the laconicum, its bilobed shape suggesting it was dug for adding the buttresses to the wall, founded at the same level. The pit



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was filled with US27 that included a coin minted at the earliest in 130/120 BC Pit US36, a deep quarry pit next to the NW corner of the laconicum was filled with US34, providing a tpq of the 1st c BC. Pit 16 was the construction pit for the S buttress, which was founded much deeper than the adjacent laconicum wall, at 23.78 MASL vs. 24.53 MASL, and set against the wall US28. Its fill US17 provides a tpq of the 1st c BC.

Fig. 47: Area I, final planum, 2015 (scale 1 : 50)

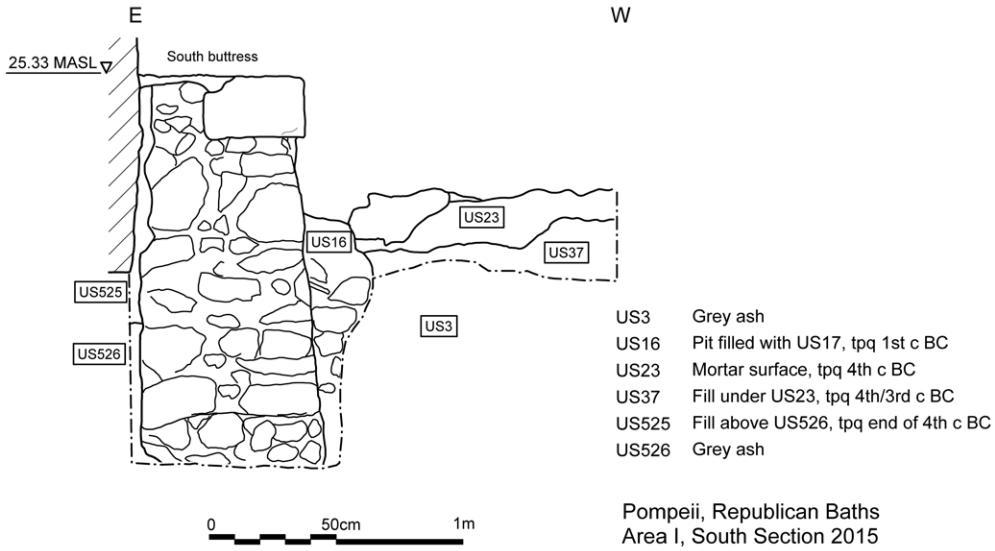

Fig. 48: Area I, S section, 2015 (scale 1 : 30)

48

Fig. 49: Area I, view from S, 2015

49

- The pits along the W border of the trench (US7, US12, US15) were cut into the grey ash and continued under the basin R4 and the E wall of R28. The stratigraphy did not allow determining whether the pits were made in phase 1 or 2 of the baths or were even earlier and the finds from their fills (US6, US13) provide only a tpq of 225 and 150 BC.

89 The W wall of the laconicum, the cistern mouths, and the mortar floor(s) can be assigned to phase 1 of the baths, the pottery from related strata providing a tpq of the 4th/3rd c BC. If the pit US12 predated the construction of the baths, its fill US13 would provide a more precise tpq of 150 BC. The evidence of the S buttress confirms that the buttresses belong to a remodeling and served to stabilize the laconicum wall, sometime in the 1st c BC (US34). While the foundation US22 and the walls that cut the cistern US11 can be attributed to phase 4, no evidence of phase 3 could be securely identified in this trench.

50

Fig. 50: Area I, buttresses, from W, 2015

90 The room was conceived as part of the aforementioned central band of rooms, together with room 7, the men's schola labri, and the praefurnium 12. It may have extended S to the continuation of the laconicum's S wall (US28) or even to the S façade, with a total length of 17.15 m. The mortar floor around the two cistern mouths revealed to the N and S of wall US28 suggests there was at least an opening between the »corridor« 16 and the possible service courtyard 18. The original floor level must have sloped for about 60–70 cm, from c. 25.00 MASL in the S to 24.30 m MASL in the praefurnium. The room may have been uncovered, providing light for the adjacent rooms.

Room 17

91 This is a secondary service entrance with a size of 1.90 m EW × at least 2.30 m NS. The room did not receive any attention by Maiuri, and it was used as a deposit for tools in 2015 and 2016. While the N part of this area (R26) was excavated in 2016 and further cleaned in 2019, the S part (R34) was only cleaned in 2019 to better understand the complex situation: the existence of the double wall in the W, as well as the chronology of the S and E walls.

92 All of these walls are preserved in elevation while the N boundary of the room cannot be securely determined. The projecting foundation of the E wall was met at 25.63 MASL but the lower border of the foundation was not reached.

93 Initially, there was an entrance from the S street (Fig. 51; Figs. Suppl. 49. 50. 51). Remains of a lava threshold were found, located next to the W wall of the room, with an upper surface at 25.74 MASL. It is 1.12 m wide, 15 cm high, and includes cuttings for a double door. The door was c. 2.40 m high. It was blocked in phase 3, which is visible behind a modern stabilizing scaffold on the S façade: next to a door jamb made of travertine blocks (W) is opus incertum made mostly with travertine pieces (1.10 m wide), and then the original wall of opus incertum with lava (E).

94 Remains of several plaster layers are visible on the S wall: a white plaster, covered by a layer of hydraulic plaster; both remain only above the level of the threshold and cover the blocking of the door. The cork model (Fig. Suppl. 1) shows remains of a Second Style painting with yellow and red in the main zone on the W wall of R34.

95 The travertine door jamb is aligned with the E half of the double W wall; the threshold was set against this wall showing that they were conceived together. The W half of the double wall was completely rebuilt in phase 5 but must have existed in phase 1. The duplication of the W wall can be explained with the fact that a large double

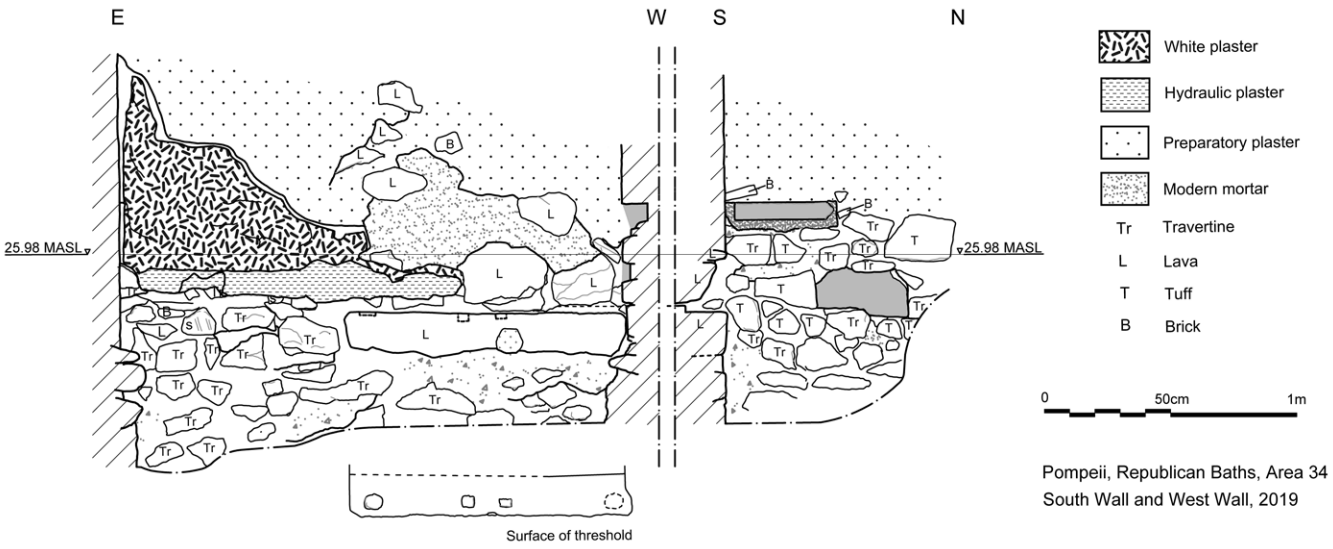

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Fig. 51: Area 34, S and W section, 2019 (scale 1 : 30)

cistern existed in the Casa delle Pareti Rosse: its E chamber was located in room m, extending E to the partition wall between this room and R26/34 of the baths[67]. The cistern was 2.6 m high (interior), and the current walking level of room m is at 27.84 MASL, while that of R26/34 is 2–2.50 m lower. The W boundary of the original baths respected the existing cistern, and the W wall was stabilized with an extra buttress wall up to the height of the cistern's roof (located at c. 27.84 MASL or slightly lower).

96 Room 17 was used in phases 1–5, with the following function: in phases 1 and 2, it served as the secondary entrance to the service section of the baths. The door led into a narrow corridor, the length of which cannot be securely reconstructed. This may have been an L-shaped corridor leading between rooms 15 and 18 to room 16; or it was a short corridor that ended in a large open zone (courtyard 18). Since the threshold is at a significantly higher level (25.74 MASL) than the mortar floors in rooms 16/18 (24.90–25.07 MASL), the floor of the corridor must have sloped from S to N.

97 In phase 3, the door was blocked and the room transformed into a corner room of the garden peristyle which was decorated with Second Style wall painting. In phase 4, a latrine was installed at the S wall, with a wooden seat at the level of 26.18 MASL, which was fixed in a cavity in the W wall; the area of the latrine was covered with hydraulic plaster. No changes can be securely attributed to phase 5, except for the rebuilding of the W wall.

Room 18 – cf. Areas I, 41

98 The southern area of the baths is significantly obscured by structures of phases 3–5 and by a large tree in R45. On Maiuri's reconstructed plan (Fig. 3), the entire S area is empty except for a channel and the door of room 17.

99 While two different spaces can be differentiated based on preserved floors (cf. Area I vs. Areas 37/41), denominated here as rooms 18 and 19, the extension of 18 to the N cannot be reconstructed any closer. The location of 18 next to the secondary entrance and room 16, the two cistern mouths found in Area I, and the coarse mortar floor US18/23. suggest that room 18 was a service courtyard. If it was bordered by the E wall of room 17 in the W, wall US28 in the N, and wall US1106 in the E, it would have had a size of 7 m EW × 5.90 m NS.

67 Room numbers following the plan PPM VIII, 619.

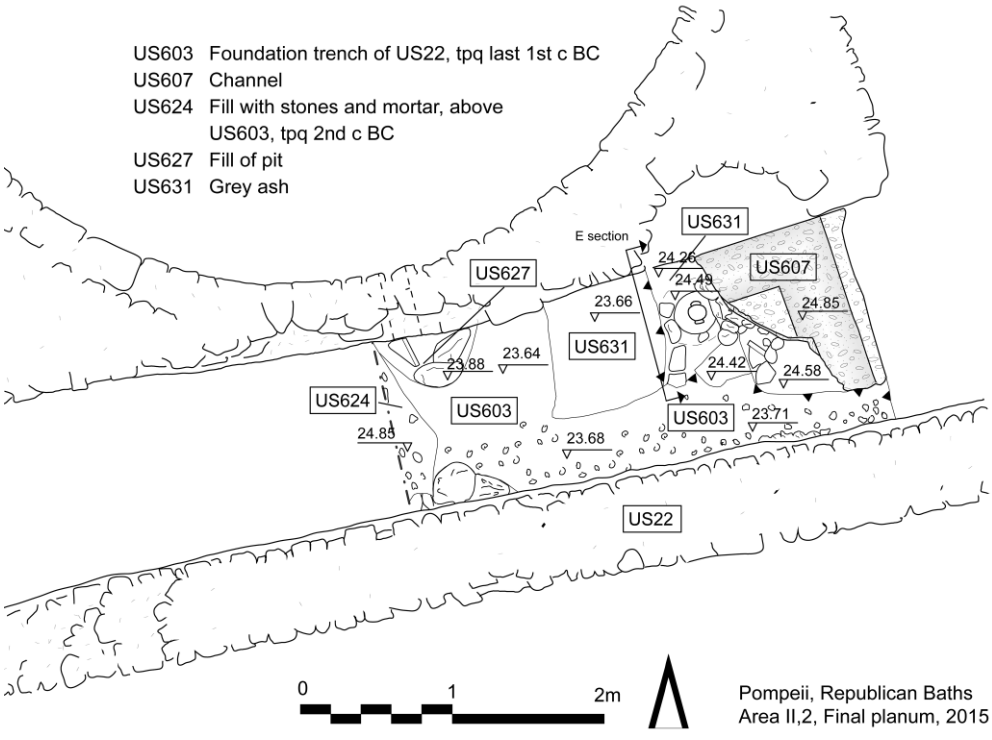
Room 19 – Areas II,2, 37, 41

100 Blank on Maiuri's plan (Fig. 3), this area is identified as the palaestra of the men's section with a size of 7.35–10.80 m EW × 6.50 m NS.

101 Structures assigned to the palaestra were found in Areas II,2 (Figs. 52. 53. 54. 55.), 37 (Figs. 56. 57. 58), and 41 (Figs. 59. 60; Fig. Suppl. 52). The stratigraphy is outlined for each trench, but all three are evaluated together. Maiuri had discovered the large EW-running foundation US22 of the stylobate of the garden peristyle and remains of a wide, open channel in R36/37, a NS-running wall in R41, and two semi-circular niches cut into the southern exterior wall of the laconicum (Fig. 2). Intact stratigraphies were found in all three rooms below the modern fills and features excavated by Maiuri.

Area II,2

- Grey ash was found in a small area (US631) at the eastern part of the trench.
- The S wall of the laconicum was built onto and against the grey ash.
- A pit, US621, was cut into the grey ash, and a Graeco-Italic amphora was set into this pit. The pit was filled with US630 and US619, the finds of which provided tpq of the 7th c BC and 150 BC, respectively. Several holes were drilled into the body of the amphora, its neck was cut off and surrounded with stones and tiles (US620), laid above the fill of the pit.
- On top of the amphora construction, a channel made of concrete with lava aggregate and large terracotta pieces (US607) was built, on a thick bed of mortar and tile fragments.
- The entire area to the S and W of the amphora construction and channel was disturbed by the massive foundation trench US603 that was made for constructing the foundation US22 for the stylobate of the garden peristyle. Therefore, the extension of the channel to the W and its provenance could not be determined. The material from US603 provides a tpq of the late 1st c BC.



52 Fig. 52: Area II,2, final planum, 2015 (scale 1 : 50)

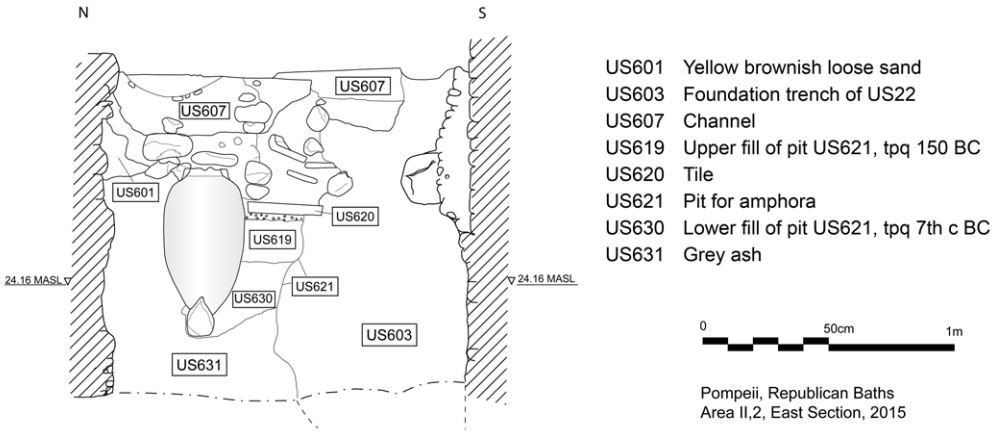


Fig. 53: Area II,2, E section, 2015 (scale 1 : 30)

Fig. 54: Area II,2, view from S, 2015, shortly before the end of excavation

Fig. 55: Area II,2, view of amphora from W, 2015

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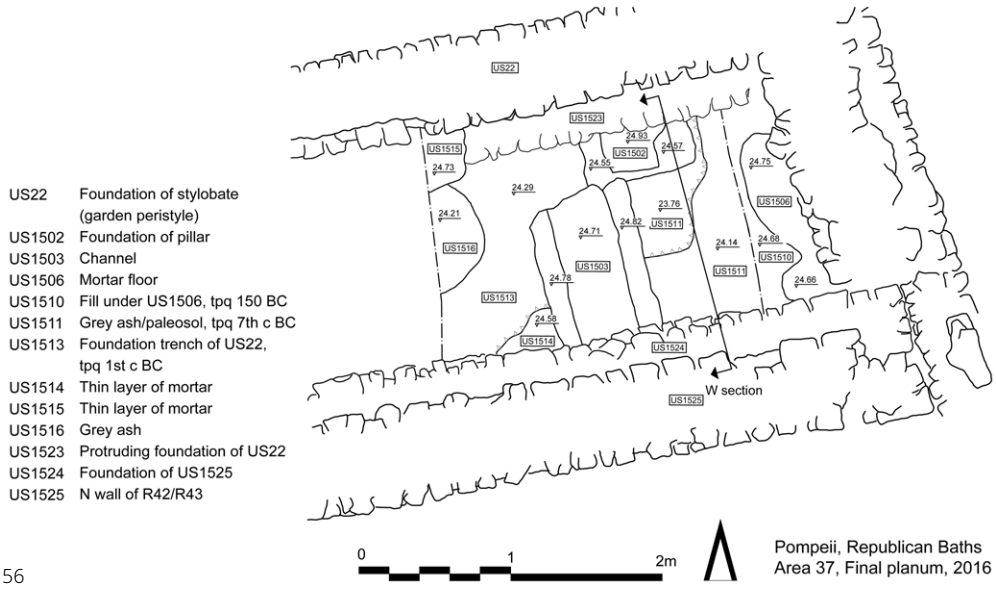
Area 37

- Paleosol that developed from grey ash and included very few finds of the 7th c BC (US1511) was found at the bottom of the trench. This was cut to construct a deep point-foundation US1502 that included the following elements, from bottom to top: a foundation of opus caementitium (0.47 m high); a reused travertine block (0.72 m EW × at least 0.35 m NS, 0.18 m high) with traces of working at the top and a coarse plaster on its S face; a vertically set travertine block (0.41 m EW × at least 0.30 m NS, 0.41 m high).
- The area to the S and E of the point-foundation was filled with US1507, 1508, and 1510, with finds providing a tpq of the 4th/3rd c BC, 4th c BC, and 150 BC,



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respectively. The wide, open concrete channel (US1503) that was found in Area II,2 continued here and was built on top of US1510 and the lower travertine block of the point-foundation US1502; it must have respected and surrounded the upper travertine block of US1502 which may have been slightly displaced to the W by later disturbances. To the E of the channel, but only at the eastern border of the trench, a thin white limestone mortar floor (US1506) was found on top of US1510.

- While the southern foundation US1524 (N wall of R42/R43) was built on top of the channel the northern foundation of US22 was dug down below all levels reached in Area 37, destroying almost all of the earlier strata to the W of the channel. Excavation stopped here at a point where only a small patch of grey ash (US1516) remained. Otherwise, the fill of this construction trench, US1513, must have continued further down; its excavated parts included material providing a tpq of the 1st c BC. The fill was consolidated with several mortar layers (US1514, US1515).
- The E wall of R37 was built last, abutting the N and S walls, and sitting on a fill US1504 that was found on top of US1506 and included pottery providing a tpq of the 4th/3rd c BC.

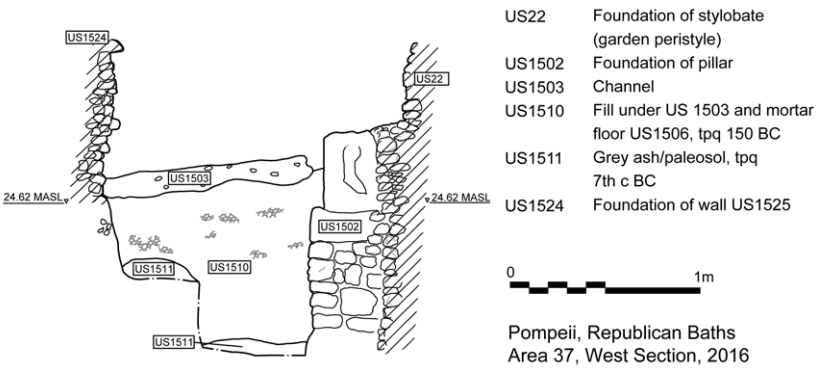

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Fig. 56: Area 37, final planum, 2016 (scale 1 : 50)

Fig. 57: Area 37, W section, 2016 (scale 1 : 40)

Fig. 58: Area 37, view from S, 2016

Area 41

102 Maiuri had dug a large hole in the N part of R41, going down to c. 25.00 MASL, and a kind of tunnel along the razed NS-wall US1106 that he discovered, going down to c. 24.40 MASL. An intact stratigraphy was found below these levels.

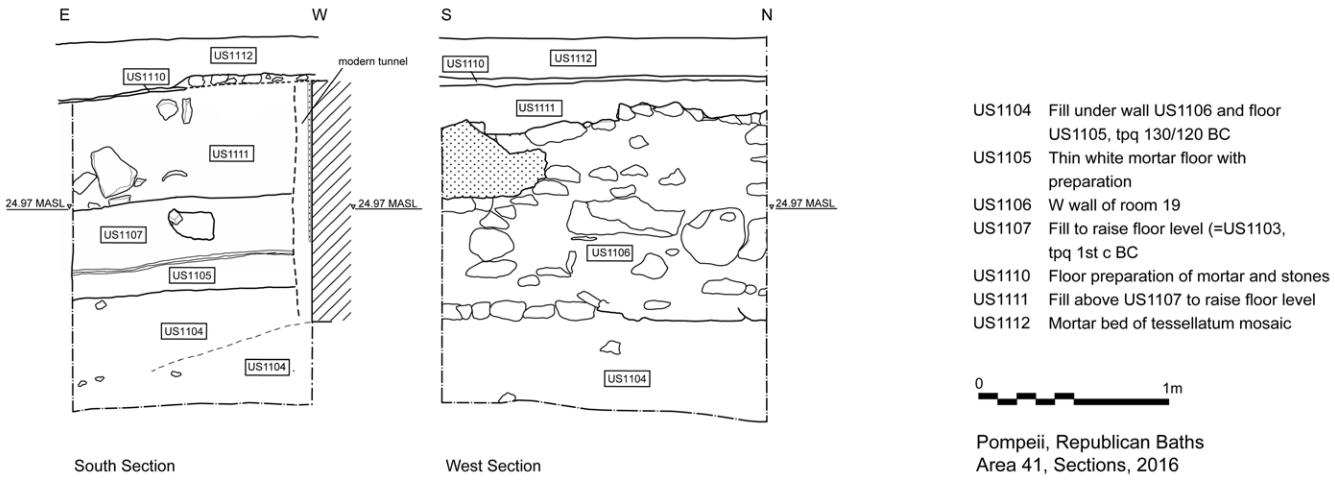
- Excavation stopped in the (not fully excavated) fill US1104 that served as the foundation for the wall US1106 at 24.40 MASL and was found up to 24.57 MASL to the E of this wall. The fill was deposited in layers, initially to build the wall and then raise the level in the space to its east. US1104 included a coin minted in 130/120 BC at the earliest.
- A thin white lime mortar floor with a substantial preparation, US1105, was found on top of US1104. The simple white plaster that is preserved on large parts of the E face of wall US1106 extends almost down to this floor, suggesting that both belong to the same building project. The mortar floor was met at 24.64–24.74 MASL, thus at the same level as the mortar floor US1506 in Area 37 (at 24.75 MASL).
- A substantial fill, laid presumably in layers (US1103/1107/1111), served to raise the level above the crest of the razed wall US1506, its material providing a tpq of the third quarter of the 1st c BC. The preparation layers (US1110/1112) of the barely preserved tessellatum mosaic of R41 were found on top of this fill.
- The N wall (US1524) of the northern ›double‹ wall of R42/43 was founded on US1104 and US1105, while the S wall (US1525) is sitting on US1107.

Assigning features found in these three areas to the different phases is challenging for various reasons.

103 The strange amphora installation has parallels in the Vesuvian area. Under the concrete floors of several houses of the 4th to 1st (but mostly 2nd/1st) c BC inverted amphorae were found with holes in their bodies and the bottom and neck cut off; liquid was drained through holes in the floors into the amphorae[68]. Fourteen such installations, including mostly one single, but sometimes 2–3 amphorae stacked into each other, were excavated by the Porta Stabia project in Insulae VIII.7 and I.1[69]. These could be dated by stratigraphic evidence to the 2nd/1st c BC and identified as soak-aways installed in connection with the fish-salting industry. Mostly Graeco-Italic and Dressel 1 amphorae were used, found inverted, with holes in their bodies, and with cut-off necks and bottoms that were connected via small openings (c. 5 cm in diameter) with concrete (opus signinum), beaten-earth, and simple mortar floors. When the fish-salting industry, with its noxious waste, was replaced by properties »producing more typical household waste«[70] the amphora soak-aways were substituted with drainage channels.

104 The amphora in Area II,2 of the Republican Baths was found upright and its broken neck was not directly linked with any floor; the bottom of the wide channel US607 is 30 cm above the amphora neck; furthermore, it makes no sense to empty a well-made wide channel into an amphora. The amphora may have belonged to the various earlier water-related features found in the area of the baths and some related industrial activities but it is conspicuously placed right next to the S wall of the laconicum – the builders of the laconicum would, just by chance, have missed it. If the amphora belonged to phase 1 of the baths, many other features found in Areas II,2, 37, and 41 (see below) must be assigned to a later phase. It would still remain unknown what the amphora drained and how the entire area to the S of the laconicum was used as no secure evidence of two phases were found in Areas 37 and 41.

68 Pesando 2012, 537.
69 Baker 2023.
70 Baker 2023, 439.



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105 The channel from Areas II,2 and 37 (US607/1503), the point-foundation (US1502) and mortar floor (US1506) from Area 37, the mortar floor (US1105) and wall (US1106) found in Area 41, as well as the cistern(s) and mortar floor found in Area 29 (US11/18/21/23, see above) belong to the same phase. The western mortar floor is much coarser and located at 24.90–25.04 MASL, while the fine lime mortar floor in the E is at 24.64–24.75 MASL. Both mortar floors (US1105, US18) abut US1106 which served as a partition wall between two open areas.

106 Even if no conclusive traces remain on the surface of the much-destroyed upper travertine block of US1502, it may have supported the piers of a portico. To the E of the channel, in the area of R38, R43, R44, there may have been a portico with several supports (for example, two freestanding and two engaged piers, as suggested in Figs. 10. 11) that carried a single-sloped roof draining water into the channel. Similar porticoes with piers made of travertine blocks were found in several domestic contexts of Pompeii: in I.15.1, at the rear of the house in the garden area, dated to the 2nd c BC[71]; and in IX.9.6–7, in the garden area, dated to the 2nd c BC (Fig. Suppl. 53)[72]. The northern façade of the Villa dei Misteri was originally decorated with a portico made of four travertine pilasters, dated to the 1st c BC (Fig. Suppl. 54)[73]. In his study of Pompeian peristyle gardens, S. Simelius identified 252 domestic peristyles in the city's last phase. While he did not examine the diachronic development of peristyles, he designed a classification scheme, assigning 102 examples – among them that of IX.9.6–7 – to his lowest category of »architectural peristyles«. These little adorned peristyles would have had no

60

Fig. 59: Area 41, W and S sections, 2016 (scale 1 : 40)

Fig. 60: Area 41, S section, view from N, 2016

71 PPM II, 954–955, rooms 13–15.

72 PPM X, 131–132, today included in the W wall of rooms n and o.

73 Maiuri 1931, 38 f. 74 f. pl. B; these were later included in the N wall of rooms 23–25, cf. pl. A.

display value but would have served to provide light and air[74]. While many peristyles included piers of different materials, among them travertine, the piers were far less standardized than columns in material, shape, and size which makes reconstructions based on typological comparisons difficult[75]. The surviving evidence in the Republican Baths suggests that the portico was functional in nature.

107 The part of the channel along the S wall of the laconicum may have received water from the roof of this room. If the channel continued along the S wall of the laconicum to its SW corner and beyond, it could have supplied the cistern in R29; it is not sufficiently preserved to determine its inclination. The E branch, however, found in Areas II,2 and 37, slopes from N to S, leading water into the street. The concrete revetment of the channel in Area II,2 continued as pavement of the semi-circular niche in the S wall of the laconicum proving that both features were contemporaneous. No evidence survives of a corresponding niche in the SW corner as shown on Maiuri's plan, but the wall is much destroyed at this point and was found partially collapsed in both Areas 29 and 37.

108 While most walls of the baths were built directly on grey ash and paleosols that were found up to the levels of 24.53 MASL (US3) and 24.31 MASL (US526) in the SW area (inside and outside the laconicum) the partition wall US1106 was founded on an artificial fill at 24.39 MASL, the bottom of which was not reached at 23.85 MASL. This suggests that the cistern(s) found in R29/35 continued E under this wall; after constructing the cistern(s) in an unknown depth, the terrain had to be leveled with an artificial fill (US1104).

109 The fill of the amphora pit (US619) provided a tpq of 150 BC and the strata related to the other features the latest tpq of 130/120 BC (US1104). The easier reading is certainly that the amphora installation belonged to an earlier phase and was obliterated by the construction of the baths. But the other scenario cannot be excluded based on the stratigraphy: construction of the baths, including the amphora, after 150 BC, with completely unknown use of the terrain to the S and W of the laconicum; large-scale remodeling of this area sometime after 130/120 BC, which would have included the (costly?) insertion of niches into the southern façade of the laconicum and the installation of two separate courtyards (18 and 19), a portico, cistern(s), and related floors.

110 The area was very small for a palaestra (cf. the original palaestra of the Stabian Baths with c. 20 × 40 m, see below) but the differentiation of floors in rooms 18 and 19, the accessibility from the well-decorated corridor 5, the niche(s), and the well-made channel suggest that it was still conceived as a space that was better endowed than the service space in 18 because it was conceived for use by male bathers. The E portico could have covered the entire space to the E façade of the baths, resulting in a width of c. 4.20–4.30 m here, similar to the original E portico of the Stabian Baths. Or it could have been bordered by a room or rooms in the area of R38 and R44 that was or were aligned with room 20. In this case, the E portico would have been only 90–100 cm wide, in continuation of the equally wide corridor 5. The area to the E of the portico, with a size of 3.50 m EW × 6.90 m NS, could have been occupied by an exedra that would have visually and spatially enlarged the narrow portico and could have served for multiple activities related to bathing and training. For example, this room could have been received as a destrictarium. The palaestra of the Stabian Baths was provided with additional rooms in 3 of its 4 major phases (from 130/120 BC to AD 62), among these laconica and at least one destrictrarium (if not several destrictaria). The space to the E of

74 Simelius 2018, 324 cat. 248. Cf. Also Simelius 2022 which is a revised version of Simelius 2018, with the catalog published in an online appendix.

75 Simelius 2018, 86.

the portico is called room 21 here, but not discussed separately, since nothing survives to further assess its design and function.

111 The wall US1524 in Areas 37 and 41 can be assigned to the first phase of the garden peristyle (phase 3), and US22 and US1523 in all three areas to its second phase (phase 4). The finds from the respective strata (US1513) provide only a broad tpq of the 1st c BC at the latest. Furthermore, the wall US1106 must already have been razed and covered in phase 3, thus the fills in Area 41 (US1103/1107/1111) should belong to this phase, and they provide a tpq of the third quarter of the 1st c BC for phase 3. A trench was presumably dug in this fill in phase 4 to build the wall US1525.

Room 20

112 This was possibly the porter's lodge (cella ostiaria) of the men's section, with a size of 2.75 m EW × 3.85 m NS. It does not include any doors on Maiuri's plan (Figs. 2. 3). Since the room was used as a deposit for stones and debris since 2015, it was, unfortunately, never fully explored.

113 The N wall and original W wall were razed to floor level, but a travertine threshold of 0.85 m width with jambs can still be identified in the N wall (see room 1 above). The currently visible W wall goes back to phase 3 and was built to support the E stylobate of the garden peristyle. The E wall includes two travertine blocks that are particularly well visible from the exterior, right in the SE corner of the room. These seem to belong to the S jamb of a door that was later blocked. Further N, the E façade is much disturbed and no N jamb survives, but a corresponding gap can cautiously be identified c. 1 m to the N of the S jamb. Therefore, the room may originally have been provided with a direct entrance from the street. The door would, however, have been too narrow and strangely located for a taberna. The room seems generously sized for a porter's lodge but it could also have served to store utensils used for bathing and training in the palaestra, or the porter could even have slept here. With a separate door from the street, and a door to the men's vestibule, the servants could have entered the room without disturbing the bathers.

Reconstruction and Urban and Socio-Cultural Context

Based on all data discussed above, the two phases of the baths are reconstructed as follows (Figs. 10. 11).

114 The baths were built after 130/120 BC (Tab. Suppl. 3; Fig. 8). This is suggested by coins from strata in three different areas that have been attributed to the original baths here: Area II,1, US517; Area 22, US1610/1611; Area 41, US1104. The pottery provides a slightly earlier tpq of 150 BC, with the strata US619 in Area II,2 and US 1510 in Area 37, and possibly US13 in Area I. Most other finds from phase 1 layers provide even earlier dates (from the 4th c BC to 175 BC), and only the finds from a fill under the opus signinum floor in the women's apodyterium (Area 5, US2109) are dated broadly to the 2nd c BC. The material, technique, and typology of the walls are perfectly compatible with a construction date in the last quarter of the 2nd c BC. The different floor types and the simple wall decoration schemes also find parallels in Pompeian contexts dated to this period[76].

115 Ultimately, the construction date proposed by Pesando was confirmed here on broader and securer grounds. The Republican Baths were thus built at the same time as the Stabian Baths[77].

76 For comparisons and references, see above n. 33. 35.

77 Trümper et al. 2019.

116 The terrain had been used before, but only water features and features that may stem from activity (fuel ash, the soak-away amphora?) survive. These, however, do not provide sufficient information to determine the design and function of the lot. The terrain was most likely bought by a private investor, possibly the owner of one of the adjacent houses, who had to respect the strangely irregular W border of the lot. On a lot of 680 m^2 the patron/builder constructed a state-of-the art bathing facility with a very clever and carefully planned design. It included separate sections for men and women as well as for service, which were all three accessible from different streets so that unwanted encounters could be avoided. The men's section was privileged in location, size, shape, bathing program, bathing temperature, and decoration. Only in this section, a hierarchy was established through the sophistically planned decoration program, singling out the entrance, the apodyterium, and the caldarium. The women's section was more secluded, accessible from the remote narrow alley, but still provided with the core bathing rooms.

117 The standards provided by the Republican Baths can only be fully assessed when comparing them to that of other contemporary baths. While not many examples of the 2nd c BC are sufficiently known[78], most of them did not include separate sections for women and men, and the best comparison is certainly provided by the nearby Stabian Baths (Fig. Suppl. 55). Focusing on the local comparison, significant criteria are summarized in a table and discussed in the following (Tab. Suppl. 5). Although the original Stabian Baths were 3.5 times as large as the Republican Baths, both baths provide conspicuously similar standards. Both stand out because of the presence of laconica, palaestrae, and hypocaust floors in several rooms. In the Stabian Baths, everything is a bit bigger, more elegant and sophisticated, more ostentatious and eye-catching. The location of the Stabian Baths at the city's major crossing and the tabernae will have attracted more crowds, and the various sections could be entered from three different streets via seven entrance portals of which five were made of Nocera tuff and finely decorated with moldings. The multiplication of clearly hierarchized entrances facilitated circulation and accessibility that may have been differentiated according to users, bathing hours, and urban circulation, and the rich decoration inspired aesthetic pleasure and an ambience of luxury. While the three entrances of the Republican Baths were also carefully positioned at three different streets, they were much more simply framed with travertine blocks.

118 Similar differences pertain to the bathing rooms and the technological standards. The palaestra of the Stabian Baths had a size of 20 × 40 m vs. only 7.35 × 6.50 m, and most likely included three porticoes with elegant Doric columns of Nocera tuff vs. one portico with simple travertine piers in the Republican Baths. The water reservoir of the Stabian Baths had a capacity of 38 m^3 vs. only 8.5 m^3, and could be filled with a much larger tread wheel providing room for two workers and operating two bucket chains, instead of a tread wheel operated by one worker and provided with only one bucket chain in the Republican Baths. Heide calculated that the one worker could have filled the reservoir of Republican Baths in 9.5 h, while the two workers in the Stabian Baths achieved the same for a much larger reservoir in less than 9 h. Since the capacity of the water-using bathing features did not differ that significantly in both baths – calculated with 5.2 m^3 for the original Republican Baths vs. 7.2 m^3 in the original Stabian Baths – the bathing features could have been provided with fresh water much more frequently in the Stabian Baths: five times with one daily fill of the reservoir vs. one and a half

78 For a recent assessment of late Republican Baths in Italy, with reference to earlier literature, Trümper 2022: contemporary or older and sufficiently known are the baths at Fregellae, Musarna, Norba, Solunto (N and S baths?), and the Stabian Baths at Pompeii. Several baths are known from Spain and S France that do not greatly change the picture, however.

times in the Republican Baths[79]. This must have had a major impact on the quality of the bathing water and the bathing experience and on the number of bathers who could enjoy the water-using features with fresh water.

119 While the heating system must have been crucial for the quality and experience of bathing, this cannot be comparatively evaluated because the original hypocaust floor systems and praefurnium/praefurnia of the Stabian Baths are not known[80]. However, the men's tepidarium of the Stabian Baths also offered the luxury of a hypocaust floor which was lacking in the equivalent of the Republican Baths. Other significant features like the wall niches in bathing rooms or the vaulting and roofing systems can also not be evaluated because evidence of these is missing in the Republican Baths. The width of the walls suggests, however, that both features were simpler in the Republican Baths: they may not have afforded the innovative opus caementitium vaults and richly decorated niches framed with molded Nocera tuff blocks that characterize the bathing rooms of the Stabian Baths.

120 One could assume that the differences between the two baths are chronological and that the Republican Baths are simply older than the Stabian Baths. But stratigraphy now confirms that both were built after 130/120 BC and thus potentially contemporaneously[81]. The differences between the two baths have been explained with private vs. public ownership, and this theory has now been corroborated once more by the simultaneous construction of both complexes[82]. That the Stabian Baths were built at public initiative is suggested by inscriptions relating to the original construction and later remodeling, as well as by location, size, decoration, and their history, because they were constantly maintained, remodeled, and modernized until AD 79. In contrast, not only the location, size, and decoration, but also the lack of dedicatory inscriptions and later history speak for private patronage in the case of the Republican Baths.

121 Several changes were identified by the survey of architecture and decoration as well as excavations. They cannot all be securely dated and assigned to one single coherent remodeling program for several reasons. While mostly only two phases could be differentiated, three have been discerned in the praefurnium area. Not all changes can be connected spatially, functionally, or by stratigraphy. However, some well-founded assumptions can be made, which is why a reconstructed plan of phase 2 is presented here (Fig. 11).

122 Since the original praefurnium with its six fires probably did not work very well, and the crucial heating of water may have provided particular problems, it seems possible that first changes in the praefurnium were very quickly made, in a phase 1b. This cannot be dated any closer because none of the strata excavated in Area III comprised diagnostic finds.

123 All other changes can be attributed, with more or less confidence, to one phase, which has been called phase 2 here: a) the remodeling of the praefurnium to provide testudines and (new?) cauldrons for the caldaria; this had consequences for heating the rooms that are hard to evaluate; b) the enlargement of the deep well and improvement of the water lifting device; c) the stabilization of the W wall of the laconicum with three buttresses and the insertion of the NW niche; d) the enlargement of the socles of both labra possibly rather to stabilize the widely protruding basins than to install new larger and more fancy basins; e) the renewal of the pavement in the men's pool.

124 The simultaneous remodeling of the deep well and laconicum can be corroborated with structural arguments: a very deep trench must have been made for rebuild-

79 Heide 2021; Heide 2023, 180 f. 452. 458.

80 Trümper et al. 2022.

81 For the construction date of the Stabian Baths, based on recent excavations, Trümper et al. 2019.

82 Trümper 2018; Trümper 2022, 273–276.

ing the entire E half of the deep well, and this may have entailed static problems for the adjacent laconicum. The strange course and build-up of the laconicum walls (with rectangular courses of the foundations in the N half; strangely attached circular interior faces in the N; round walls in the S; and overall astonishingly thin walls in the middle of each side) suggests that the builders did have few or no models for this innovative shape and had to experiment with its implementation. This is confirmed by the first laconica of the Stabian Baths which show similar and rather unfortunate characteristics[83]. Therefore, it is possible that the laconicum walls had to be fortified and the roof maybe even to be renewed. Whether structural problems of the laconicum were used to also improve the deep well, or vice versa, must remain open. Improving the size of the well and reservoir as well as the capacity of the lifting mechanism may have motivated patrons to also modernize the praefurnium and the operation of the pools as well as the labra[84]. Since the new lifting mechanism was twice as efficient as the previous one and the reservoir was presumably much larger, water in the bathing features may now have been changed as frequently as in the Stabian Baths[85]. The pavement of the men's pool may naturally have been renewed at any time, which will not have required major logistical efforts. It seems rather a practical measure: maybe the surface of the original pavement was partially destroyed, when concretions were removed and was therefore simply renewed[86].

125 Several strata were attributed to phase 2 here, but they do not provide a very precise tpq for phase 2. The latest tpq is the 1st c BC, from fills of pits next to the laconicum (Area I, US34/36, US16/17). While the thin-walled ware from these fills is hard to date precisely, it probably does not belong to the first decades of the 1st c BC (Fig. 8: tab. 4). A typological argument also suggests that the remodeling was initiated after 80 BC when Pompeii became a Roman colony. The NW niche of the laconicum may have been added as a fashionable feature in competition to standards provided in other local baths: when the Stabian Baths were remodeled after 80 BC, they were equipped with a new fancy laconicum with four symmetrically organized semi-circular niches in the corners. Similarly, the Forum Baths, newly built after 80 BC, were immediately endowed with such an elegant laconicum. Thus, the patron of the Republican Baths may have felt compelled to modernize the laconicum of his establishment and to maintain its attractiveness and profitability.

126 If the substantial, overall modernizing phase 2 could thus be dated to the period after 80 BC, this would challenge Pesando's assumption that the Republican Baths were a largely neglected and somewhat derelict and marginalized bathing facility after the change of the political government[87]. If the Republican Baths were privately owned and managed, as argued here, and not built by the Samnite community as part of an athletic and military complex for the city's male and female youths, as argued by Pesando, the baths never served as a political-social symbol and ideologically charged arguments can no longer be advanced. Inscriptions show that the Roman colonists had significant impact on the development of bathing culture in Pompeii, but rather in terms of numbers and capacity than technology and bathing standards, let alone politically motivated preferences[88]. Thus, the Stabian Baths were remodeled, including repairs and modernizations, and the Forum Baths were newly built, both at the initiative of

83 With even thinner walls in the middle of each side; Trümper et al. 2022, 198 f.; Trümper et al. 2024, 8.

84 If these could really have been provided with larger basins at any point, without destroying walls or doors; see above.

85 Heide 2021, 247.

86 That concretions were removed from the floor is obvious from the fact that no concretions are visible between the two floors while the upper one is set against thick concretions on the walls (Fig. 22).

87 Pesando 2002/2003.

88 Trümper 2022, 273–276. For the development of public/publicly accessible baths in Pompeii, Trümper 2025.

duoviri[89]. There was obviously more need for publicly accessible baths because the size of the population may have increased or at least more people wanted to frequent and enjoy the baths. Within this frame and historical setting, instead of being overlooked and forgotten, the Republican Baths, seem to have functioned successfully and profitably until the early Imperial period.

127 The stratigraphy also made it possible to more precisely date the abandonment of the baths. The latest tpq for phase 3 is provided by fills that served to raise the floor levels, in R5/Area 5 (US2105, late 1st c BC), and in R41/Area 5 (US 1103, third quarter of the 1st c BC). This is confirmed by the Second Style wall painting that was found in several rooms of the phase 3 complex, R4/R6[90]; the portico of the main peristyle of the Casa della Calce, R2[91]; and the SW corner room of the garden peristyle, R34 (Fig. Suppl. 1)[92]. Additional arguments are the absence of certain standards that became available in the early Imperial period and can be observed in other Pompeian baths: the connection to the new public aqueduct, the installation of frigidaria, and the modernization of heating systems with pilae and tegulae mammatae[93]. It is hard to evaluate what may have motivated the owner of the baths to sell or reuse the terrain for other purposes around 30/20 BC, but different scenarios can be envisioned. Economic reasons may have played a role: the remodeling that may have been required to update the baths and keep them sufficiently attractive and competitive within the local sphere may have been too costly; this would, for example, have necessitated a complete overhaul of the heating system, and consequently complete redecoration of floors and walls, and would have entailed paying for private access to the public aqueduct. The owner may not have had sufficient funds for such an enterprise or may have decided that the expected income would not have justified such an expense. Other reasons may apply, however, and owning a garden peristyle may have become so important that the baths were sacrificed for this purpose: if one and the same patron owned both the Casa della Calce and the baths, he could have transformed his own property; if owned by different persons, the patron of the Casa della Calce may have offered significant amounts of money to buy the terrain of the baths and enlarge his house. In any case, bathing culture still thrived in Pompeii in the early Imperial period. Not only were the Stabian Baths and Forum Baths connected to the aqueduct and significantly modernized, but new publicly accessible establishments were built, providing new fashionable standards. All of these must have operated profitably, private or public ownership notwithstanding[94].

128 Broader tpq are furnished for phases 4 and 5: the fill of the construction trench for the second S stylobate of the garden peristyle in Area II,2 and Area 37, constructed in phase 4, included material dated to the end of the 1st c BC (US603) and the 1st c BC (US1513), respectively[95]. The large quarry pit in Area 25/room 2 (US1301) has been attributed to phase 5 here, its fill providing a tpq of the Augustan period.

129 In sum, for about 100 years, the Republican Baths served as a neighborhood bath complex that must have been sufficiently fashionable and profitable for a long time. While the Stabian Baths, and to a lesser extent also the Forum Baths, were continuously remodeled and improved until AD 79, and new baths were built in the early Imperial period and even after the earthquake of AD 62, the Republican Baths were the

89 CIL X 819. 829.

90 Trümper 2020a, 163 fig. 11: room II.

91 Trümper 2020a, 163 fig. 11: room 11; here Fig. 3: R2; PPM VIII, 611: room b.

92 Trümper 2020a, 163 fig. 11: room XII.

93 Trümper 2018; Trümper 2020a, 162 f.; Trümper 2025.

94 Trümper 2025, n. 63: this regards particularly the Suburban Baths that may have been privately owned, while the construction date of other (privately owned) complexes, like the Sarno Baths, Palaestra Baths, and Praedia Iulia Felix Baths, remains to be clarified.

95 Similarly, finds from US1403 in Area 12, attributed to phase 4, but not discussed here, provide a tpq of the 1st c BC.

only example that was abandoned and replaced by private domestic buildings. They represent, in an exemplary manner, changing economic and social conditions and the constant negotiation between public and private interests. Changes of ownership and function, in correlation with the changing functional and socio-cultural significance of the urban context, will have been common in Samnite and Roman Pompeii. However, they can rarely be reconstructed as well as in lot VIII.5.36. Furthermore, the Republican Baths serve as a key example in the small corpus of known Late Republican Baths, and only the Stabian Baths allow for a similarily comprehensive assessment of the development of Late Republican and early Imperial period bathing culture, albeit with a more extended longue durée perspective.

Supplementary Material

130 The supplementary figures are available in iDAI.objects; the supplementary tables in the data repository iDAI.repo (both accessible via https://doi.org/10.34780/v89xxw20).

Acknowledgments

131 We would like to thank all institutions and persons that generously supported our project from the beginning, above all the Parco Archeologico di Pompei with its directors Massimo Osanna and Gabriel Zuchtriegel and their colleagues, as well as the Ministero della cultura. The campaigns were generously funded by the Excellence Cluster Topoi and by the Freie Universität Berlin and the University of Oxford. We are much indebted to the entire team and many students from different international universities who excavated with us and whom we cannot all list by name here. We would like to particularly acknowledge Jens-Arne Dickmann, Jennifer Hagen, Thomas Heide, Alexander Hoer, Catello Imperatore, Dominik Lengyel, Sebastiano Muratore, Cees Passchier, Jenny Robinson, Christoph Rummel, Gül Sürmelhindi, Catherine Toulouse, and Kristina Zielke. Special thanks are owed to the anonymous reviewers for helpful feedback.

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CONTACT
Prof. Dr. Monika Trümper
Institut für Klassische Archäologie, Freie Universität Berlin
Fabeckstr. 23–25
14195 Berlin
Germany
monika.truemper@fu-berlin.de
ORCID-iD: https://orcid.org/0000-0003-4524-6242
ROR ID: https://ror.org/046ak2485

Dr. Domenico Esposito
Institut für Klassische Archäologie, Freie Universität Berlin
Fabeckstr. 23–25
14195 Berlin
Germany
archeomimmo@hotmail.com
ORCID-iD: https://orcid.org/0000-0002-8695-8126
ROR ID: https://ror.org/046ak2485

Prof. Dr.-Ing. Clemens Brünenberg
Fachbereich Architektur, Fachgebiet Klassische Archäologie, Technische Universität Darmstadt
El-Lissitzky-Str. 1
64287 Darmstadt
Germany
bruenenberg@klarch.tu-darmstadt.de
ORCID-iD: https://orcid.org/0000-0002-0253-7413
ROR ID: https://ror.org/05n911h24

Dr. Antonio F. Ferrandes
Sapienza – Università di Roma
Ex vetrerie Sciarra – Via dei Volsci, 122
00185 Roma
Italy
antonio.ferrandes@uniroma1.it
ORCID-iD: https://orcid.org/0000-0001-7356-9060
ROR ID: https://ror.org/02be6w209

Prof. Dr. Giacomo Pardini
Dipartimento di Scienze del Patrimonio Culturale, Università degli Studi di Salerno
Via Giovanni Paolo II, 132
84084 – Fisciano (SA)
Italy
gpardini@unisa.it
ORCID-iD: https://orcid.org/0000-0002-6696-887X
ROR ID: https://ror.org/0192m2k53

Dr. Alessandra Pegurri
Sapienza – Università di Roma
Ex vetrerie Sciarra – Via dei Volsci, 122
00185 Roma
Italy
alessandra.pegurri@uniroma1.it
ORCID-iD: https://orcid.org/0000-0002-8326-2078
ROR ID: https://ror.org/02be6w209

Prof. em. Dr. Mark Robinson
St. Cross College, University of Oxford
St. Giles
Oxford OX1 3LZ
United Kingdom
mark.robinson@oum.ox.ac.uk
ORCID-iD: 0000-0001-6043-7579
ROR ID: https://ror.org/052gg0110

METADATA

Titel/*Title*: Republican Baths at Pompeii. New Research on the Development and Function

Band/*Issue*: 2024/2

Bitte zitieren Sie diesen Beitrag folgenderweise/*Please cite the article as follows*: M. Trümper – D. Esposito – C. Brünenberg – A. F. Ferrandes – G. Pardini – A. Pegurri – M. Robinson, Republican Baths at Pompeii. New Research on the Development and Function, AA 2024/2, § 1–131, https://doi.org/10.34780/v89xxw20

Online veröffentlicht am/*Online published on*: 05.05.2025

DOI: https://doi.org/10.34780/v89xxw20

Schlagwörter/*Keywords*: Pompeii, Insula VIII.5, Republican Baths, urban development, Late Republican bathing culture