A design for life

The lived experience of the Roman bar Paula Lock

Abstract

Ancient Roman bars are one of the more obvious aspects of commercial activity in the urban environment. The archaeological remains and the written evidence are testament to their central role in the economic and social life of the city. From the lower classes who frequented them on a daily basis to the elite who vehemently disparaged them, they were an important part of everyday life. However, these establishments are, in many ways, only superficially understood, an issue this thesis aims to correct. Through a detailed assessment of remains at Pompeii, Herculaneum and Ostia, I rationalize bar design, decoration, spatial layout and physical distribution. Taking a multidisiplinary approach, this study uses fieldwork and a comprehensive survey of the archaeological remains, along with mining of the ancient literature and analysis of the iconographical evidence to gain new insights into commercial design practices.

Pushing beyond existing scholarship, this thesis investigates the sensory experience of the bar to get a detailed picture of the lived experience. With the development of new methodologies, such as sensory profiling, I bring fresh analytical tools to the study of the senses to uncover as yet untapped knowledge streams to provide a nuanced understanding of non-elite culture. The result is a fresh perspective on this key component of Roman life that puts the people back into the ancient ruins and considers the sights, sounds, tastes and smells ordinary Romans experienced on a trip to a bar.

This study reveals that it is possible to track and identify decisions made by the ancients regarding the design and layout of the bar and that, although there are core features common to all of the bars, there are also clear local and temporal variations. An investigation of the ergonomic practicalities of the design provides insight into how the bars functioned and demonstrates that often fixtures and fittings were not optimised for comfortable working conditions. This study also finds that, contrary to the elite portrayal of the bars as 'greasy cookshops', their sensory landscape was in fact varied, differing from bar to bar and across the three sites.

This research provides a framework upon which the literary and archaeological data can be interrogated to gain insights into the commercial landscape and urban development. Furthermore, the application of sensory profiling and fingerprinting offers an objective foundation that has the potential to significantly broaden and enrich our understanding of many aspects of the Roman world and, indeed, many other contexts.

A thesis submitted in fulfilment for the requirements for the degree of Doctor of Philosophy

Department of Classical & Archaeological Studies

The School of European Culture and Languages

The University of Kent

2018

Word count: 99,953



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I dedicate this thesis to those no longer with us, who encouraged me along the way, but sadly are not here to see the finished result.

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ABBREVIATIONS

The abbreviations used in this thesis follow *The Oxford Classical Dictionary*, 4th Edition. Additional abbreviations used throughout the thesis are listed below.

BdI — Bulletino dell'Instituto di Corrispondenza Archeologica

BullNap — Bulletino Archeologico Napoletano

BdA — Bollettino d'Arte

BABesch — Annual Papers on Mediterranean Archaeology

GdS — Giornali degli Scavi

NSc — Notize degli scavi di antichità

RivStPomp — Rivista di Studi Pompeiani

PPM — Pompei: pitture e mosaici I-X

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All images are by the author unless otherwise stated.

Maps

Pompeii: Laurence, *Roman Pompeii: Space and Society*, map 5.3; Dobbins and Foss, *The World of Pompeii*, CD.

Herculaneum: Pompeii, Herculaneum, Vesuvius, Kina Italia.

Ostia: E. Boast; I. Gismondi, (https://www.ostia-antica.org/map/plans-so.htm).

INTRODUCTION

Dispatch your lieutenant to Ostia, Caesar, but first look for him in a huge—diner. You'll find him reclining next to some hit man, mingling with sailors and thieves and runaway slaves, among executioners and coffin-makers and the now silent tom-toms of a priest sprawled flat on his back. There, it's "freedom" for all alike, shared cups. There, no one gets a separate couch or a table set apart.¹

...I should have to go sorrowfully to damp inns and groan again and again as I stop both nostrils by reason of the many smoky kitchens where, in dishes garnished with thyme, the red sausage exhales odours amid the twin berries, or where clouds of smoke mixed with steam of pots rise up amid the clattering of plates. Here, when a feast-day has begun to excite hoarse songs and to resound with the popular plaints of the buffoons, then, yes then, aroused by the muse of my tipsy host, I shall become a worse barbarian than they, and murmur strains more worthy of you.²

If the contemporary elite writers are to be believed, Roman bars were noisy, dingy dens of drunkenness, gambling, prostitution and brawls.³ Places where over-diluted wine and greasy food were served up in an atmosphere thick with smoke to a clientele best described as reprobates.⁴ Today, this portrayal pervades much of the modern literature and scholars show little inclination to challenge the reliability of these

¹ All Latin texts use the Loeb Classical Library translations unless otherwise stated. Juv. 8.171-178, trans. Susanna Morton Braund, 2004.

² Sid. Apoll. Epist. 8.11.3, trans. W.B. Anderson 1965.

³ **Noise:** *Dig.* 47.10.15.8; Hor. *Espist.* 1.14.21–26; Philostr. *V A*, 4.42; Sid. Apoll. *Epist.* 8.11.3; Sid. Apoll. *Epist.* 8.11.31. **Dingy:** Cic. *Pis.* 18; Hor. *Ars P.* 229; Plaut. *Poen.* 835. **Drunkenness:** Sid. Apoll. *Epist.* 8.11.3; Plaut. *Trin.* 1013. **Gambling:** Cic. *Phil.* 13.24; Columella, *Rust.* 1.8.2; Gaming scenes from Pompeii VI.14.35-36, VI.10.1 (Figs 7.28a, b). **Prostitution:** *Dig.* 3.2.4.2.4; *Dig.* 23.2.43.pr; *Dig.* 23.2.43.9; *CIL* IV 4295; *CIL* IV 8442; *CIL* IV 4260, *CIL* IV 8454. **Brawls:** scenes from Pompeii VI.10.1 (Fig. 7.28c).

⁴ Auson. Mos. 115; Columella, Rust. 1.8.2; Juv. 8.171–178; Sid. Apoll. Epist. 8.11.3; CIL IV 3948.

assertions.⁵ This thesis aims to cut through the hyperbole to examine the lived experience of Roman bars and to determine their 'real' role in daily life. The ancient Roman bars are one of the more prominent aspects of commercial activity in the urban landscape. The archaeological remains and the contemporary written evidence are testament to their central role in the city's economic and social activities. From the lower classes who frequented these establishments on a daily basis to the elite who vehemently disparaged them, the bars were an important part of everyday life.⁶ Modern scholarship has tended to focus on the archaeological remains and the biased elite texts to paint a picture that is far from complete, and as such the bars are, in many ways, only superficially understood. This thesis aims to redress the balance, furthering our understanding of Roman food and drink outlets by examining aspects of these establishments that have not yet been fully explored, such as the design of the bars, and the way in which people experienced them.

The design and organisation of the retail space is at the heart of the way the bars functioned, and helped determine how people interacted with them. In this thesis, I will probe the design concepts — the criteria proprietors used to determine the spatial layout — and map the way staff and customers navigated the space and used the fixtures and fittings, to gain fresh insight into commercial retail practices. Through a comparative study, I will tackle the issue of geographical and temporal changes in design to uncover the extent to which the Romans had a set template for the configuration of their bars. As well as extending our understanding of the design and function of commercial space, I shift the focus by developing the study of the senses in the field of classical and archaeological studies — on which much has recently been published. I will examine how a sensory approach might be applied to a particular urban setting and aim to uncover what it was like to visit or work in a Roman bar. The elite writers have much to say on the subject, associating the bars with a particular (negative) sensescape, which I argue is orchestrated to highlight class divisions and foster the feeling of superiority among the minority.

⁵ For example, see J. P. Alcock, *Life in Ancient Rome* (Stroud, Gloucestershire: History Press, 2010), 149-150; G. S. Aldrete, *Daily Life in the Roman City: Rome, Pompeii and Ostia* (Westport, Conn.: Greenwood Press, 2008), 192; J. P. V. D. Balsdon, *Life and Leisure in Ancient Rome* (London: Bodley Head, 1969), 152-154; J. Carcopino, *Daily Life in Ancient Rome: The People and the City at the Height of the Empire*, ed. H. T. Rowell, (Harmondsworth: Penguin, 1991), 276-278; L. Casson, *Travel in the Ancient World* (Baltimore, MD: Johns Hopkins University Press, 1994), 206-218; F. R. Cowell, *Life in Ancient Rome: Absorbing Social History — a Vivid Portrait of a Magnificent Age* (TarcherPerigee, 1976), 140-141; I. G. Giacosa, *A Taste of Ancient Rome*, trans. A. Herklotz (Chicago: University of Chicago Press, 1994), 207-210; R. C. Knapp, *Invisible Romans: Prostitutes, Outlaws, Slaves, Gladiators, Ordinary Men and Women — the Romans That History Forgot* (London: Profile Books, 2011), 49, 248-250.

⁶ For bars linked to the lower classes, see G. G. Fagan, "Leisure," in *A Companion to the Roman Empire*, ed. D. S. Potter (Oxford: Blackwell, 2006), 374; J. P. Toner, *Leisure and Ancient Rome* (Oxford: Polity, 1995), 74–75.

Through a detailed assessment of the remains at Pompeii, Herculaneum and Ostia, this thesis will not only rationalize bar design and the sensory experience, but also examine the physical distribution of these outlets to consider wider issues of Roman urbanism. Exploring distribution patterns, and creating smell and sound maps offer new ways to assess the cityscape and gain a more nuanced picture of city planning and the lived experience. With the development of new methodologies, such as sensory profiling, I aim to bring fresh analytical tools to the study of the senses that can be applied to a wide variety of disciplines. The study uses fieldwork and a comprehensive survey of the accessible archaeological remains, along with mining of the ancient literature and analysis of the iconographical evidence. Using a multidisciplinary approach and drawing on all of the available evidence, the study pushes beyond existing scholarship by collecting data on smells, sounds and taste that directly link to the bars to uncover the sensory landscape.

The decision to survey Pompeii, Herculaneum and Ostia was based on the overall good preservation of the bars and the need to do a comparative study. Including Ostia in the survey offered the opportunity to examine the remains of bars installed at a later date than Pompeii and Herculaneum, and so assess design changes that took place over time. As the surrounding buildings in these cities are also often in good condition and include other identifiable businesses, they offer rich data through which to put the bars into the context of the urban environment and to consider how they integrated from the point of view of the *sensorium*. Throughout this thesis I argue that, contrary to the portrayal by the elite authors, the bars were not one-dimensional dens of iniquity, but that they had a far more important role in the urban and economic landscape than has previously been thought. I will further demonstrate that the decisions made when designing and planning the bar's fixtures, fittings and spatial layout were inherently linked to how customers and staff experienced the space and that this experience varied across the three sites.

The material for this study is organised into three main sections. The first focuses on an overview of the work undertaken so far by scholars. The second investigates the design and spatial layout of the bars and examines the functionality and practicality of the commercial space. The third looks at the sensory experience of the bars. The first chapter reviews existing work on food and drink outlets. Although a lot of research has been done on urban city space, my review reveals that few modern scholars have attempted to understand the value of the bars within Roman society, despite the prominence of these outlets in everyday life. When bars are mentioned as part of the urban landscape, the biases of the literary sources tend to be taken at face value, which means that they are portrayed in a less than favourable light. As a result, much of the modern literature paints a picture of the bars that lacks a nuanced understanding. My review of the literature also found that, so

far, there has been no attempt to understand the sensory experience of the bars' staff and clientele. Although phenomenological studies within the Classics are growing, there are still many areas to explore, and the bars are ideal candidates for such work, offering a chance to gain a fresh perspective on the lived experience of the non-elite.⁷

Chapter 2 outlines the methodologies deployed to analyse the bars to establish their design, function and lived experience. I detail my methods for collecting data, which included fieldwork, on-site sensory experiments and the analysis of the ancient literature, epigraphical and visual evidence. The resulting data formed the basis of my comparative analysis of the spatial layout of the bars as well as of the fixtures and fittings. I describe how these data enabled me to make ergonomic comparisons with modern guidelines to get an insight into the practicalities of Roman design. The methodologies used by previous scholars who have researched bars are reviewed and I outline the extent to which I was able to build on their methods to develop my own approach. The limitations of the study — which included access permissions and the current poor condition of some of the remains — are also highlighted.

The third chapter considers the modern and ancient terminology used to describe the food and drink outlets and examines the issues of identifying the bars in the archaeological record. I begin by discussing the terms used by modern scholars to denote these establishments and note the ambiguity and lack of consensus of opinion as to which term is the most appropriate. I also review the work of Kleberg who produced a study of the range of words used by the ancients to describe food and drink outlets. I highlight that although the texts enable us to identify differences in the services offered by the various establishments, matching the terms to the archaeology is no easy task. The second half of the chapter reviews the typologies and the identification of the bars in the archaeological record.

Chapter 4 begins the assessment of the design and spatial layout of the 97 bars included in this study, with an overview of the core elements that characterise a food and drink outlet. These features include the service counter, storage space and cooking facilities. The differences in hearths, counter shape and size are identified to chart the changing design trends across the three sites. Counter heights are examined and compared with modern examples to test their ergonomic practicality. The different forms of fixtures

⁷ Some of the areas explored so far that are relevant to my work (methodologies/subject matter) include, J. Day, "Scents of place and colours of smell: Fragranced entertainment in Ancient Rome," in Betts, *Senses of the Empire*, 176–92; T. J. Derrick "Sensory archaeologies: A Vindolanda smellscape," in Betts, *Senses of the Empire*, 71–85; M. Flohr, "Beyond smell: The sensory landscape of the Roman *fullonica*," in Betts, *Senses of the Empire*, 39–53; A. O. Koloski-Ostrow, "Roman urban smells: the archaeological evidence," in *Smell and the Ancient Senses*, ed. M. Bradley (London: Routledge, 2015), 90–109; D. Potter, "The Scent of Roman Dining," in Bradley, *Smell*, 120-132.

and fittings are also assessed, and an attempt is made to establish their function within the retail environment.

The next chapter offers a detailed analysis of the retail space. Splitting the bars into quartiles — determined by the size of the main bar room — it analyses establishments of similar proportions and highlights differences throughout the quartile ranges. This categorisation allows meaningful comparisons of the layouts and spatial arrangements to be made across the three sites. I interrogate the data to try to uncover the thought processes behind the decisions made about the layout and to consider how customers and staff would have navigated their way around the shop. The decoration and religious features are also examined.

Chapter 6 puts the bar room in context and examines the rooms that were connected to the main service area to consider how and if they were related to retailing activities. As well as being able to cater for a larger number of customers, opening up additional rooms would have significantly changed the experience compared with a single-room establishment, offering greater or lesser degrees of privacy as well as different sensory environments. Clearly, the bar room cannot be studied in isolation if we are to get a true picture of how these outlets operated. In larger premises, serving staff, in particular, would have been affected by the access routes throughout the bar, the efficiency of which can be determined by plotting potential routes onto floor plans.

Chapter 7 draws on the archaeological remains, ancient literature, graffiti, artefacts and imagery to give the collected data context and to elucidate the lived experience further. In the first half of the chapter, I focus on the interior of the food and drink outlets. As well as determining what smells, sounds and tastes would have been experienced in the bars, I also consider attitudes to these various stimuli. For example, I scrutinize the views expressed about the food and wine, latrines, and human odours. The second part of the chapter examines the bars within the context of their urban environment. I consider how the street architecture, such as kerb-side holes and water fountains, would have affected the sensory experience of both staff and clientele and assess the extent to which the sounds and smells of passers-by infiltrated the open-fronted bars. Other identifiable trades — such as bakeries, tanneries and those associated with the textile industry — are investigated to assess the extent to which they would have influenced the sound- and smellscape of the streets, and the bars in close proximity.

In chapter 8, I bring together all of the evidence amassed thus far to build up a picture of what a Roman bar was like. I plot the various smells and sounds onto sample floor plans to assess how the sensory experience of

⁸ The method of dividing space into quartiles based on ground area was pioneered by Wallace-Hadrill, see A. Wallace-Hadrill, *Houses and Society in Pompeii and Herculaneum* (Princeton: Princeton University Press, 1994), 80–82.

customers and staff would have changed as they moved through the space and how this might have differed geographical and temporally. Having evaluated the internal environment of the bars I shift the focus onto the external sensory landscape and map the bars along with the various other trades to evaluate distribution patterns and to evaluate if and how the smell- and soundscapes altered throughout the cities.

The study of the bars — as opposed to other prevalent building types such as temples, houses or baths — is important because it offers the chance to gain insights into ancient retail practices and the daily lives of the non-elite staff and clientele; people who largely lack a 'voice' in the historical record. This thesis aims to use new data to build on existing scholarship to produce a deeper, more nuanced understanding of ancient Roman bars, revealing the thought processes behind the design and configuration of these retail spaces. It also seeks to add to the rapidly expanding body of sensory research by reconstructing the lived experience of these establishments and putting them in context with their broader surroundings. As part of this, it will establish a template for the further research and characterisation of archaeological remains through an objective sensory framework. As such, it ultimately aims to repopulate the ancient streets and bring us closer to the everyday Romans who ate and drank in the bars and to understand how these establishments really were designed for life.

1. LITERATURE REVIEW

1.1 The bars

Although much has been written about Roman urbanism and the ancient economy, the retail landscape has tended to be somewhat overlooked. This is perhaps surprising given the ubiquitous nature of shops in the archaeological record and their pivotal role in everyday life. Scholars have instead tended to focus their attention on the more spectacular elite houses and grand public buildings of the Roman world. Nevertheless, a body of work has gradually accumulated that offers a clearer and more detailed picture of these seemingly less-glamorous remains. In particular, in recent years, the food and drink outlets have received scholarly attention that has greatly added to the pool of knowledge about Roman retailing. However, there are still a number of important areas that have not been fully explored, which this thesis aims to address.

To establish the extent of scholarship concerning Roman bars, I performed a series of database searches tightly focused on the various Latin names used to describe food and drink outlets (see p.53).¹³ Databases consulted included L'Année philologique, said to be the most comprehensive index to scholarly work in

⁹ An omission noted by Ellis: S. J. R. Ellis, *The Roman Retail Revolution: The Socio-Economic World of the Taberna* (Oxford: OUP, 2018), 2.

¹⁰ Ellis notes that at Pompeii shops number in the 600s, and at Ostia, 800s. Ellis, *Roman Retail Revolution*, 4.

¹¹ See, for example, J. A. Baird, "Shopping, eating, and drinking at dura-europos: Reconstructing contexts," in *Objects in Context*, *Objects in Use: Material Spatiality in Late Antiquity*, eds. L. Lavan, E. Swift and T. Putzeys (Leiden: Brill, 2007), 413–37; Ellis, *Roman Retail Revolution*; J. M. Frayn, *Markets and Fairs in Roman Italy: Their Social and Economic Importance from the Second Century BC to the Third Century AD* (Oxford: Clarendon Press, 1993); C. Holleran, *Shopping in Ancient Rome: The Retail Trade in the Late Republic and the Principate*, (Oxford: OUP, 2012); E. Khamis, "The shops of Scythopolis in context," in Lavan, Swift and Putzeys, *Objects in Context*, 439–72; A. Mac Mahon, "The shops and workshops of Roman Britain," in *Roman Working Lives and Urban Living*, eds. A. Mac Mahon and J. Price (Oxford: Oxbow Books, 2005), 48–69.

¹² In particular, S. J. R. Ellis, "The Pompeian Bar and the City: Defining Food and Drink Outlets and Identifying Their Place in an Urban Environment" (PhD diss., University of Sydney, 2005) and Ellis Roman Retail Revolution; G. Hermansen, Ostia: Aspects of Roman City Life (Ontario: University of Alberta Press, 1982); T. Kleberg, Hôtels, Restaurants et Cabarets dans L'Antiquité Romaine: Études Historiques et Philologiques (Uppsala: Almqvist & Wiksells, 1957); S. M. Ruddell, "The Inn, Restaurant and Tavern Business in Ancient Pompeii" (MA Thesis, University of Maryland, 1964).

¹³ Terms identified in Kleberg, *Hôtels*, *Restaurants et Cabarets*, 6–20.

Classical studies, Gnomon Bibliographic Datenbank and JSTOR.14 These searches returned 6,417 results, although these needed further refinement as 4,885 of them were associated with either taberna or hospitium, both terms that have a very broad interpretation and therefore lead to false-positive results. I also searched EThOS, a resource from the British Library that contains more than 475,000 doctoral theses submitted to UK universities. 15 Additionally, I conducted searches across all the databases using English words associated with the hospitality business such as 'bar', 'tavern', 'inn' and 'restaurant' as well as their equivalents in modern Italian, French and German.16 These searches yielded a great deal of material and identified a number of scholars whose names appeared frequently, suggesting that the hospitality businesses were an area of their expertise, which allowed me to do further searches based on author name.¹⁷ A hand search was also conducted, checking the bibliographies and references of various books and journals. These references were then followed up and further bibliographies were consulted. This type of search was particularly important as it identified works absent from the databases, such as unpublished MA or PhD theses not included in the EThOS database. Despite the high number of results, it became clear that there were very few works that focused solely on the food and drink businesses, highlighting the fact that the study of Roman bars is a niche area limited to a handful of scholars who have published multiple articles. In the main, when bars are studied, they are included as part of a wider examination of other aspects of Roman life.

Although the first recorded discovery of a food and drink outlet was made back in 1748 by Niccolò Venuti at Herculaneum, interest in these commercial units seems to have been slow to take off. Works such as Pratelli's *La Bottega a Pompei* did not appear until 1937 and focused on the retail outlets in general, as did Girri's study at Ostia, in which he produced a list of shops accompanied by brief descriptions. Excavation reports, such as Fiorelli's *Descrizione di Pompei*, Maiuri's *Ercolano: I Nuovi Scavi, Scavi di Ostia* and *Notizie degli scavi di antichità*, although often brief, contributed much vital information for the study of the bars. ²⁰

Pratelli and Girri provided a good starting point for an investigation of the shops, but it was not until 1957

¹⁴ I also used Google Scholar and Epigraphische Datenbank Clauss — Slaby.

¹⁵ A broader search criterion was used for the EThOS database, which included the words, 'Pompeii', 'Herculaneum', 'Ostia'. It returned 57 results.

¹⁶ French: atelier, auberge, boutique, hostellerie. German: gastaus, gasthof, wirshaus. Italian: bottega, locanda, negozio.

¹⁷ For this I used Gnomon Bibliographic Datenbank.

¹⁸ N. M. Venuti, A description of the first discoveries of the ancient city of Heraclea, found near Portici, a country palace belonging to the king of the Two Sicilies, trans. W. Skurray, (London, 1750), 110–11.

¹⁹ B. Pratelli, *La Bottega a Pompei* (Napoli: F. Perrella, 1937); G. Girri, *La taberna nel quadro urbanistico e sociale di Ostia* (Roma: L'Erma di Bretschneider, 1956).

²⁰ G. Fiorelli, *Descrizione di Pompei* (Tipografia Italiana, 1875); A. Maiuri, *Ercolano: I Nuovi Scavi* (1927–1958) (Roma: Istituto Poligrafico dello Stato, 1958); *Scavi di Ostia*; *Notizie degli scavi di antichità* (Roma: Tip. della R. Accademia dei Lincei).

that the much acclaimed work of Tönnes Kleberg — *Hôtels, Restaurants et Cabarets dans L'Antiquité Romaine* — placed the hospitality businesses centre stage. Taking an etymological approach, Kleberg examined the ancient Latin literature to establish the terminology used by the ancients to describe the various types of establishment, identifying 10 different terms and pinpointing what services each offered.²¹ Using these terms, he labelled the archaeological remains, although his methodology and justification are unclear.²² Correlating the literary evidence with that of the material remains is notoriously problematic and is an approach that is questioned by various scholars.²³ For example, Allison notes that,

Investigations of Roman domestic space frequently commence with an outline of the relevant evidence from ancient written sources and then interweave these fragmentary remains with the equally fragmentary material remains. This process often involves uncritical assumptions about the relationships between various types of textual data, which have diverse agenda and sometimes anecdotal qualities.

Allison rightly argues that the relationship between the two sources is analogical, the evidence from one is used to interpret the other, and she calls for a more critical approach.²⁴ Because of these issues, in this thesis I have tended not to follow Kleberg's labelling of specific remains to describe the nature of the bar, although this practice continues to be widespread.²⁵ The written sources do, however, provide much valuable evidence for the bars and used with caution and in combination with other types of evidence — such as the physical remains and iconography — can provide rewarding results.

Much of the work that followed Kleberg's study centred on the archaeological remains, for example, Sharon Marie Ruddell's 1964 MA thesis in which she undertook extensive fieldwork at Pompeii to examine the remains of the bars *in situ*.²⁶ The aim of her research was to investigate each bar, to observe their general characteristics and to examine their distribution patterns.²⁷ She also made use of the ancient texts and wall paintings in an attempt to illustrate 'tavern life'. The result is a fairly descriptive overview of the archaeological

²¹ Kleberg, Hôtels, Restaurants et Cabarets, 6–20.

²² Ellis, "The Pompeian Bar," 10.

²³ For example, see Wallace-Hadrill, *Houses and Society*, 6. P. M. Allison, *Pompeian Households: An Analysis of the Material Culture* (Los Angeles: University of California Cotsen Institute of Archaeology, 2004), 5. 6

²⁴ P. M. Allison, "Using the Material and Written Sources: Turn of the Millennium Approaches to Roman Domestic Space," *American Journal of Archaeology* 105, no. 2 (April 2001): 185–86, https://doi.org/10.2307/507270.

²⁵ For a discussion of the problems of labelling the archaeological remains, see pp.55–56.

²⁶ Ruddell, "The Inn, Restaurant and Tavern Business".

²⁷ Distribution patterns, see Ruddell, "The Inn, Restaurant and Tavern Business," 51–57.

remains and supplementary evidence, offering a more in-depth study than that provided by Pratelli or Girri.²⁸ However, she does not synthesize her findings, so trends in design and the reasons behind the installation of different types of fixtures and fittings are not explored. As we will see, such an analysis provides valuable insights into how the Romans configured their commercial establishments (see Chapter 5). Today, Ruddell's work is still often cited and, although somewhat out of date, it provides essential information and photographs of structures that are now either lost or have deteriorated.

In the 1970s, James Packer produced two works that examined the archaeology of the bars. In *The Insulae of Imperial Ostia*, based on his PhD dissertation, he focused on Ostia's multiple dwellings, with a view to uncovering social and economic conditions in both Ostia and Rome.²⁹ As a result, six bars at Ostia were included in his survey, where for each structure he listed wall and door heights, window position, floor and wall decoration, as well as the height of any furniture. Although Packer did not focus his study exclusively on the bars, the examination of a whole insula provided essential contextualisation for these commercial units.³⁰ This detailed work provides a valuable addition to the data sets of the bars, and offers a good methodological model for future studies. Taking a slightly different approach, in his paper *Inns at Pompeii: A Short Survey*, Packer assessed nine 'wineshops', focusing on specific categories of the hospitality business — *stabula*, *hospitia* and *popinae/tabernae*.³¹ Here, Packer aimed to supplement Kleberg's 'general descriptions' of each type of establishment by providing a detailed picture of their character.³² He accomplished this by examining the archaeological remains and documenting the construction, decoration, furnishings and plans of each structure. In this paper, he takes an interpretive approach, discussing the often-overlooked upper floors as well as the possible function of various rooms — although he offers little or no explanation or evidence for these assertions.³³ Similarly, the problems of correlating the different

²⁸ J. DeFelice, *Roman Hospitality: The Professional Women of Pompeii* (PRC, Shangri-La Publications, 2001), 176.

²⁹ J. E. Packer, *The Insulae of Imperial Ostia* (Rome: American Academy in Rome, 1971). See also, J. E. Packer, "Middle and lower class housing in Pompeii and Herculaneum: A preliminary survey," in *Neue Forschungen in Pompeji und den anderen vom Vesuvausbruch 79 n. Chr. verschütteten Städten*, eds. B. Andreae and H. Kyrieleis (Recklinghausen: Bongers, 1975), 133-146.

³⁰ For a similar approach, see J. Schoevaert, *Les Boutiques d'Ostie: L'Économie Urbaine Au Quotidien: 1er S. Av. J.-C.-Ve Ap. J.-C.* (Rome: Ecole Rome, 2018).

³¹ J. E. Packer, "Inns at Pompeii: a short survey." Cronache Pompeiane IV (1978): 5–53.

³² Packer, "Inns at Pompeii," 5. Although Kleberg provided separate entries for *popina* and *taberna*, when he applied these labels to the archaeological remains he grouped them together, Packer follows suit. Kleberg, *Hôtels, Restaurants et Cabarets*, 39–43.

³³ Packer, "Inns at Pompeii," 21–22, 32. For a discussion of the pitfalls of room function identification, see Allison, "Using the Material and Written Sources," 185. For a discussion of upper floors at Herculaneum, see J. N. Andrews, "The use of development of upper floors in houses at Herculaneum" (PhD diss., University of Reading, 2006).

terms to denote a bar with the archaeological remains is not explored and instead presented as a *fait* accompli.

At about the same time, Gustav Hermansen was studying the bars of Ostia, using both the ancient literature and the archaeological remains. In his 1974 work The Roman Inns and the Law: The Inns of Ostia he turned his attention to the literary sources to try to make sense of the 'seemingly erratic' legislation under which limitations were put on what food the bars could sell.³⁴ He also questioned why the design of the counters at Ostia was different from those at Pompeii and Herculaneum, concluding that the legislation was at the root of these changes.³⁵ The design differences are of particular interest as they suggest a change in function, something that is explored further in this thesis. Although Hermansen's paper was very brief, in his later 1982 publication Ostia: Aspects of Roman City Life he presented a more detailed study, devoting two chapters to the bars. He drew on Kleberg's etymological findings, but, unlike Kleberg, his approach to studying the hospitality businesses was based primarily on observation of the archaeological remains.³⁶ Taking a similar approach to Ruddell, he provided brief descriptions of each establishment and assessed the ancient literature. Like Packer, he included measurements of the architecture and fixtures and fittings. However, in contrast to Packer's methodical approach, the inclusion of these data was inconsistent and, frustratingly, for some bars he provided no measurements at all.³⁷ Importantly, Hermansen developed a typology for the Ostian bars — touched on in his previous work — that I have implemented in this study.³⁸ Having identified the bars, Hermansen also married up the archaeological remains with the terms outlined by Kleberg. Although the reasoning behind his pairings seem logical, he does not flag up the inherent problems with this approach (see p.9). Hermansen also made some interesting observations about the distribution of the Ostian bars, putting them into the context of the city, as Ruddell had previously done for Pompeii.³⁹ For example, he noted the high proportion of bars that were located on street corners and, in contrast to Pompeii, the low number of bars in close proximity to public baths. 40 This type of analysis was later expanded by Ellis (for Pompeii), resulting in some ground-breaking findings.41 Building on this approach, I have examined the distribution of bars in

³⁴ G. Hermansen, "The Roman Inns and the Law: The Inns of Ostia" in *Polis and Imperium: Studies in Honour of Edward Togo Salmon*, ed. J. A. S. Evans (Toronto: Hakkert, 1974), 167–82.

³⁵ Hermansen, "The Roman Inns," 171.

³⁶ Hermansen, Ostia, xiv.

³⁷ Ibid., 130-32, 172-75. For example, there are no measurements for either Lii.5 or IV.vii.4.

³⁸ For an outline of the typology, see chapter 3.2.

³⁹ Drawing on Hermansen's work, Anna Kieburg examined the distribution patterns of the bars at Ostia, see A. Kieburg, "The Distribution of the Catering Trade in Ostia Antica," in *Food and Drink in Archaeology 1*, ed. S. Baker et al. (Totnes: Prospect, 2008), 57–64.

⁴⁰ Hermansen, Ostia, 185-86.

⁴¹ See note 67.

combination with other trades. This analysis provides the foundation for the study of the sensory experience of bars located in different parts of the city (see chapter 8).

In contrast to other scholars, Jashemski turned her attention to the outside spaces of the Roman world, becoming a pioneer in the field of garden archaeology. Her two volume work *The Gardens of Pompeii*, *Herculaneum, and the Villas Destroyed by Vesuvius* (published in 1979 and 1993) provided valuable insights into planting and the use of gardens for religious activities. As a number of bars had courtyards or garden areas that could have been used by patrons, her work sheds light on a retail space that would have added a different dimension to how a bar would have been experienced. In addition to these two volumes, in an earlier journal article she provided a more in-depth look at the bar at I.11.11 Pompeii. As well as giving an overview of the various rooms, she noted the inscriptions and finds that were uncovered. But, perhaps more importantly, by making casts of the ancient roots she was able to establish that the garden area was a vineyard. Sashemski's work is particularly useful as it provides a basis from which to extrapolate sensory data to gain a greater understanding of this supplementary commercial space.

Providing a different perspective, John DeFelice's 2001 publication explored the hospitality businesses through 'the lens of gender studies', and, like Hermansen, he delved into the Roman laws and ancient literature. In this case though, it was to dispute the 'widespread assumption' that women associated with the hospitality businesses were prostitutes and that wine shops, taverns or inns doubled as brothels. However, such theories are today rather out of date and based on scholars taking the ancient literature at face value. Although this is an area touched on in my thesis (pp.69-71), evidence for women in bars is scant and an area

⁴² For other recently published work focusing on Roman gardens, see W. F. Jashemski et al., eds. *Gardens of the Roman Empire* (Cambridge: CUP, 2017); M. Leslie, J. Dixon Hunt and K. L. Gleason, eds. *A Cultural History of Gardens in Antiquity* (London: Bloomsbury, 2013); K. T. von Stackelberg, *The Roman Garden: Space, Sense, and Society* (London: Routledge, 2009). From a sensory perspective, see J. Draycott, "Smelling trees, flowers and herbs in the ancient world," in Bradley, *Smell*, 60–73.

⁴³ W. F. Jashemski, *The Gardens of Pompeii: Herculaneum and the Villas Destroyed by Vesuvius* (New Rochelle: Caratzas Bros, 1979); W. F. Jashemski, *The Gardens of Pompeii, Herculaneum and the Villas Destroyed by Vesuvius*. Vol. 2: Appendices (New Rochelle: A.D. Caratzas, 1993).

⁴⁴ W. F. Jashemski, "The Caupona of Euxinus at Pompeii," Archaeology 20, no. 1 (January 1967), 36-44.

⁴⁵ Jashemski, "The Caupona of Euxinus," 39–41. For an overview of the wine-making process, see T. Putzeys, "Productive space in late antiquity," in Lavan, Swift and Putzeys, *Objects in Context*, 68.

⁴⁶ DeFelice, Roman Hospitality. For working women generally, see N. Kampen, Image and Status: Roman Working Women in Ostia (Berlin: Mann, 1981).

⁴⁷ DeFelice, Roman Hospitality, 4. See also T. A. J. McGinn, The Economy of Prostitution in the Roman World: A Study of Social History and the Brothel (Ann Arbor: University of Michigan Press, 2007), 15–22. For Roman prostitution, see R. Flemming, "Quae corpore quaestum facit: the sexual economy of female prostitution in the Roman Empire," The Journal of Roman Studies 89, (1999): 38–61, https://doi. org/10.2307/300733. For the association of barmaids as prostitutes in the modern world, see D. Kirkby, Barmaids: A History of Women's Work in Pubs (Cambridge: CUP, 1997), 56, 68.

⁴⁸ DeFelice, *Roman Hospitality*, 34. For example, Balsdon, *Life and Leisure*, 153; Carcopino, *Daily Life*, 276.

of gender studies that needs to be further explored. Given the focus of DeFelice's book, a useful addition to the appendix would have been a full list of passages that provide evidence of the women who were associated with the hospitality business, similar to that compiled by Ellis for the different bar types (see below).

Although DeFelice's focus was on women in the bars, he also examined the laws that limited food sales, as Hermansen had previously done. Additionally, he considered the types of food that were on offer, although it is not a detailed survey and for much of his evidence he relies on secondary works. A particularly useful section of the book is the 'Master list of Hospitality Businesses in Pompeii', in which DeFelice identified 151 establishments (plus another 42 classed as of uncertain identification). Each entry is labelled with its Latin term(s) and includes a physical description of the remains along with a bibliography, inscriptional evidence and where to find plans. However, it seems that DeFelice did not do any fieldwork himself and instead relied on the descriptions provided by other scholars, quoting directly from their work. Although the works he cites in his 'master list' may well be sound, first-hand experience of the site and corroboration of the facts would have enhanced his book greatly. This is an approach I have taken in my research, making numerous site visits to provide an accurate and up-to-date survey.

Focusing on the archaeology, Mac Mahon has produced a number of works concerned with Roman retail, but it is his research on the service counters of Pompeii and Herculaneum, published in 2005, that is of particular interest to my current study.⁵² The aim of his paper was to establish if the function of the counters had been misinterpreted. To answer this question he investigated the use of the counter and its role in retail, as well as examining its form and decoration. A significant aspect of Mac Mahon's approach was that he used modern design practices to assess the functionality of the ancient counters.⁵³ His study adds an extra dimension to the knowledge of the food and drink outlets because, unlike most other works, it considers the people who worked in and frequented the bars. Furthermore, the use of modern retail practices to assess the function and ergonomic practicalities of the ancient fixtures and fittings proves particularly enlightening and

⁴⁹ DeFelice, Roman Hospitality, 32–34.

⁵⁰ For example, Ruddell, "The Inn, Restaurant and Tavern Business," 40–42; W. C. Firebraugh, *The Inns of Greece and Rome* (Chicago: F.M. Morris, 1923).

⁵¹ For example, passages were taken from H. Eschebach, *Die städtebauliche Entwicklung des antiken Pompeji* (Heidelberg: Kerle, 1970); Kleberg, *Hôtels, Restaurants et Cabarets*; Packer, "Inns at Pompeii,"; Ruddell, "The Inn, Restaurant and Tavern Business,"; H. B. Van der Poel, *Corpus topographicum Pompeianum* (Rome: University of Texas at Austin, 1977).

⁵² A. Mac Mahon, "The *Taberna* Counters of Pompeii and Herculaneum," in Mac Mahon and Price *Roman Working Lives*, 70–87. Other works by Mac Mahon have also focused on commercial space see, for example, A. Mac Mahon, "Fixed-point retail location in the major towns of Roman Britain," *Oxford Journal of Archaeology* 25, no. 3 (August 2006): 289–309, https://doi.org/10.1111/j.1468-0092.2006.00262.x; A. Mac Mahon, *The Taberna Structures of Roman Britain* (Oxford: John and Erica Hedges, 2003), 57–80.

⁵³ Mac Mahon, "The *Taberna* Counters," 76.

is one I have used and extended in my study of the bars.

In a particularly detailed project, Fant — like Mac Mahon — focused on the counters, with his examination of the marble used to decorate them.⁵⁴ As well as measuring and cataloguing the marble fragments from a sample of counters at Pompeii and Herculaneum, he was able to establish that the 'crazy paving' decoration was a product of the ancients and not a result of early modern repair.⁵⁵ This is a significant finding when trying to establish what the Romans saw when they visited a bar — as my study does — and it also provides insights into decorative trends. In addition, Fant examined the range of materials used to decorate the counters, how they were displayed and the distribution of the counters. One of the most enlightening findings in Fant's study was the fact that at both sites there was a relationship between location and decoration, as the more elaborately decorated counters were found on the most important streets. Furthermore, it identified that it was the exterior vertical face of the counter that was lavished with the best decoration.⁵⁶ These findings are very much in line with those of Ellis (see below), and are compelling evidence suggesting that the shopkeepers of Pompeii and Herculaneum were commercially savvy. To take this study further, the inclusion of the marble-clad counters from other sites would be a welcome addition to gain a broader picture of commercial practices.⁵⁷

Although Fant included Herculaneum in his study of the marble counters, the site is often overlooked.⁵⁸ Nicolas Monteix's 2010 publication, *Les Lieux de Métier: Boutiques et Ateliers d'Herculanum*, was therefore a welcome addition.⁵⁹ Monteix has written widely on the commercial premises of the Roman world and in this book he focuses on the textile industry, bakeries and bars of the city.⁶⁰ Taking a multidisciplinary

⁵⁴ J. C. Fant and D. Attanasio, "Bars with marble surfaces at Pompeii: evidence for sub-elite marble use," FOLD&R Italy 159 (2009), 1–10; J. C. Fant, B. Russell and S. J. Barker, "Marble Use and Reuse at Pompeii and Herculaneum: the Evidence from the Bars," Papers of the British School at Rome 81 (October 2013): 181–209 https://doi.org/10.1017/S0068246213000081.

⁵⁵ Fant and Attanasio, "Bars with marble surfaces at Pompeii," 2.

⁵⁶ Fant, Russell, and Barker, "Marble Use and Reuse," 206.

⁵⁷ For Ostia, see B. Amiet, S. Barker and B. Russell, "The marble-clad bars of Ostia," Forum Romanum Belgicum 15.1 (Rome: Belgian Historical Institute in Rome, 2018), http://www.bhir-ihbr.be/doc/01_ostia_antica_barker.pdf.

⁵⁸ With some notable exceptions, J. J. Deiss, *Herculaneum: Italy's Buried Treasure* (London: Thames and Hudson, 1985); A. Wallace-Hadrill, *Herculaneum: Past and Future* (London: Frances Lincoln, 2012); M. P. Guidobaldi, D. Esposito and L. Pedicini, *Herculaneum: Art of a Buried City* (Abbeville Press, 2013).

⁵⁹ N. Monteix, Les Lieux de Métier: Boutiques et Ateliers d'Herculanum (Rome: École Française de Rome, 2010).

⁶⁰ For example, N. Monteix, "Cauponae, popinae et "thermopolia", de la norme littéraire et historiographique à la réalité pompéienne," in *Contributi di Archeologia Vesuviana III: I Culti di Pompei*, ed. L. Barnabei (Rome: L'Erma di Bretschneider, 2007), 115-126; N. Monteix, "De "l'artisanat" aux métiers. Quelques réflexions sur les savoir-faire du monde romain à partir de l'exemple pompéien, in *Les savoirs professionnels des gens de métier romains. Études sur le monde du travail dans les sociétés urbaines de l'empire romain*, eds N. Monteix and N. Tran (Naples: Centre Jean-Bérard, 2011), 7–26; N. Monteix, "Baking and Cooking," in *A Companion to Food in the Ancient World*, ed. J. Wilkins and R. Nadeau (Oxford: Wiley Blackwell, 2015), 213–

approach, he analyses the ancient literature, visual media and material remains to better understand the history and function of the shops and workshops. He devotes a chapter to the food and drink outlets in which he examines the activities that took place in them as well as considering a typology for identification. Of particular value is his catalogue of the structures, which, as well as providing brief descriptions of the bars, includes a list of the various finds. As such, this publication provides an invaluable resource for the commercial activities of Herculaneum.

However, the most in-depth study of the bars to date came from Ellis, who has written widely on the subject — of particular note was his 2005 PhD thesis, The Pompeian bar and the city: Defining food and drink outlets and identifying their place in an urban environment.⁶³ The main purpose of his research was to establish how the bars could be recognised in the archaeological remains.⁶⁴ With this in mind, he focused his thesis on developing a clearly defined typology. Ellis challenged the way previous scholars had approached defining a typology, arguing that they had been based on 'invalid textual analogy', which he believed led to a misunderstanding of the role that the food and drink outlets played in the city.⁶⁵ Taking his cue from Allison, he rejects the use of labels from literary and legal texts. The rejection of a typology based on the literary texts is understandable as none of these texts actually describes the physical remains of the bars, and so provides no direct evidence for their make-up. Instead, Ellis proposed an approach that privileged the archaeological data to identify the bars and establish robust criteria for recognizing the different types that centred primarily around the presence of a service counter.66 Through a detailed study of the remains, Ellis recorded elements such as architectural arrangements, fixtures and fittings, decoration and construction details, in a similar approach to that taken by Packer. This mode of methodical and thorough data collection was one that I adopted for my study, providing a consistent set of data across the three sites of Pompeii, Herculaneum and Ostia.

^{23;} N. Monteix, "Contextualizing the Operational Sequence: Pompeian Bakeries as a Case Study," in *Urban Craftsmen and Traders in the Roman World*, eds. A. Wilson and M. Flohr (*Oxford: OUP, 2016*), 153–82.

⁶¹ deKind also examined the bars of Herculaneum in his study of Insulae III and IV, R. E. L. B. de Kind, *Houses in Herculaneum: A New View on the Town Planning and the Building of Insulae III and IV* (Amsterdam: Gieben, 1998).

⁶² The finds lists should be viewed with some caution as the daybooks from which Monteix compiled them do not always provide accurate or objective evidence, see Ellis, *Roman Retail Revolution*, 81.

⁶³ Keiburg covered similar topics to Ellis in her PhD thesis, A. Keiburg, "Römische Gastronomiebetriebe in Pompeji, Herkulaneum und Ostia" (PhD diss., University of Hamburg, 2014).

⁶⁴ Ellis, "The Pompeian Bar," 1.

⁶⁵ Ibid., 150.

⁶⁶ Ibid., 1. See also, S. J. R. Ellis "The use and misuse of 'legacy data' in identifying a typology of retail outlets at Pompeii," *Internet Archaeology* 24 (2008), https://doi.org/10.11141/ia.24.4.

Like previous scholars, Ellis examined the distribution patterns of the bars.⁶⁷ In contrast with Hermansen's brief overview of trends at Ostia, Ellis's study of Pompeii was far more comprehensive and he was able to link bar location to economic considerations such as their placement along main roads and intersections.⁶⁸ He also suggested that counter positioning within a bar was a response to the direction of flow of ambulatory traffic.⁶⁹ My research builds on these initial forays into the psyche of Roman design to delve more deeply into the factors that helped shape bar design and function. This is further enhanced by a critical examination of distribution patterns within, and the sensescapes of, Roman neighbourhoods to provide a more comprehensive picture of the environmental, economic and practical issues that shaped the Roman bars.

Ellis has produced numerous additional works that focus on the Roman bars, most of which relate to the subjects covered in his PhD thesis. However, his 2018 book *The Roman Retail Revolution: The Socio-Economic World of the Taberna* examines shops more broadly with an aim to rectify the neglect of works on urban retail, a subject that has only recently begun to receive scholarly attention. In particular he re-evaluates the role that retail played in shaping cities and society. To do this, he examines both the archaeological evidence along with the textual sources — although his focus is primarily on the material culture. Based on his study of shops over an impressive 100 Roman sites, he charts the development of retail outlets chronologically. This line of inquiry is particularly relevant to my own research, as Ellis's discussion of the changing face of shop architecture informs my work, which illustrates how the design and function of the bars went hand-in-hand with this evolution. Importantly, he also highlights that there is evidence at Pompeii for the installation of food and drink outlets from as far back as the Augustan period. Therefore, what we see

⁶⁷ Ellis, "The Pompeian Bar," 116-149. See also S. J. R. Ellis, "The Distribution of Bars at Pompeii: Archaeological, Spatial and Viewshed Analysis," *Journal of Roman Archaeology* 17 (2004): 371–384, https://doi.org/10.1017/S104775940000831X.

⁶⁸ Ellis, "The Pompeian Bar," 129-38.

⁶⁹ Ellis, "The Pompeian Bar," 147-49.

⁷⁰ S. J. R. Ellis, "The Pompeian Bar: Archaeology and the Role of Food and Drink Outlets in an Ancient Community," Food & History 2, no. 1 (2004): 41–58, https://doi.org/10.1484/J.FOOD.2.300273; S. J. R. Ellis, "Finding a bar in Pompeii: a new approach to an old problem," in Common Ground: Archaeology, Art, Science, and Humanities: Proceedings of the XVI International Congress of Classical Archaeology, eds. C. C. Mattusch, A. A. Donohue and A. Brauer (Oxford: Oxbow Books, 2006), 377–81; S. J. R. Ellis, "Pes Dexter: Superstition and the State in the Shaping of Shopfronts and Street Activity in the Roman World," in Rome, Ostia, Pompeii: Movement and Space, eds. R. Laurence and D. J. Newsome, (Oxford: OUP, 2011), 160–73.

⁷¹ Ellis, Roman Retail Revolution, 2. Recent work focusing on retail includes M. Flohr, The World of the Fullo: Work, Economy, and Society in Roman Italy (Oxford: OUP, 2013); C. Hawkins, Roman Artisans and the Urban Economy (Cambridge: CUP, 2016); Holleran, Shopping in Ancient Rome; E. Mayer, The Ancient Middle Classes: Urban Life and Aesthetics In the Roman Empire, 100 BCE-250 CE (Cambridge MA: Harvard University Press, 2012); Monteix, Les Lieux de Métier; N. Tran, Dominus Tabernae: Le Statut de Travail Des Artisans et Des Commerçants de l'Occident Romain (1er Siècle Av. J.-C.-IIIe Siècle Ap. J.-C.) (Roma: École Française de Rome, 2013); Wilson and Flohr, Urban Craftsmen.

⁷² Ellis, Roman Retail Revolution, 26.

⁷³ Ellis, Roman Retail Revolution, 153-157.

at this site is the result of around 100 years of experimentation and development of bar design (up to AD 79) and the development of the cultural practice of bars incorporated into urban culture. As well as discussing issues associated with shops, such as the motivations behind retail investment and the potential returns, of interest to my study is his investigation into the types of food that would have been on offer at the bars (a subject previously tackled by DeFelice). As Ellis notes, despite the fact that much work has been undertaken on the Roman diet — often focused on elite consumption — the eating habits of the masses have largely been overlooked. While it is not an in-depth study, the archaeological evidence he offers, which is gleaned from recent excavations, is of particular value as it provides new insights into what comestibles were consumed. As food and drink were central to the experience of the bars, I have, in this thesis, aimed to provide a more comprehensive discussion of the food sold in the bars in order to extend the work undertaken thus far.

Ellis's book — published in the final stages of this thesis — provides a much needed contribution to the world of Roman retail and clearly demonstrates that it is a subject that should not be relegated to 'the trivial realm of 'everyday life' studies'. My research builds on the work done by Ellis, extending his macro overview of Pompeii into a micro analysis of that site along with a detailed comparative analysis with the food and drink outlets at Herculaneum and Ostia. Whilst I have drawn on Ellis's work my focus has shifted from an archaeological based study to one focused on the development of bar design and functionality, an area as yet untapped. By incorporating sensory analysis, I further extend the studies to produce a framework for understanding what the bars might have been like. The result is a clearer, more detailed picture of bar design, facilities and function, and how these attributes varied both geographically and over time.

Conclusion

A review of the literature reveals that apart from a handful of studies, the food and drink outlets have received little in-depth attention in the research of the commercial landscape. More often, the bars are included in studies focused on shops or workshops in general. In the more detailed studies, researchers have focused on issues such as cataloguing the remains, typologies and distribution patterns in an attempt to understand the role the bars played in the urban environment. The design of the bars tends to be touched on only in passing with reference to the archaeological remains, but little attempt has been made to understand the motivations behind the set up and installation of the food and drink outlets. My thesis fills this gap providing

⁷⁴ See also S. J. R. Ellis, "Eating and Drinking Out," in *A Cultural History of Food in Antiquity*, ed. P. Erdkamp (London: Berg, 2012), 95–112; DeFelice, *Roman Hospitality*, 32–34.

⁷⁵ Ellis, Roman Retail Revolution, 2.

fresh insight into ancient Roman commercial design practices. Perhaps more importantly, the people who ran and patronised these spaces have largely been overlooked, and the lived experience of the bars is an area ripe for attention. By examining the sensory experience of the bars, my research restores the people to the archaeological remains, thereby revealing more about the frequently sidelined lives of the non-elite. As we will see in the following section, the study of the senses in the classical world is a burgeoning new area of exploration and one that is yet to be fully exploited.

1.2 Sensory studies

One evidence stream that has great potential to uncover new and unexplored areas of Roman life is to take a sensory approach. Indeed, scholars are increasingly turning to an exploration of the senses as a means to gain a greater understanding of the lived experience of different cultures.⁷⁶ The discipline of Classical Studies is no exception, where approaches to research have focused on the material culture and ancient literary sources to provide a more nuanced reading of how the Romans experienced their world. Although a wide range of subjects has been examined, to date no such study has been undertaken for the food and drink outlets of the Roman world, despite their centrality to everyday urban life. Adopting a sensory-oriented approach to the study of the bars is especially useful as it provides fresh insights into the lives of the non-elite clientele about whom we still have much to learn. Furthermore, by applying a sensory approach to an urban context, it will help to inform the development of such a methodology for future studies. However, an exploration of the senses is not an easy process. The most obvious limitation is that the literary texts, which provide much information for this study, were written by the elite for the elite. Furthermore, as Bond has pointed out in her book Trade and Taboo, 'there is often a disconnect between the literary landscape and the actual physical one." It is therefore essential to use a multidisciplinary approach to incorporate all types of relevant material to obtain a balanced picture. Even so, the evidence is often fragmentary and, as Morley notes, unlike the sensory studies undertaken by historians such as Corbin, who had a wealth of rich source material to

⁷⁶ For an overview of the field of sensory studies, see D. Howes, ed., *Senses and Sensation: Critical and Primary Sources* (London: Bloomsbury Academic, 2018); D. Howes, "The Expanding Field of Sensory Studies," accessed August 1, 2018, https://www.sensorystudies.org/sensorial-investigations/the-expanding-field-of-sensory-studies. For a cross section of topics see, for example, A. Boutin, *City of Noise: Sound and Nineteenth-Century Paris* (Urbana: University of Illinois Press, 2015); A. Kern-Stähler, B. Busse, and W. de Boer, *The Five Senses in Medieval and Early Modern England* (Leiden: Brill, 2016). For possible methodologies, see K. E. Y. Low, "The Social Life of the Senses: Charting Directions," *Sociology Compass* 6, no. 3 (March 2012): 271–282, https://doi.org/10.1111/j.1751-9020.2011.00451.x; E. Betts, "Introduction," and "The Multivalency of Sensory Artefacts in the City of Rome," in *Senses of the Empire: Multisensory Approaches to Roman Culture*, ed. E. Betts (Abingdon: Routledge, 2017), 9, 23–38.

⁷⁷ S. E. Bond, *Trade and Taboo*: *Disreputable Professions in the Roman Mediterranean* (Ann Arbor: University of Michigan Press, 2016), 17–18.

consult on the smells of eighteenth- and nineteenth-century France, there are some clear gaps when it comes to the Roman world. For example, in contrast to the numerous French sources, Roman literature had little to say about smells.⁷⁸ There is also a conflict in the way in which we are asked to imagine the sights, sounds and smells of the Roman world. As Morley notes, portrayals of Roman cities range from the scrubbed and deodorized to the polluted, filthy and smelly.⁷⁹ Indeed, the scrubbed, deodorized and uninhabited model is a feature of many of the 3D reconstructions of the Roman world.⁸⁰

A criticism often levelled at sensory studies is that the methodologies used are subjective and unscientific, and so are not always seen as serious archaeological approaches. Indeed, matters of taste or smell, for instance, are not only subjective between individuals but also culturally influenced. This issue can to some extent be addressed in modern sensory studies by canvassing the opinions of large sample groups, but with historical surveys, this is not possible. Instead, we must consult all of the available data in order to gain an insight into the Roman *sensorium*. Although we cannot escape the subjective nature of the data, they do nevertheless provide us with a greater understanding of the Roman *sensorium*, which in turn extends our knowledge of an ancient culture. Critics have also commented on the privileging of certain senses, in particular sight, which results in an unbalanced picture. However, this is gradually being corrected. For example, one body of work that sought to challenge these opinions and has been particularly influential in creating the 'sensual revolution' is the *Sensory Formations Series* (the first volume of which was published in

⁷⁸ N. Morley, "Urban Smells and Roman Noses," in Bradley, *Smell*, 113; A. Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination* (Cambridge MA: Harvard University Press, 1986).

⁷⁹ Morley, "Urban Smells," 112.

⁸⁰ See Colonia Ostiensis, http://www.colonia-ostiensis.com; Portus Project, http://www.portusproject.org/technology/2012/12/reconstructing-portus; Rome Reborn, https://romereborn.frischerconsulting.com; The Swedish Pompeii project, http://www.pompejiprojektet.se; Vesuvia, https://vesuvia.hypotheses.org/tag/3d-model-herculaneum-herculanum; Rome Reborn, http://romereborn.frischerconsulting.com.

⁸¹ For a discussion of these issues, see S. Hamilton et al., "Phenomenology in Practice: Towards a Methodology for a 'Subjective' Approach," *European Journal of Archaeology* 9, no.1 (2006): 31–32, http://doi.org/10.1177/1461957107077704. See also H. Spiegelberg, *The Phenomenological Movement: A Historical Introduction* 3rd ed. (Dordrecht, Klewer, 1994), 687–90; Betts, "The multivalency of sensory artefacts," 24–25.

⁸² M. Bull and L. Back, "Into Sound ... Once More with Feeling," in *The Auditory Culture Reader*, eds. M. Bull and L. Back (London: Bloomsbury, 2016), 10; R. L. Doty, "Cross-Cultural Studies of Taste and Smell Perception," in *Chemical Signals in Vertebrates 4*, eds. D. Duvall, D, Müller-Schwarze, R. M. Silverstein (Boston: Springer, 1986); J. P. Toner, *Popular Culture in Ancient Rome* (Cambridge: Polity, 2009), 123; V. Henshaw, *Urban Smellscapes* (New York: Routledge, 2013), 32–33; P. Rodaway, *Sensuous Geographies: Body, Sense and Place* (Abingdon: Routledge, 2011), 11–13.

⁸³ D. Favro, "In the eyes of the beholder: Virtual Reality re-creations and academia," in *Imaging Ancient Rome: Documentation, Visualization, Imagination*, eds. L. Haselberger and J. Humphrey (Portsmouth, RI: Journal of Roman Archaeology, 2006), 333; I. J. Marshman, "All that glitters: Roman signet rings, the senses and the self," in Betts, *Senses of the Empire*, 138; M. Squire, "Introductory Reflections," in *Sight and the Ancient Senses*, ed. M. Squire (London: Routledge, 2016), 12–13; Corbin, *The Foul and the Fragrant*, 6.

⁸⁴ See for example, J. Day, ed., *Making Senses of the Past: Toward a Sensory Archaeology* (Carbondale: Southern Illinois University Press, 2013); Rodaway, *Sensuous Geographies*.

2003), edited by David Howes which has the objective to

'enhance our understanding of the role of the senses in history, culture and aesthetics, by redressing an imbalance: the hegemony of vision and privileging of discourse in contemporary theory and cultural studies must be overthrown in order to reveal the role all senses play in mediating cultural experience.'85

As Howes notes, 'the sensory turn in history and anthropology dates from the 1980s, but over the past few decades other disciplines, such as the humanities and social sciences, have 'successively turned their attention on the sensorium.'86 The volumes in the Sensory Formations Series cover all of the senses and multiple topics, providing valuable insights into the discipline. However, as they tend to focus on the modern world, their topics and methodologies are not always applicable to the ancient world. One exception is The Smell Culture Reader, edited by Jim Drobnick, which contains a number of chapters that are relevant to the study of ancient smell, with ideas and methodologies that, with some modifications, are transferable.⁸⁷ For example, Porteous discusses the landscape of smell and the way in which smellscapes (also soundscapes) can be mapped.88 Via smellwalks, data are collected from teams of 'nose-trained' experts or from questionnaires and interviews of the general public, which can then be used to map areas or cities to examine their sensory environment (see also Henshaw's work below).89 Although this approach cannot be directly replicated for the ancient world, searching the ancient literature and surveying the archaeological remains allows us to evaluate possible smell and sound data, thereby facilitating the creation of sensory maps. Food smells and the emotional responses to them — an important aspect in understanding the experience of Roman bar clientele — are discussed by Drobnick (also touched on by Porteous).90 He examines the role that modern-day marketing plays in food sales, and the practice of diffusing smells into the air with specialist equipment to tempt customers in. Such an observation leads to questions regarding the ancient food outlets (with their open-fronted shops) and an

⁸⁵ D. Howes, "Sensory Formations," accessed October 20, 2018, https://www.bloomsbury.com/uk/series/sensory-formations?pg=2.

⁸⁶ For a survey of contemporary scholarship, see Howes, "The Expanding Field".

⁸⁷ J. Drobnick, ed., *The Smell Culture Reader* (Oxford: Berg, 2006).

⁸⁸ J. D. Porteous, "Smellscape," in *The Smell Culture Reader*, ed. J. Drobnick (Oxford: Berg, 2006), 92.

⁸⁹ Porteous, "Smellscape," 92. See also Henshaw, *Urban Smellscapes*, 41–56; K. Mclean,

[&]quot;Communicating and mediating smellscapes," in *Designing with Smell: Practices, Techniques and Challenges*, eds. V. Henshaw et al. (Abingdon: Routledge, 2017), 69–73. For the questioning of participants regarding sound, see L. O'Keeffe, "Memories of Sound: Socioeconomic, Community and Cultural Soundscapes of Smithfield, Dublin from the 1950s," in Bull and Back, *Auditory Culture*, 223–24. For soundwalks, see H. R. Wilson, "Sonic Geographies, Soundwalks and More-Than-Representational Methods," in Bull and Back, *Auditory Culture*, 165–67.

⁹⁰ J. Drobnick, "Eating Nothing: Cooking Aromas in Art and Culture," in Drobnick, *Smell Culture*; Porteous, "Smellscape," 342–56.

interesting avenue of research to establish whether the Romans were applying an ancient equivalent of this marketing technique.

The senses and classical studies

More recently, there has been a rapidly growing corpus of work emerging that seeks to uncover new knowledge streams focused on sensory studies in the Graeco-Roman world. In particular, works such as *The Senses in Antiquity* series, edited by Mark Bradley and Shane Butler, which 'explores the relationship between perception, knowledge and understanding in the literature, philosophy, history, language and culture of ancient Greece and Rome', and provides a rich source of sensory material. Each volume concentrates on a specific subject area, and the range includes synaesthesia, smell, sight, taste, touch and sound. *A Cultural History of the Senses in Antiquity*, edited by Jerry Toner, and *Senses of the Empire: Multisensory Approaches to Roman Culture*, compiled by Eleanor Betts, both include chapters on a wide variety of topics including literature, philosophy, archaeology and Roman culture. An examination of these volumes provides a useful picture of the types of questions being asked and the methodologies currently being employed to uncover sensory data in the classical world. Importantly, a number of the topics explored cover aspects of life that can be related back to the food and drink outlets or offer context for my own work.

For example, Paulas turns to the Roman authors of technical literature to get an insight into how they categorised flavour and discusses the resulting flavour lists — all of which had their roots in the Platonic

⁹¹ See for example, **literature**: S. Butler, "Making scents of poetry," in Bradley, *Smell*, 74–89; S. Hitch, "Tastes of Greek Poetry: From Homer to Aristophanes," in *Taste and the Ancient Senses*, ed. K. C. Rudolph (Abingdon: Routledge, 2017), 22–44; E. Young, "The Touch of Poetry in the Carmina Priapea," in *Touch and the Ancient Senses*, ed. A. Purves (Abingdon: Routledge, 2017), 134–49. **Philosophy:** H. Baltussen, "Ancient philosophers on the sense of smell," in Bradley, *Smell*, 30-45; R. S. Goldner, "Aristotle and the Priority of Touch," in Purves, *Touch*, 50–63; K. Rudolph, "Sight and the Presocratics: Approaches to visual perception in early Greek philosophy," in Squire, *Sight*, 36–53. **Religion**: B. Caseau, "Tastes of Danger and Pleasure in Early and Late Antique Christianity," in Rudolph, *Taste*, 228–43; J. Heath, "Sight and Christianity: Early Christian attitudes to seeing," in Squire, *Sight*, 220–36; J. T. Toner, "The smell of Christianity," in Bradley, *Smell*, 158–70. **Medicine:** P. Baker, "Tastes and Digestion: Archaeology and Medicine in Roman Italy," in Rudolph, *Taste*, 138–60; L. Totelin, "Smell as sign and cure in ancient medicine," in Bradley, *Smell*, 17–29.

⁹² See for example, **literature**: S. Montiglio, "The Senses in Literature: Falling in Love in an Ancient Greek Novel," in *A Cultural History of the Senses in Antiquity*, ed. J. P. Toner (London: Bloomsbury Academic, 2014), 163–82; B. E. Stevens, "Sensory Media: Representation, Communication, and Performance in Ancient Literature," in Toner, *Cultural History*, 209–26. **Philosophy:** A. Clements, "The Senses in Philosophy and Science: Five Conceptions from Heraclitus to Plato," in Toner, *Cultural History*, 115–38. **Archaeology:** Derrick "Sensory archaeologies," 71–85; Flohr, "Beyond smell," 39–53. **Roman culture:** Day, "Scents of place, 176–92; D. Potter, "The Social Life of the Senses: Feasts and Funerals," in Toner, *Cultural History*, 23–44; H. Slaney, "Motion Sensors: Perceiving Movement in Roman Pantomime," in Betts, *Senses of the Empire*, 159–75.

and Aristotelian textual traditions.⁹³ However, his examination of these texts reveals that the authors were primarily interested in cataloguing and establishing terms of flavour discourse rather than exploring the differences in sensation and experience.⁹⁴ Nevertheless, Paulas's chapter provides a good grounding in the different flavour elements and the ancients' perception of flavour. Taking a similar textual approach, a sensorial analysis of wine is undertaken by Boulay, who focuses on Galen's account of how to assess the qualities of wine, by sight, taste, consistency, smell and strength.⁹⁵ This chapter provides a valuable insight into the vocabulary used to describe different flavours and also allows us to get a sense of what characteristics were considered to be pleasant and unpleasant to the Roman palate.⁹⁶ However, such an analysis tells us little of the relationship between wine and the majority of the Roman population and the extent to which these wine-tasting doctrines filtered down to the non-elite.⁹⁷

Other authors explore the sense of taste using both textual evidence and archaeological data. MacKinnon, for example, examines the role meat played in the lives of the Greeks and Romans and questions if taste was important. Focusing on zooarchaeological data, MacKinnon pinpoints patterns of consumption regarding who specifically ate meat. Although he argues that meat was a luxury item within the Roman world, he notes that the poorer classes would have eaten sausages and other 'lower-rate and bland' cuts such as brain, head, feet and minced products.⁹⁸ Although he does not provide evidence for this assertion, it is an interesting avenue to pursue when assessing the non-elite diet. He also examines trends in meat consumption across the ancient Mediterranean in which his data reveal that in many regions pork was 'the meat of choice'.⁹⁹ This research is particularly pertinent to my study of the food on offer in the bars as MacKinnon's archaeological data corroborate the ancient literature that attests to the popularity of pork items with all classes of Roman society.¹⁰⁰ In contrast to MacKinnon's focus on the carnivore diet, Livarda provides an analysis of archaeobotanical remains to uncover how tastes evolved and how they were perceived in the northwestern

⁹³ J. Paulas, "Tastes of the extraordinary: flavour lists in Imperial Rome," in Rudolph, *Taste*, 212–27. For a similar literary approach, Gowers examines the role of taste as a metaphor in Roman literature: E. Gowers, "Tasting the Roman World," in Rudolph, *Taste*, 90–103. For a medicinal focus to flavour, see L. Totelin, "Tastes in ancient botany, medicine and science: bitter herbs and sweet honey," in Rudolph, *Taste*, 60–71.

⁹⁴ Paulas, "Tastes of the extraordinary," 227.

⁹⁵ T. Boulay, "Tastes of Wine," in Rudolph, *Taste*, 197–211.

⁹⁶ See, for example, Boulay, "Tastes of Wine," 201-204 and Table 11.1.

⁹⁷ For the consumption of alcohol, see J. H. D'Arms, "Heavy Drinking and Drunkenness in the Roman World: Four Questions for Historians," in *In Vino Veritas*, eds. O. Murray and M. Tecuşan (London: British School at Rome, 1995), 304–317; E. M. Jellinek, "Drinkers and alcoholics in ancient Rome," *Journal of Studies on Alcohol and Drugs* 37, no. 11 (1976): 1718–1741, http://dx.doi.org/10.15288/jsa.1976.37.1718; Toner, *Leisure*, 77.

⁹⁸ M. MacKinnon, "Tastes of Meat in Antiquity," in Rudolph, *Taste*, 164–165.

⁹⁹ MacKinnon, "Tastes of Meat," 166, 168.

¹⁰⁰ For the popularity of pork in the Roman diet, see p.197-198.

provinces of the Roman empire. In particular, she explores what herbs, condiments, fruits, vegetables and nuts were introduced (and, like MacKinnon, casts an empire-wide net), charting their occurrence chronologically. Of particular interest is the list of foods and flavourings that offers insights into not just taste but also the smell and texture of the foods consumed. This detailed study provides a springboard for future research into food consumption that, with the aid of the ancient literature (particularly recipes), could help to inform the make-up of the Roman diet.

Combining archaeobotanical data with the literary and material evidence, Banducci looks at the export of 'Roman' tastes to different civilizations across Italy in the early Republican period, focusing on fauna and flora. In line with MacKinnon's findings, she too notes the popularity of pork, evidence for which she discovered in both the textual records and zooarchaeological remains, and finds that pork became strongly associated with Roman identity.102 In her discussion of flavourings, she notes that Roman cooks improved the flavour of foods considered to be bland by 'spicing' them up. 103 Her review of the instruments used for preparing foods and the selection of different cooking pots and methods also illustrates how such considerations could affect the food's texture, suggesting a considered thought process to enhance the gastronomic experience (factors that perhaps contribute to answering MacKinnon's question about the importance of taste).¹⁰⁴ Although this chapter proves valuable for understanding the spread of certain food items across Italy, more detailed information concerning the find spots of the zooarchaeological evidence would have been desirable, and would perhaps have provided information about who was consuming what. Approaching the sensory study of food from a different angle, Potter examines smell associated with dining and, like Paulas and Boulay, focuses on the ancient literature (including works from Athenaeus, Pliny the Elder and Plautus). Of particular interest is his discussion on Roman attitudes to what was categorised as a bad smell, which he argues was often class-specific. 105 This idea is clearly illustrated in the ancient literature and will be dealt with in more depth in chapter 7. Although centred on elite consumption, Potter's chapter offers some important insights into the dining experience of the lower classes (and therefore bar clientele) and, unlike the previous works mentioned, he concentrates on the experience and attitudes of the people and

¹⁰¹ A. Livarda, "Tastes of the Roman Provinces: an archaeobotanical approach to socio-cultural change," in Rudolph, *Taste*, 179-196. See also Baker, who examines the archaeological and epigraphic evidence to identify foods from the Bay of Naples: Baker, "Tastes and digestion," 143–54.

¹⁰² L. M. Banducci, "Tastes of Roman Italy: Early Roman expansion and taste articulation," in Bradley, *Smell*, 131.

¹⁰³ Banducci, "Tastes of Roman Italy," 127-29.

¹⁰⁴ Banducci, "Tastes of Roman Italy," 133-36.

¹⁰⁵ Potter, "The Scent of Roman Dining," 129–30. For a comparison of attitudes to smell in nineteenth-century France, see Corbin, *The Foul and the Fragrant*.

the lived experience. 106

The multisensory turn has given rise to the consideration of other areas of sensory research. The study of the urban landscape, for example, has been undertaken by a number of scholars. Morley, for instance, explores the urban environment by surveying the literary and legal texts to uncover noxious odours and how they were experienced. Interestingly, although he concedes that 'There can be no question but that the urban air of the Roman empire stank', he argues that the Romans did not seem to notice this, or at least they did not comment on it. As he points out, this is in stark contrast to the many eighteenth- and nineteenth-century authors who complained vehemently about the stench of the city. ¹⁰⁷ Importantly, Morley's argument highlights that we must not put our own preconceptions onto Roman sensibilities, although we may be able to reconstruct ancient smellscapes, modern and ancient perceptions may not align. Koloski-Ostrow also examined urban smells and although, like Morley, she used the ancient literature, her primary focus was on the archaeological evidence. ¹⁰⁸ Concentrating on Pompeii, Herculaneum, Ostia and Rome, she aimed to identify the various odours and explore whether or not they were linked to the social organisation of the city. She covers a great deal of ground — including sewers, toilets, commerce and public amenities — and offers an insight into the ancient olfactory experience. Koloski-Ostrow's approach, and her questioning of smell as a catalyst for urban zoning, is of particular relevance to my study of the Roman sites and one that I explore in chapter 8. ¹⁰⁹

The urban landscape is however not limited to the exploration of smell, the auditory nature of the city has also received some interest. 110 For example, Laurence turned to Latin literature to recreate the soundscapes of ancient Rome, but he also incorporates personal experience to create 'vignettes of real and imagined soundscapes in the city of Rome'. 111 This twofold approach proves particularly effective as it adds an extra layer to our understanding of the street's acoustic characteristics — one that can be accomplished only with first-hand experience. 112 As Laurence notes, creating an acoustic map of Rome based

¹⁰⁶ For other sensory studies of consumption, see A. Wallace-Hadrill, "The senses in the Marketplace: The Luxury Market and Eastern Trade in Imperial Rome," in Toner, *Cultural History*, 69–89.

¹⁰⁷ Morley, "Urban Smells," 116-17.

¹⁰⁸ Koloski-Ostrow, "Roman urban smells," 90-109.

¹⁰⁹ For a discussion on economic and moral zoning, see Laurence, Roman Pompeii, 17–19; 83.

¹¹⁰ Boutin, City of Noise; Bull and Back, Auditory Culture; J. M. Picker, Victorian Soundscapes (Oxford: OUP, 2003); R. M. Schafer, Soundscape: Our Sonic Environment and the Tuning of the World (Rochester, VT: Destiny Books, 1994); B. R. Smith, The Acoustic World of Early Modern England: Attending to the O-Factor (Chicago: University of Chicago Press, 1999); J. Veitch, "Soundscape of the street: Architectural acoustics in Ostia," in Betts, Senses of the Empire, 54–70.

¹¹¹ R. Laurence, "The Sounds of the City: from Noise to Silence in Ancient Rome," in Betts, *Senses of the Empire*, 13. For an imagined image of Rome, see D. Favro, *The Urban Image of Augustan Rome* (Cambridge: CUP, 1996).

¹¹² For the importance of empirical studies, see E. Betts, "Afterword: Towards a methodology for Roman sensory studies," in Betts, *Senses of the Empire*, 198.

on the ancient literature is problematic owing to the fragmentary nature of the data.¹¹³ However, the sensory landscapes that can be constructed provide a valuable starting point for analysis.¹¹⁴ This is also the case for the three sites under discussion in my thesis, where, as well as identifying the sounds of the city, I have taken Laurence's approach one step further to plot the acoustic data onto site maps, which facilitates quantitative and visual comparisons.

Although some scholars have chosen a broad brushstroke with which to explore the Roman urban sensorium, others have homed in on very specific areas for research. For example, Derrick investigated the site of Vindolanda in an attempt to reconstruct the smellscape of the fort.¹¹⁵ Focusing on the archaeological remains, he looked in turn at the different areas of the site to assess the olfactory impact. However, the 'preliminary' nature of the study does not allow for great detail and tends to be somewhat generic.¹¹⁶ Nevertheless, his approach highlights the potential of an archaeologically based approach as a means to uncover the nuances of a sensory landscape, in contrast to a reliance on ancient texts. Taking a similar approach, an investigation of the sensory landscape of the Roman fullonica is undertaken by Flohr, who like Koloski-Ostrow and Derrick, focuses on the archaeological remains.¹¹⁷ In this case though, his approach is multidisciplinary (using material culture, texts and iconography) and multisensory. Flohr's methodical approach works particularly well as he provides an overview of the sounds, sights, touch and smells of the fullonicae. Additionally, he examines a sample of fulleries, situating the sensory effects of the fulling process into the context of how things worked in practice. By combining a wide range of evidence and presenting a multisensory perspective, Flohr's work illustrates how the examination of a specific trade can enlighten us on aspects of Roman urbanism in new and insightful ways. As my research on the food and drink outlets follows the approach taken by Flohr, it further extends understanding of the urban context, providing strong foundations for more studies.

The empirical approach

Some scholars have adopted an empirical approach to exploring the senses, a tactic I have aimed to develop

¹¹³ For a representation of the soundscape of the Forum Romanum, see E. Betts, "Towards a Multisensory Experience of Movement in the City of Rome," in Laurence and Newsome, *Rome, Ostia, Pompeii*, 127, Fig. 4.1.

¹¹⁴ Laurence, "Sounds of the City," 14.

¹¹⁵ Derrick, "Sensory archaeologies," 71-85.

¹¹⁶ For example, he mentions the smells from the Temple of Jupiter, and, later, the presence of sweet-smelling herbs and prepared perfumes in and around the barrack rooms, but in both instances does not give specific examples, so unlike Koloski-Ostrow's work, an appreciation of the smellscape cannot be imagined by the reader. Derrick, "Sensory archaeologies," 81, 83.

¹¹⁷ Flohr, "Beyond smell," 39-53.

in my studies. For example, in *Urban Smellscapes* Victoria Henshaw examined the senses in respect of urban design and planning in the context of contemporary experiences and perceptions of English towns and cities.¹¹⁸ To do this, she conducted smellwalks around a sample range of cities, collecting data from participants and then mapping the results. Of course, such people-sampling is not possible for the Roman world, but the ancient literature provides useful data on perceptions of smell and, indeed, taste and sound,¹¹⁹ so, although we cannot directly question the Roman people, a database of opinions is possible. Henshaw's case studies are of particular value because they look at smell environments that include fish and meat markets, pubs, restaurants and public latrines — smellscapes that are all relevant to ancient Roman cities.¹²⁰ Using Henshaw's results also allows us to compare perceptions of smell between the ancients and moderns.

The Tavoliere–Gargano Prehistory Project, which was concerned with the sensory experience of landscapes and locales, took a similar approach. ¹²¹ In the article "Phenomenology in Practice: Towards a Methodology for a 'Subjective' Approach", Sue Hamilton and Ruth Whitehouse describe three experiments in phenomenological archaeology that were carried out on Neolithic settlement sites. The value of this article is its exploration of methodological approaches to collecting sensory data — an area that is still being developed. Unlike Henshaw's work, the research carried out by the project was on an ancient site with similar methodological problems to those that might be encountered at Pompeii, Herculaneum and Ostia. The approaches used are therefore easily transferable and adaptable to other sites and set a precedent for my endeavour to collect sensory data on the Roman sites.

Works incorporating sensory data

Works not directly labelled as sensory studies can also provide information that helps to inform the *sensorium* of the bars and their surrounding areas. In particular, Jerry Toner's book *Popular Culture in Ancient Rome* is useful because it not only focuses on the non-elite, but it also has a chapter devoted to the senses. ¹²² In it, Toner fleshes out the lives of the non-elite, discussing areas such as their work and its effect on their bodies, their smell, the kinds of noises they made and the way they spoke. Toner provides valuable evidence to enhance our understanding of the possible sound and smellscapes that may have pervaded the bars. More

¹¹⁸ Henshaw, Urban Smellscapes. See also Henshaw et al., Designing with Smell.

¹¹⁹ For the challenges in recreating historical urban smellscapes, see Derrick, "Sensory archaeologies," 71.

¹²⁰ Henshaw, Urban Smellscapes, 85-140.

¹²¹ Hamilton et al., "Phenomenology in Practice".

¹²² Toner, Popular Culture.

importantly, his study highlights the different sensory worlds both elite and non-elite inhabited (see Potter above). 123 However, one olfactory experience that would have been shared by all was the latrine, a facility found in many of the bars. This is discussed in Koloski-Ostrow's book, which provides much information, both archaeological and literary, on the feelings towards these everyday essentials.¹²⁴ Her work highlights that latrines were not just about bad odours, they provided users with a multisensory experience as they also induced feelings of anxiety and trepidation owing to the widespread belief that demons inhabited such places. 125 This, perhaps unexpected, sensory dimension puts a fresh perspective on the dramas encountered as part of everyday life. Koloski-Ostrow's work helps to draw up a full understanding of the sensory nature of the latrines and the additional olfactory layers that would have melded with those of the bar. 126 Sarah Bond's recent book, Trade and Taboo: Disreputable Professions in the Roman Mediterranean, also looks at aspects of daily life and considers the stigmatization and attitudes to various groups of professions, including funeral workers, criers, tanners, mint workers and bakers, all potential bar clientele. Of particular significance to my study is her discussion of the malodorous smells produced by the tanning process, a stench that would certainly have made its presence known in the smellscape of the streets, seeping into the shops and bars close by. 127 Bond's work, like Flohr's, provides essential coverage of the lower-class lives and the sensory world they inhabited, much like this thesis aims to do for bar clientele.

Conclusion

Since the publication of the influential *Sensory Formations Series* in 2005, the study of the senses has burgeoned, and in the past few years the discipline of classical studies has embraced the investigation of the senses, developing new approaches and methodologies to uncover untapped knowledge streams in ancient history. As a result, a growing body of scholarship has emerged that is shaping the way the senses are studied in the classical context. But this is a nascent field, and there are huge opportunities to add to the existing landscape in terms of both methodological approaches and greater detail. For example, although the edited works focused on sensory studies are a valuable resource, they do have some limitations — the chapters tend

¹²³ Toner, Popular Culture, 123.

¹²⁴ A. O. Koloski-Ostrow, *The Archaeology of Sanitation in Roman Italy: Toilets, Sewers, and Water Systems* (Chapel Hill: University of North Carolina Press, 2015).

¹²⁵ Ibid., 112-15.

¹²⁶ Also, B. Hobson, *Latrinae et Foricae*: *Toilets in the Roman World* (London: Duckworth, 2009); G. Jansen, "Private toilets at Pompeii: appearance and operation," in *Sequence and Space in Pompeii*, eds. S. E. Bon and R. Jones (Oxford: Oxbow Books, 1997); G. Jansen et al., eds. *Roman Toilets: Their Archaeology and Cultural History* (Leuven: Peeters, 2011).

¹²⁷ Bond, Trade and Taboo, 97-125.

to be, of necessity, brief and so are unable to offer a more in-depth treatment. Although it is to be applauded that the volumes cover myriad subjects from the Graeco-Roman world, their subject matter can be somewhat disparate. As the field expands it would be beneficial to see more unified and tightly focused volumes. Many of the works also tend to rely on the ancient literature — with its elite bias — to uncover sensory experience, but the use of other methods such as archaeological analysis and experimental fieldwork can help to bring greater rewards and a more nuanced understanding of the ancient sensorium. It is also noticeable that the city of Rome is often the focus of modern authors. Although this is understandable, as most of the literature relates to ancient Rome, a broader picture is needed to fully understand geographical differences in sensory experience. To that end, this thesis fills a number of gaps prevalent in the field. In particular, the direct engagement with the archaeological sites and an experimental approach to uncovering sensory data extend the current focus of the use of the ancient literary sources. The geographical imbalance is addressed by studying Pompeii, Herculaneum and Ostia, shedding fresh multisensory light on different urban contexts. To date, no systematic study of a range of locations across a city has been attempted. By analysing the bars of Pompeii, Herculaneum and Ostia I have been able to examine the businesses from a micro perspective and to use those case studies to create a macro analysis that extends not only to the bars of a city but to those across geographical locations. As such, my work provides a unique combination of the evidential strands extant in the current literature.

2. METHODOLOGY

2.1 Archaeology, literature, image

This chapter outlines the methodology deployed to explore the design and sensory experience of Roman food and drink outlets. My primary aim was to gain a full understanding of what characterised a bar, the different spatial configurations used, and the fixtures and fittings they required. In particular, I hoped to establish the extent to which geographical or temporal changes affected construction and layout practices across the three sites, as this would be a key factor in shaping how people experienced the bars.

The evidence can be divided into three broad categories: archaeological remains; archaeological finds, including reliefs and paintings; and primary literary sources. To facilitate a comparative analysis, all of the evidence needed to be gathered, examined and assessed objectively. As a result, the foundation for my approach was data collection from the source. For the archaeological remains, that meant field trips and on-site surveys. For the finds and literary sources, extensive research of existing databases, scholarship and reports was required. Data collection on the field trips aimed for consistency — for example, room sizes were all determined by laser, and existing fixtures and fittings were measured and catalogued. This work was backed up by extensive photography as well as surveys of the nearby surroundings, to provide a picture not only of the bar but of the neighbourhood in which it was located. Similarly, the results of my searches through the literary sources were tabulated and subsequently analysed to generate a consistent view of the bars, including contemporary definitions as well as information on services provided and goods sold. Similarly, the exploration of iconography and finds produced lists that could be categorised. These various strands of evidence were then combined to give a comprehensive picture of the bars and to allow sensory profiles to be determined.

Although valuable work has been undertaken on the Roman hospitality businesses, scholars have tended to focus on specific methodologies that privilege either the archaeological or literary evidence, providing only a

partial understanding of the role of the bars. By taking a multidisciplinary approach, my aim was to produce a study that pushed beyond the limitations of existing scholarship in this field to offer a unique contribution through the evaluation of all types of available evidence. Combining this with new avenues of investigation, such as design concepts and the sensory landscape, I sought to produce a more balanced picture of Roman bars than is currently available.

The ancient literature

The first step in my study was to survey the ancient literature to understand how the bars were perceived to have functioned; to establish how the literary and legal 'landscape' represented the bars; and to discover contemporary attitudes towards these establishments. To do this I used the search facility at the Packard Humanities Institute, which contains virtually all Latin literary texts written before 200 CE, as well as some texts selected from later antiquity.¹²⁸ My search criteria were based on the various terms used by the Romans to denote food and drink establishments, as set out by Kleberg. 129 The resulting passages were then separated into broad categories to include the legal texts, histories, poetry, plays and satire, as each has its own particular bias or agenda, an important aspect to bear in mind when assessing the evidence.¹³⁰ The passages were copied into a Microsoft Word document with author and reference notes and then the English translations were added. I used the translations from the Loeb Classical Library, based on their reputation for reliability and their mission to preserve the spirit and meaning of the original texts. As well as the literary texts, which tend to provide an elite point of view, I searched through inscriptions and graffiti to find those with references to the Roman hospitality businesses, many of which add a non-elite perspective — an essential aspect considering the nature of the bars' clientele. Using the same search criteria as for the Packard database, I searched the epigraphic database at www.manfredclauss.de, which holds one of the most extensive collections of Latin inscriptions available.¹³¹ Having completed the various searches I created an Excel spreadsheet and split the texts into categories, according to the type of evidence they provided. The categories included what

¹²⁸ http://latin.packhum.org. The search for the words *caupona*, *hospitium*, *popina*, *taberna*, *thermopolium* and *stabulum* returned 603 results.

¹²⁹ Kleberg, *Hôtels*, *Restaurants et Cabarets*, 1–25. See pp.52-54 for definitions. The search terms I used included *Caupona*, *Caupo*, *Copo*, *Deversorium*, *Hospitium*, *Popina*, *Stabulum*, *Thermopolium*.

¹³⁰ The legal texts come from the *Digest of Justinian*, a compendium of Roman law intended to curtail lawsuits, which, although compiled in the 6th century CE, features texts written no later than about 300 CE, see S. Hornblower and A. Spawforth, eds. *The Oxford Classical Dictionary* (Oxford: OUP, 2003), 803–04.

¹³¹ The search for the words *caupona*, *hospitium*, *popina*, *taberna*, *thermopolium* and *stabulum* returned 192 results.



Fig. 2.1 View of the ruins at Herculaneum.

was sold, clientele, entertainment, women and bar location. The data were further sorted for the sensory study to highlight texts that commented on sight, sound, smell, taste and atmosphere. This process helped to identify the most relevant texts for my study. Those that did not fit into any of the categories were analysed separately and added to a miscellaneous heading.

Site selection

Given that a key part of my research is a comparative analysis of bars, my field work needed to collect data across multiple sites. I chose to focus on three: Pompeii, Herculaneum (Fig. 2.1) and Ostia. The main reason for selecting these locations was that they feature a reasonably large number of properties that have been identified as bars. For example, at Pompeii the number ranges from 163 to more than 200.¹³² At Ostia, 39 properties have been identified as bars and 12 are labelled as such at Herculaneum.¹³³ A further consideration was the condition of the archaeology, which is reasonably good across the three cities. Studying all three sites also provided the opportunity to assess how the design, layout and function of the bars differed between locations and changed

¹³² Ellis, *Roman Retail Revolution*, 8; for a full list of properties, see Table 2.1, 66–69. A. Wallace-Hadrill, "Public honour and private shame: the urban texture of Pompeii," in *Urban Society in Roman Italy*, eds. T. J. Cornell and K. Lomas (London: Routledge, 2004), 46.

¹³³ At Ostia, Hermansen identified 38 bars: Hermansen, *Ostia*, 127–82. Bakker identified a bar Hermansen had missed: J. T. Bakker, "Ostia Harbour City of Ancient Rome," accessed June 1, 2015, http://www.ostia-antica.org/regio5/5/5-2.htm. However, some of these are of dubious identification, Ellis identifies 33 bars: Ellis, *Roman Retail Revolution*, 18. For the bars at Herculaneum, see Ellis, *Roman Retail Revolution*, 18–19, Fig. 3.5.

over time, providing a greater insight into the evolution of the food and drink outlets. At its peak, in the midsecond to third century CE, Ostia — Rome's port — was a bustling commercial centre at the heart of the Roman Empire, attracting imperial officials and international merchants. Its slow demise began in the fifth century and by the mid-sixth century it was in terminal decay.¹³⁴ In contrast, Herculaneum — approximately 244km from Ostia — and Pompeii, a further 16km, were small Italian cities characterised by elite landowners and wealthy freedmen.¹³⁵ Both cities were buried by the eruption of Mount Vesuvius in AD 79, and despite their reasonably close proximity to each other, previous site visits had highlighted that there were potentially significant differences in the design of the bars — an element that has been previously overlooked. Other sites — such as Lucus Feroniae and Alba Fucens — also have evidence of retail counters, but these exist in far fewer numbers and contexts than at Pompeii, Herculaneum and Ostia, so would have allowed for a less fruitful analysis.

Approach to the study of the bars

There were a number of possible approaches I could have taken to study the bars. For example, I could have based my study on the ancient literature, as Kleberg had previously done. However, the ancient texts do not tend to mention the shops' fixtures and fittings or the spatial layout, so are not useful for a design-based study. Alternatively, site plans would have provided valuable information about the spatial layout of the bars, but they do not provide the dimensions of the fixtures and fittings, which for a comparative analysis was key to the study. Furthermore, a limitation of the site plans is that they are not particularly detailed, for example, they do not include *dolia*, stepped shelves or the configuration of the hearths, key features of bar design (Fig. 2.2). I could also have used the data collected by previous scholars who have measured the bars' dimensions, fixtures and fittings. However, although, for example, Ellis

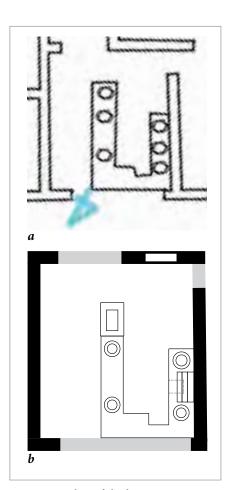


Fig. 2.2 a, Plan of the bar at I.9.4 Pompeii (Map: The World of Pompeii); b, my drawing with detail added.

¹³⁴ See G. de la Bédoyère, *Cities of Roman Italy* (London: Bristol Classical Press, 2010), 9–13. For the decline of Ostia, see R. Meiggs, *Roman Ostia* (Oxford: Clarendon Press, 1977), 83–101.

¹³⁵ See de la Bédoyère, Cities of Roman Italy, Herculaneum, 18–20, Pompeii, 13–18.

¹³⁶ Kleberg, Hôtels, Restaurants et Cabarets.

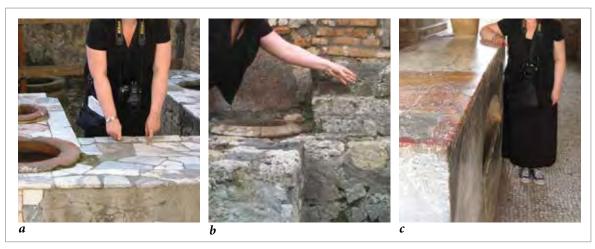


Fig. 2.3 Trying out the counters and their features at a, Herculaneum (V.10), b, Pompeii (V.2.13) and c, Ostia (I.2.5).

included the counter dimensions in his Gazetteer, there are no measurements for the *dolia*, stepped shelves or hearths.¹³⁷ In Hermansen's study of the Ostian bars, he included only the 'more relevant measures.¹³⁸ As a result, an on-site survey was the only way to gather all of the necessary data. Furthermore, undertaking fieldwork at all of the sites meant that there would be consistency in data collection.

Crucially, working on site provided an invaluable opportunity to experience the space of the bars and the urban context in which they were situated. This allowed me to get a sense of how it felt to move around a particular building, and to 'test' the practicalities of the design of the fixtures, fittings and layout.¹³⁹ In particular, it provided a haptic dimension to the study, with the chance to touch items such as the cool marble counter tops, the smooth-textured *dolia* and the floors made up of various materials. I was able to physically experience aspects of the counter set-up including height, reach-depth and accessibility of features such as stepped shelves (Fig. 2.3). In addition, the changing weather conditions provided a real sense of what it would have been like to live in the ancient cities.¹⁴⁰ For example, on one visit to Pompeii, the weather switched from full sun, to sleet and rain and then to snow, all in the space of two hours. The variation in light, experienced at different times of the day and year, added an extra dimension to the understanding of the temporal changes of the ancient cities. But particularly enlightening was a downpour experienced on Pompeii's Via Stabiana outside the baths, where the fast flowing torrents of water were surprisingly loud. These on-site experiences afforded a far greater depth of understanding of daily life, an aspect that is often neglected by modern studies.

¹³⁷ Ellis, "The Pompeian Bar," 207-514.

¹³⁸ Hermansen, Ostia, 127.

¹³⁹ F. M. Green, "Cooking Class" in *Public and Private in the Roman House and Society*, eds. K. Tuori and L. Nissin (Portsmouth, RI: Journal of Roman Archaeology, 2015), 133–147.

¹⁴⁰ Fieldwork took place throughout the day from 8.30am to 7.30pm and in the months of April, May, June, September, October, November.

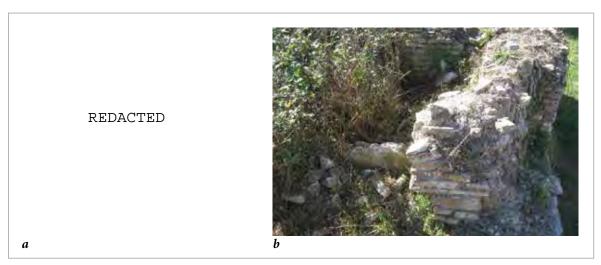


Fig. 2.4 The bar at V.1.13 Ostia. a, As it appeared in Hermansen's book and b, as it now is, in a rather ruinous condition that prevented the collection of much meaningful data.

Bar selection

As an initial guide, structures at Pompeii and Herculaneum were short-listed for survey based on the presence of a masonry counter, which is Ellis's primary criterion for the identification of a possible bar. ¹⁴¹ For Ostia, I based my selection on the list of bars drawn up by Hermansen, which used the presence of a counter with a barrel-vaulted basin as the primary characteristic. ¹⁴² This list was then refined by taking into consideration the state of preservation — whether it was possible to gather sufficient meaningful data from the remains — and whether additional fixtures and fittings, such as a hearth or shelving, were present that would corroborate identification of the structure as a bar (Fig. 2.4). ¹⁴³ Based on these criteria, my aim was to survey as many establishments as possible to get the greatest variety of bar types and layouts for analysis. No one particular area was privileged, which meant that the properties surveyed were located across the city, and in a diverse range of environments. In total, I surveyed 99 establishments at Pompeii, 11 at Herculaneum and 20 at Ostia. However, after consideration, I narrowed my selection criterion for the bars at Pompeii and Herculaneum to include only those with a hearth. ¹⁴⁴ I believe the addition of a cooking facility makes for a stronger identification of a bar, rather than just a shop selling general goods. At Ostia, the choice of which structures to include in the study was guided largely by the condition of the archaeology as many of the counters were in a ruinous state and not complete enough to measure. The final totals of bars included in the survey were 76 at

¹⁴¹ Ellis, "The Pompeian Bar," 91. See also Ellis, Roman Retail Revolution, 64–76.

¹⁴² Hermansen, Ostia, 187-88; Hermansen, "Roman Inns," 173-78; Ellis, Roman Retail Revolution, 55.

¹⁴³ For additional criteria, see Hermansen, "Roman Inns," 175. For a discussion regarding the identification of bars, see Chapter 3.2.

¹⁴⁴ In line with Ellis, "The Pompeian Bar", 91; Ellis, "The use and misuse of 'legacy data," 6.1; Ellis, *Roman Retail Revolution*, 9.

Chronology of bars surveyed at Pompeii, Herculaneum and Ostia				
Early Imperial pe	eriod to 74 ce			First-fourth century ce*
Pompeii 1.2.7-8 1.3.11 1.3.21-22 1.3.28 1.4.3 1.4.27 1.6.5 1.7.8 1.8.1 1.8.8 1.8.15 1.9.4 1.10.2-3 1.11.1-2 1.11.10-11 1.11.16 1.12.12-13 1.13.13 1.14.15 II.1.1/13 II.4.7	II.8.2-3 III.8.8 V.1.1/32 V.1.13 V.2.13 V.2.19 V.4.6-8 VI.1.2 VI.1.5 ◆ VI.1.17 VI.1.18/20 VI.2.1/32 ■ VI.2.5 VI.3.18-20 VI.3.23-24 VI.4.1-2 VI.4.3 VI.5.12 VI.8.8 VI.8.9 VI.10.1/19 ■ VI.10.3	VI.14.35-36 VI.16.1-2 VI.16.32-33 VI.16.40 VI.17.2 VII.1.1/62 VII.1.32 VII.1.38-39 VII.2.15 VII.2.32-33 VII.3.1/40 VII.3.9 VII.4.4 VII.6.20 VII.7.8-9 VII.9.22 VII.9.30-31 VII.9.57 VII.12.15-16 VII.13.24 VII.13.24 VII.16.7-8	VIII.2.24 VIII.3.22 VIII.3.23 VIII.3.29 IX.1.6 IX.1.8 IX.1.13 IX.1.15-16 IX.7.13 IX.9.1 IX.9.8-9 Herculaneum II.6-7 ■ IV.15-16 ■ IV.17 ▼ V.6 ● Ins. Or. II.6 ● Ins. Or. II.13	Ostia ▶ 1.2.5 room 6 ▶ 1.3.1 room 15 1.3.1 room 16 ▶ 1.12.10 1.16.1 Ⅱ1.6.5 Ⅲ1.10 ▶-❖ Ⅲ.5.1 room X Ⅲ.7.3 room 2 Ⅲ.7.3 room 6 Ⅳ.2.1 room 2 Ⅳ.2.3 room 3 Ⅳ.2.3 room 10 ▶ Ⅳ.2.6 ▶ Ⅳ.7.4 *According to Hermansen the oldest bar at Ostia may have dated to the first century CE (I.10.2 not in this survey), See note 145.
 ■ Early Imperial period ◆ Mid first century ce to 79 ce ● Post Augustus ▼ After 62 ce ▶ Third century ce ❖ Fourth century ce. 				

Fig. 2.5 List of bars surveyed.

Pompeii, six at Herculaneum and 15 at Ostia (see appendix for full list) — a sample size large enough to allow for a meaningful and productive analysis. Importantly, this data set also allows for a comparison of food and drink outlets from different time periods. Although it is often difficult to precisely date the time at which a shop was converted into a bar, a broad chronological timeline can be outlined (Fig. 2.5).¹⁴⁵

Sampling technique (data collection and procedures)

The on-site surveys were conducted during numerous field-trips between 2013 and 2017. Data were input directly into an Apple iPad as they were collected. They were then transferred onto a Macintosh laptop for storage and analysis. The data were input into an Excel spreadsheet, which allowed for a quantitative and

¹⁴⁵ For dating see, Ellis, Roman Retail Revolution, 157-166; Monteix, Les Lieux de Métier, 349-370. For specific dates, Pompeii: V.1.17, VI.2.5, VI.10.3 see, Ellis, Roman Retail Revolution, 167, 157, 164. Herculaneum: IV.15-16, IV.17, V.6, Ins. Or. II.6, Ins. Or. II.13 see, Monteix, Les Lieux de Métier, 384, 387, 389, 411, 418. Ostia: I.2.5 room 6, NSc 1958, 29, Amiet et al., "The marble-clad bars of Ostia," 2; I.3.1 room 15, J. T. Bakker, ed., The Mills-Bakeries of Ostia: Description and Interpretation (Amsterdam: J. C. Gieben, 1999), 51; I.10.2, Hermansen, Ostia, 132, 167; I.12.10, Bakker, accessed January 29, 2018, http://www.ostia-antica.org/regio2/6/6-5.htm; III.5.1 Ellis, Roman Retail Revolution, 222; IV.2.6, H. Stöger, Rethinking Ostia: A Spatial Enquiry into the Urban Society of Rome's Imperial Port-Town (Leiden: Leiden University Press, 2011), 118-119; IV.7.4, Bakker, accessed January 29, 2018, http://www.ostia-antica.org/regio4/7/7-4.htm.

comparative analysis of the bars and their features. All measurements are in metric and are as accurate as possible, taking into account decay and reconstruction. A Leica DISTO D210 laser measure was used for larger scale measurements — such as rooms — which has an accuracy of \pm 1.0 mm. There were three main areas for which data were collected — room size, shop furniture, and wall and floor decoration.

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Fig. 2.6 On-site drawings.

Rooms: Wherever possible, dimensions of all the

rooms associated with a given establishment were taken. This encompassed width and depth of rooms the size of the shop front, and the position of partition walls or other structures. In addition, related contextual features such as threshold and pavement depth were also recorded. Although it is not always clear if connected rooms were part of the retail unit, these data were nevertheless collected for further investigation.

Fixtures and fittings: The counter shape was noted, and its overall dimensions measured. Particular

Fixtures and fittings: The counter shape was noted, and its overall dimensions measured. Particular attention was paid to counter height as this would help to determine how it was used by both customers and staff. For example, the height might be suitable for food preparation or at a level more comfortable for customers to lean on as they consumed their purchases. If stepped shelves were included in the counter design, the depth, width and height was recorded for each shelf. The number of *dolia*, if any, was documented and the diameter of the *dolia* lip, both inner and outer (where possible) was added to the database. The measurements of hearths, both attached to the counter and independent units, were also recorded. At each location I made on-site sketches of each feature and annotated them with their measurements (Fig. 2.6). These sketches, along with the data, were then used to draw up accurate plans of the bars and their features in Adobe Illustrator.

Statistical treatment

The collected data were subjected to detailed statistical analysis, which highlighted trends in the way the bars were designed. For example, via the database, the bars could be sorted into groups to highlight elements such as their size, counter shape and types of cooking facility. Comparisons could be made across the individual

¹⁴⁶ For the issues of the identification of connected rooms and their function, see pp.161-164.

sites and between all three sites. Owing to the lack of clarity in distinguishing whether or not connected rooms were part of the retail activity, I chose to focus my study on the main bar room.147 As the size of this main room varied considerably, I split the sample of 97 properties into quartiles, adopting the approach taken by Wallace-Hadrill for his analysis of houses in Pompeii and Herculaneum. 148 This approach is particularly useful when dealing with spaces of such varying scale and has also been adopted by Laurence in his study of Roman space and by Flohr to shed light on the fullonicae.149 Plans of the bar rooms were then printed out and sorted according to quartile. They were then further categorised according to configuration and features to form the basis of the design and spatial layout analysis. 150 The aim of this was to highlight trends or anomalies in design and to track changes as the size of the bar room increased.



Fig. 2.7 The Thermopolium of Asellina at IX.11.2, Pompeii.



Fig. 2.8 The bar at VII.15.5 Pompeii, with its unusual counter position.

Restrictions/limiting conditions

Access: Although many of the bars at the three sites are freely accessible, some require permission for access and this imposed some limitations on the bars that could be studied. Although I was granted access to many of the structures, this was sometimes not possible owing to safety issues on site. Over the years, requests have been granted for structures initially not available for survey, particularly at Pompeii as restoration work was taking place. These have included the bar at IX.11.2 (*Thermopolium* of Asellina) at Pompeii, often regarded as

¹⁴⁷ For houses connected to *tabernae*, see H. Parkins, "The 'consumer city' domesticated? The Roman city in élite economic strategies," in Parkins, *Roman Urbanism*, 100–05.

¹⁴⁸ Wallace-Hadrill, Houses and Society, 80-82.

¹⁴⁹ Laurence, Roman Pompeii, 143-45; Flohr, World of the Fullo, 78.

¹⁵⁰ For example, each set of properties in a quartile was sorted according to counter shape, placement and location of hearth.

one of the best examples of a Roman bar (Fig. 2.7). As well as having a well preserved counter and attached hearth, the finds and inscriptions from this property provide a great deal of information about the characteristics of a bar and its *instrumentum*. Another bar to which access was not initially granted was at VII.15.5, interesting because it has a different spatial arrangement

from the other bars and is one of only two where



Fig. 2.9 The reconstructed counter at the bar at V.1.13 Pompeii.

the counter is placed within the property rather than at the front threshold (Fig. 2.8). ¹⁵² I was finally granted permission to survey these bars, unfortunately too late to be included in the data analysis for this survey. Although not included, they have helped to add perspective and context to the overall study.

Restoration: A potential issue with the archaeological remains is that, in some cases, what is visible on site today is not always a product of antiquity. Although in most cases it would seem that restoration has been as true to the original features as possible, there are cases that give cause for concern. ¹⁵³ For example, the counter at V.1.13 at Pompeii presents an unusual shape, but in fact it has been incorrectly reconstructed and the front section was originally a basin (Fig. 2.9). ¹⁵⁴ Also at Pompeii, in the bar at III.6.1, the counter originally had a small cage-like structure in front but this has since disappeared. ¹⁵⁵ An image from *PPM* shows the counter at I.9.4 when it was found in a ruinous state, which allows us to see the extent of modern restoration that took place. ¹⁵⁶ These examples illustrate that it is paramount not to take anything at face value if we are to get a true picture of the bars' design and function. To address this issue, I cross-checked my field work with the original archaeological reports, which allowed me to identify any discrepancies that might have arisen as the result of restoration and ensured that I was dealing with accurate information. The reports also revealed the finds made at the time of excavation as well as any inscriptions and decoration that have since disappeared. However, as Wallace-Hadrill notes of Pompeii, 'its excavation and scholarship prove a nightmare of omissions

¹⁵¹ NSc 1911, 430–32, 455–56; 1912, 28–29, 111–120; Ellis, "The Pompeian Bar," 505–06.

¹⁵² The other property where the counter is not at the threshold is at I.11.16.

¹⁵³ See Ellis, "The Pompeian Bar," 36–37; Fant and Attanasio, "Bars with marble surfaces at Pompeii," 2–3

¹⁵⁴ Ellis, "The Pompeian Bar," 327; Packer, "Inns at Pompeii," 40.

¹⁵⁵ Ellis, "The Pompeian Bar," 314.

¹⁵⁶ PPM I, 94.

and disasters ... information has been ignored, neglected, destroyed and left unreported and unpublished. This is especially true for the recording of the find assemblages of the shops. Despite this, when the finds are recorded, they are especially valuable (as at the bar at IX.11.2 Pompeii) and can be used as a basis from which to assess the more scanty assemblages from other bars.

Image library

All properties and features, including any decoration, were extensively photographed and a collection of more than 20,000 images was labelled to form a searchable database in iPhoto. As well as being retrievable from iPhoto, the master files were backed up onto two external hard drives and to the Cloud. As the photographs were taken over a number of years, they also provide a valuable record of the structures, charting their restoration or deterioration.

The appendix

The data along with the photographic evidence were collated to form a record of the survey findings in an appendix. This includes plan drawings with measurements of the counters and hearths as well as photographs of the features. A short bibliography for each bar is also included. The material is organised by site and address details (regio, insular, door/room number).

¹⁵⁷ Wallace-Hadrill, Houses and Society, 65.

¹⁵⁸ For finds assemblages and the recording of them, see Ellis, "The Pompeian Bar," 33–35; Ellis, *Roman Retail Revolution*, 76–83; S. L. Dyson, *Community and Society in Roman Italy* (Baltimore: Johns Hopkins University Press, 2000), 165–66; J. Berry, "Household artefacts: towards a reinterpretation of Roman domestic space," in *Domestic Space in the Roman World: Pompeii and Beyond*, eds. R. Laurence and A. Wallace-Hadrill (Cambridge: Journal of Roman Archaeology, 1997), 183–84.

2.2 The sensory approach

The large amount of data amassed through the study of the design and layout of the bars formed the basis for the exploration of the sensory experience, an area that offers new insights into this aspect of Roman culture. As this particular type of study — focusing specifically on the food and drink outlets — has not been undertaken before, I have tried to develop methodologies to gain a deeper understanding of the lived experience. As well as analysing the ancient literature — a common practice in phenomenological studies of Roman culture — I have sought to widen the scope of my research, incorporating a multidisciplinary approach. 159

There were three main areas to consider when assessing what it was like to work in or visit a bar:

- Ergonomics and functionality: Modern design guidelines were used to determine the extent to which the features of the ancient bars were fit for purpose.
- Sound, smell and taste data collection: These data, collected from the ancient literature, were key to understanding the sensory landscape of the bar.
- Sensory mapping: Various elements were plotted onto floor plans to create a visual representation of how the different spatial arrangements affected the sensory experience.

Ergonomics and functionality

The data collected during fieldwork enabled me to investigate the extent to which the spatial arrangement of the bars made it possible to offer an effective and streamlined service, and to assess the extent to which the fixtures and fittings were ergonomically suitable for users.¹⁶⁰

¹⁵⁹ Mark Bradley, "Foul Bodies in ancient Rome," in Bradley, *Smell*, 133–145; Boulay, "Tastes of Wine," 197–211; Day, "Scents of Place," 176–192; Gowers, "Tasting the Roman World," 90–103; Helen King and Jerry Toner, "Medicine and the Senses: Humors, Potions, and Spells," in Toner, *Cultural History*, 139–161; Paulas, "Tastes of the extraordinary," 212–227; Potter, "The Social Life of the Senses," 69–89; Totelin, "Tastes in ancient botany," 60–71. Wallace-Hadrill "The senses in the Marketplace," 69–89.

¹⁶⁰ The use of modern ergonomic guidelines was an approach taken by Mac Mahon to assess the practicality of Roman bar counters: Mac Mahon, "The Taberna Counters," 75–8. Roman cooking objects, Green, "Cooking Class," 133–147.

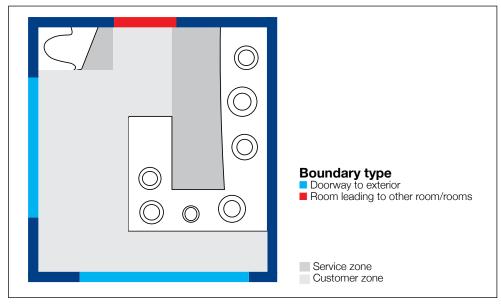


Fig. 2.10 Herculaneum II.6, showing the calculation of customer and service zones.

The division of space

To establish how the layout of the main bar room and the design, size and placement of fixtures and fittings affected staff and customer areas, I divided the floor space into two zones: staff and customers (Fig. 2.10). ¹⁶¹ I designated the space behind the counter as a staff zone and the remaining space as a customer zone. This zoning was plotted onto the floor plans of all 97 properties in the survey, and the floor area of each zone was calculated. The resulting data were grouped into quartiles and used to create scatter graphs to highlight any correlations. Organising the data into quartiles meant that it was possible to compare how the differences in the division of floor space changed as the size of the main bar room grew.

Circulation routes

The next step was to consider staff and customer routes through the bar room to see how decisions taken on counter design and hearth position affected the working zone. ¹⁶² In particular, the analysis aimed to highlight areas where clientele and staff routes might have clashed. ¹⁶³ Potential routes available to both staff and clientele

¹⁶¹ See Carandini's study of the Villa of Sette Finestre where the house was divided into domains reserved for the owner and slaves, Andrea Carandini and M. Rossella Filippi, eds., *Settefinestre: Una Villa Schiavistica Nell'Etruria Romana* (Modena: Panini, 1985). Wallace-Hadrill's division of space based on rank, see Andrew Wallace-Hadrill, "The Social Structure of the Roman House," *Papers of the British School at Rome* 56 (1988): 52, https://doi.org/10.1017/S0068246200009569.

¹⁶² For the exploration of circulation routes in a domestic context, see Simon P. Ellis, "Theories of Circulation in Roman Houses," in *Theoretical Roman Archaeology and Architecture: The Third Conference Proceedings*, ed. Alan Leslie (Glasgow: Cruithne Press, 1999), 75–98; Mark Grahame "Reading the Roman House: The Social Interpretation of Spatial Order," ed. Alan Leslie *Theoretical Roman Archaeology*, (1999): 48–74.

¹⁶³ Fred Lawson, Restaurants, Clubs and Bars: Planning, Design and Investment in Food Service Facilities

were sketched onto floor plans and any overlaps were highlighted. For the working area, I based the most practical layout on the kitchen work-triangle concept, first developed in 1920s by Lillian Moller Gilbreth, an American industrial psychologist and engineer. The concept suggests that the most efficient kitchen layout consists of a triangle formed by the points at which the primary tasks are performed: the cooker, the sink and the refrigerator. In the case of the Roman bar, I converted this to customer-service points, storage and hearth area.

To evaluate the circulation routes in the bars, I selected a sample of establishments across the four quartiles and mapped out the potential routes. The selection of bars was based on attaining a broad overview of the different set-ups, allowing for a comparative analysis between those bars that had seemingly achieved streamlined working practices and to highlight those less optimally designed. This methodology of mapping routes on the bars is, however, to some degree subjective. We cannot know precisely how people moved around the space, although the main routes are self-evident. Furthermore, most of the bars retain only their counters and hearths; other furniture would have been present that may have impeded traffic routes. Also, the circulation routes take into account only one person, whereas there would have been multiple customers and probably more than one server. To get a more accurate picture would involve replicating the space and doing a time-and-motion study. Nevertheless, this type of mapping gives us an idea of the practicality of the design employed within the space.

Ergonomic realities

In this study I have further developed the methodology used by Mac Mahon in his analysis of the *taberna* counters of Pompeii and Herculaneum. In it, he compared the dimensions and design of modern bar counters with their Roman counterparts to assess how the latter were used. ¹⁶⁵ To do this he referred to industry guidelines on the design of the fixtures and fittings installed in modern restaurants and bars, based on a book written by Fred Lawson, a consultant on food-service facilities. ¹⁶⁶ Taking this methodology a step further, I aimed to understand the extent to which Roman design was ergonomically friendly. This was particularly

(Oxford: Butterworth Architecture, 1994), 75–6; Anthony Sully, *Interior Design: Conceptual Basis* (Heidelberg: Springer, 2015), 37–51.

¹⁶⁴ Originally called the circular workspace by Gilbreth, this became known as the work triangle. For the concept, see Gertrude Tennyson, 'The *Herald Tribune* Kitchen,' in *The Better Homes Manual, ed.* Blanche Halbert (Chicago: University of Chicago Press, 1931), 475–78 (this can be accessed at https://archive.org/details/betterhomesmanua00halbrich).

¹⁶⁵ Mac Mahon, "The Taberna Counters," 75-8.

¹⁶⁶ Lawson, Restaurants, Clubs and Bars.

important to reveal more about the experience of the staff who would have interacted with the fixtures and fittings on a daily basis, no doubt for long hours. I was especially interested to find out how the height of the counters — which varied considerably — stood up to modern guidelines. To get as accurate a picture as possible, I used the recommendations for modern bars based on the average heights for men and women in the twenty-first century. I adjusted these to match the average height for Roman men and women as defined by the study of Pompeian skeletal data. This allowed me to determine which of the Roman counters met modern guidelines for ergonomically comfortable usage (pp.77-78).

Customer numbers

Continuing with this methodology, I sought to calculate the number of customers specific bars could accommodate. To get an idea of how many customers standing at the counter could be served at any one time,

I drew on Lawson's person/width allowance. 168 This is calculated at 60cm per person and includes elbow room. I then used Adobe Illustrator to draw scaled human figures to represent the customers, placing them around the counters at 60cm intervals and in the correct ratio to the counter, to get the final figure (Fig. 2.11). There are obvious limitations to this methodology as it only tells us how many

customers could be served if

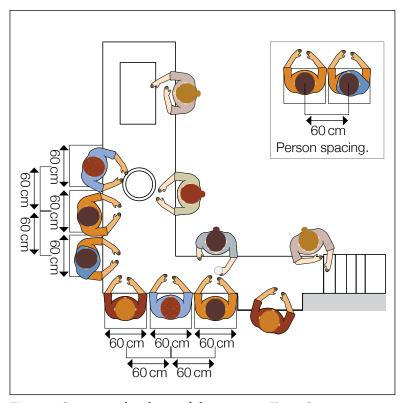


Fig. 2.11 Customers placed around the counter at II.4.7. Customer numbers based on Lawson's space allocation.

¹⁶⁷ For the dimensions of modern counters, see Lawson, *Restaurants, Clubs and Bars*, 82–5. Lawson bases his calculations on the 'average' height of a woman but does not specify the height he uses, Lawson, *Restaurants, Clubs and Bars*, 82. Calculations were therefore made on the basis of a woman in England at 1.64 m and Male 1.77 m, aged 25–34 in 2012, data taken from Alison Moody, "Adult anthropometric measures, overweight and obesity," in eds. Rachel Craig and Jennifer Mindell, *Health Survey for England—2012*, vol. 1 (Leeds: Health and Social Care Information Centre, 2013), 10:20. Average height of a Roman at Pompeii: Men 1.67 m, women 1.54 m, Peter Garnsey, *Food and Society in Classical Antiquity* (Cambridge: CUP, 1999), 58. See also, Estelle Lazer, *Resurrecting Pompeii* (London: Routledge, 2009), 179-184. 168 Lawson, *Restaurants, Clubs and Bars*, 85.

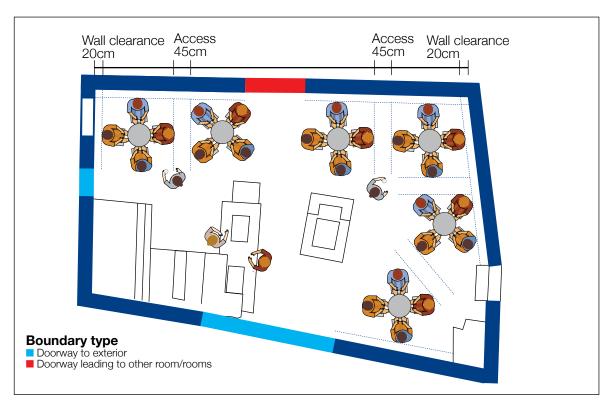


Fig. 2.12 The bar at IV.7.4 Ostia with calculation of number of tables.

they took up all the available space at the counter — it does not take into consideration the depth of customers that could be waiting behind the front row of those being served. Nevertheless it gives a ballpark figure from which to begin to assess customer numbers and lays the foundations for future studies to gain new insights into a neglected area of the customer experience.

Moving on to the floor space, I also attempted to predict how many guests could be accommodated if there was enough room for tables and seating (Fig. 2.12). As well as giving clues as to the customer numbers, this experiment could give an insight into the primary function of the bar. For example, without the space for tables, the bar's primary function would probably be to provide wine and quick snacks rather than more substantial meals. As to the type of furniture that might have been used in the bars, I scrutinised the frescoes in the back room of the bar at VI.10.1 Pompeii, which depicts drinking and gaming scenes. Finding similar surviving examples of furniture from Herculaneum, I used these dimensions to plot onto the room plans of the bars. When plotting the furniture onto the floor plans, I incorporated the guidelines from Lawson for wall clearance (20cm) and access space for service (45cm). Although it is likely that the Roman proprietors and customers did not worry about these issues — they probably had little regard for personal space, and

¹⁶⁹ See note 243.

¹⁷⁰ Lawson, Restaurants, Clubs and Bars, 78-81.

health and safety regulations were not an issue — including them meant that I had an objective approach to the calculations.

Sensory data collection

Although ancient literature, graffiti and visual media offer much information about the lived experience of the ancient cities, an empirical approach would provide a chance to establish a closer sense of the reality of the ancient experience. I therefore undertook some on-site experiments to flesh out what the soundscape might have been like for the ancient inhabitants. My main aim was to calculate how far sounds (and to a lesser extent smells) would have travelled to get a better understanding of how these sensory elements might have become part of the experience of the bars' clientele. To do this, I adopted the phenomenological methodologies developed by Sue Hamilton and Ruth Whitehouse in the Tavoliere–Gargano Prehistory Project.¹⁷¹ Although their experiments were not done in built-up sites such as Pompeii, the types of data they collected — which related to everyday life — closely resembled the data I wanted to collect. This type of on-site methodology has not been used in connection with Roman bars and it offered new avenues of sensory exploration.

Limitations of the methodology

Although I am confident that the methodologies adopted yield fresh understanding of the design and experience of bars, while also offering a potential model for other studies in the field, I acknowledge the existence of some limitations. Each of these, however, has been negotiated. Firstly, the sites are not as they were 2,000 years ago. Rather than the everyday sounds of people going about their business, with the noise from carts, commercial activities, the smells of food being cooked in the bars or bread from the bakeries, we instead have sites populated by tourists. So this is a far from realistic base from which to start to try to calculate how far sounds travelled. However, when I undertook these experiments (October/November), the sites were reasonably quiet and it was often possible to calculate sound levels in areas completely free of tourists; although not completely realistic, each site had a 'zero' noise base level. In other cases, the presence of tourists was useful and offered opportunities to record sound levels that could act as a proxy for the Roman soundscape. For example, a baby crying, a person sneezing or builders shouting to one another. Another sampling issue was that although I managed to conduct the experiments across the three sites, it was not possible to do them at multiple times or in different atmospheric conditions/times of the year. Additionally, given the nature of the project, the collected data are

¹⁷¹ Full details of the methodology in Hamilton et al., "Phenomenology in Practice," 31–71.

based on my responses alone. A future research project developing this study further could incorporate a team of people to make for a more robust set of data. Despite these limitations, which obviously must be borne in mind when assessing the data, I believe that these experiments are a useful starting point to build on.

To capture these data I used a variety of iPhone apps.

For example, to calculate decibel levels, I used an iPhone equipped with Decibel X, version 5.2.1 sound meter app and for the weather conditions I used WindCompass, which gives wind speed and direction as well as temperature (Fig. 2.13). I also noted the general weather conditions, date

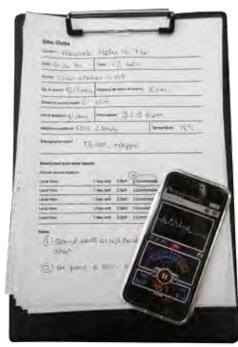


Fig. 2.13 On-site data collection at Ostia.

and time of the reading. The data were then entered into an Excel spreadsheet.

System 1: Data collection

Based on the Tavoliere–Gargano Prehistory Project methodologies, I developed two slightly different systems of data collection in response to the demands of the data being collected. The first was used to determine how far sounds directly connected to the bar would travel, for example, dice being shaken in a *fritillus* or coins being dropped onto a counter top. Of course, with the majority of the bars no longer being roofed, if was not possible to get an accurate reconstruction of how the sound would have travelled, nevertheless it gave an indication. In this case, I recorded the dB level at the source of the sound, from a distance of 10cm, then moved away from the source to assess the extent to which it was audible. The results were mapped and the data were entered into an Excel spreadsheet.

System 2: Data collection

The second system of data collection was focused on the streets. For example, I calculated the distance that the sound of water from a fountain might travel, or a shout or a baby crying. In this case, the source of the sound was plotted onto a map and the location number was entered into the spreadsheet. I then walked away from the sound until it was just audible, this was marked on the map and the location number was noted. As the sound did not always stop conveniently at a doorway, marking its farthest point of audibility on the map

REDACTED

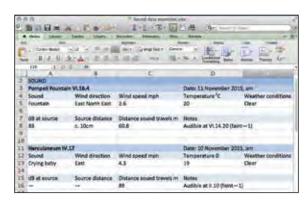


Fig. 2.14 Distance calculation for the fountain outside VI.16.4 Pompeii, on the Pompeii Mapping Project site.

Fig. 2.15 Street sound database in Excel.

enabled a more accurate calculation of the distance travelled. To estimate the distance between the two points, I used the scale on the maps of Herculaneum and Ostia, and for Pompeii I used the measuring tool on the Pompeii Bibliography and Mapping Project website (Fig. 2.14).¹⁷²
So, for example, the sound of running water from the fountain outside at VI.16.4 Pompeii was still faintly audible at VI.14.20, the distance calculated on the website came out at 60 metres. This method was also used for smells such as perfume on a passer-by or food smells. Although not original ancient aromas, these data helped to shape the overall potential smellscape. All data were added to an Excel spreadsheet (Fig. 2.15).



Fig. 2.16 The blacksmith at work at Weald and Down Living Museum.

Although the commercial activities that once took place in the Roman towns are now silent, where possible I attempted to supplement the missing data. To do this, I visited Butser Ancient Farm in Hampshire and the Weald and Downland Living Museum in West Sussex, both of which are in the UK. These sites offered the chance to replicate the methodologies already used to collect data concerned with similar Roman workshops. For example, particularly useful was the working blacksmith's shop and the bakery with its fully functioning millstone, sounds and smells that would have formed part of the Roman sensory landscape (Fig. 2.16).

Sensory mapping

The data gleaned from the ancient literary sources, reliefs and paintings were used to create sensory profiles to establish what sights, sounds, smells and tastes would have been experienced in the bars and surrounding neighbourhoods. The term 'sensory profile' is usually used to describe the chemical composition of a specific

¹⁷² http://digitalhumanities.umass.edu/pbmp/.

substance but here I have developed its usage and apply it to different aspects of the urban landscape of the ancient cities. To create a sensory profile of the bars, I collated the data into two spreadsheets, one for smell and one for sound. I then sorted them into sections according to type. For example, the olfactory



Fig. 2.17 Excel spreadsheet with examples of foodstuffs mentioned in the sources as being sold in the bars.

list included a food category for meat and poultry and to this was added sub-sections that contained the detail — in this case ham, liver, sausages, thrushes and tripe (Fig. 2.17). I developed two methods in which to illustrate the findings. In the first, I chose to create smell and soundwheels, for which I used Adobe Illustrator. This form of illustration is often used to describe the smell and flavour of wines or the different notes found in fragrances. The sensory wheels allow for similar types of smell or sound to be colour-coded, making for a clear and succinct way to display the data.

For the second illustrative method, I combined the sensory data with the archaeological remains to map the various smell and soundmarks within the bars (see chapter 8).¹⁷³ I chose a sample of the establishments to create the visualisations for, the selection of which was based on a cross-section of the different floor plans, and the position and design of the fixtures and fittings. Again, I used colour-coding to denote the different elements in the smell or soundscape. A solid coloured circle represented the heart of the smell or sound and concentric circles suggested the movement of the stimulus out from the centre. To denote smell, the concentric circles were a solid line and to illustrate sound I used dotted lines. This particular style of sensory mapping has been developed by Kate McLean, who has created smell maps for a number of modern cities. ¹⁷⁴ Although McLean uses this methodology to map modern urban landscapes, I have adapted it for use in interior spaces and the neighbourhoods of the ancient cities. Visually, the mapped elements help to demonstrate how smells and sounds overlap and change as you move through the commercial space. The maps highlight the trigger points for sensory stimuli within the bars, allowing for a comparative analysis between the different spatial layouts within and across the three sites, demonstrating how the design of the bar was integral to the way people experienced the space.

¹⁷³ A smell or soundmark is the olfactory or auditory equivalent of a landmark, which has a distinctive meaning within a specific environmental context. See Henshaw, *Urban Smellscapes*, 225.

¹⁷⁴ See McLean, "Communicating and Mediating Smellscapes," 67–78; http://sensorymaps.com. For a different approach to mapping see Mary J. Dobson, *Contours of Death and Disease in Early Modern England* (Cambridge: CUP, 2010), 14.

Additionally, I undertook space syntax analysis to investigate the levels of accessibility and circulation provided by the various spaces.¹⁷⁵ The application of space syntax is not new to the field of ancient history and has been used to good effect by numerous scholars.¹⁷⁶ However, here I have developed this method to highlight the sensory nature of the spaces. To that end, each node includes the colour-coded sensory elements for the space as illustrated on the mapped floor plans. These adapted J-graphs therefore provide what is essentially a sensory 'fingerprint' for each establishment. The graphs can then be used not just to assess how the space was organised but also to highlight the spatial difference of the sensory elements.

In addition, I mapped a number of different neighbourhoods in order to investigate how other trades in close proximity to the bars would have affected the sensescape. Mapping selected areas also revealed distribution patterns, providing an overall picture of the sensory landscape. The choice of which areas to map was based on the density of other trades, especially where a particular type of business seemed to dominate. I then selected a bar as the central point, and other trades and sensory stimuli were mapped within a 50-metre and 100-metre radius. The purpose of the two different catchments was to establish the local sensory landscape and the overall character of the area. For clarity, I also translated these data into a numerically based visual aid to assess the particular characteristics of the neighbourhood. These 'bar codes' act like the sensory J-graphs and provide a fingerprint for the various areas mapped. The bar codes allow for a comparative analysis of different sensescapes in the individual cities and across them.

Various approaches have been undertaken by scholars in an attempt to understand the sensory landscape. Margolies, for example, explored the smells of New York, although they were listed rather than actually plotted onto a map. 177 Porteous considered various smellscapes, bringing together testimonies from a number of authors. 178 Although both of these textual approaches aid understanding of the landscape, new methods of analysis need to be developed and standardised in order to push the story of the senses forward. Indeed, using the approach I have adopted here could benefit other areas of cultural and phenomenological studies, not just in the field of ancient history but in modern contexts.

¹⁷⁵ Bill Hillier and Julienne Hanson, The Social Logic of Space (Cambridge: CUP, 1984).

¹⁷⁶ See, for example, Stöger, *Rethinking Ostia*; Mark Grahame, *Reading Space*: Social Interaction and Identity in the Houses of Roman Pompeii: A Syntactical Approach to the Analysis and Interpretation of Built Space (Oxford: Archaeopress, 2000).

¹⁷⁷ Eleanor Margolies, "Vagueness Gridlocked: A Map of the Smells of New York," in Drobnick, *Smell Culture*, 107–17.

¹⁷⁸ Porteous, "Smellscape," 89-106.

3. DEFINING THE BARS

3.1 Definitions

In this chapter, I will begin by examining the modern terms used by scholars to describe the Roman bars. I will then investigate the original Latin terms found in the ancient literature to assess the extent to which the terms used today are appropriate. The second half of this chapter will consider the identification of the bars in the archaeological record and the people who inhabited them.

The terminology used in modern scholarship to describe the food and drink outlets of antiquity is often ambiguous and inconsistently applied. For example, Ellis routinely uses the word bar, whereas DeFelice uses inn and tavern.¹⁷⁹ Jashemski opts for a mixture of bar, tavern and inn, although she seems to slightly favour tavern, as does Ruddell.¹⁸⁰ Hermansen also tends towards the use of the word tavern but he also employs the terms bar, restaurant and inn, sometimes using different terms to describe the same establishment.¹⁸¹ Foss, on the other hand, introduces the terms lunch counter and diner.¹⁸² Clearly, there is little consensus among scholars over which word best describes the food and drink outlets of the Roman world and as a result, there is a lack of clarity in terms of description.

Modern terms

So how accurate or appropriate are these terms in describing the ancient food and drink outlets? According to the entry in the *Oxford Dictionary of English*, the modern definition of the word tavern — one of the more

¹⁷⁹ Ellis, "The Pompeian Bar"; Ellis, "The Distribution of Bars at Pompeii," 371–84; Ellis, "Pes Dexter," 160–173; DeFelice, *Roman Hospitality*; J. DeFelice, "Inns and taverns," in *The World of Pompeii*, eds. J. J. Dobbins and P. W. Foss (London: Routledge, 2007), 474–86.

¹⁸⁰ Jashemski, "The Caupona of Euxinus," 36–44; Jashemski, *Gardens of Pompeii*, vols 1 and 2. Ruddell, "The Inn, Restaurant and Tavern Business".

¹⁸¹ For example, he refers to I.2.5 as tavern (p.30) and bar (p.131); also IV.7.4 as tavern (p.172) and bar (p.173); Hermansen, *Ostia*.

¹⁸² P. W. Foss, "Kitchens and dining rooms at Pompeii: The spatial and social relationship of cooking to eating in the Roman household," (PhD diss., University of Michigan, 1994), 18.

popular options — is an 'inn or public house', which equates to an establishment selling drink and possibly food, and perhaps also providing accommodation. The entry adds that the word's origin is in Middle English, from the Old French word taverne and that it derives from the Latin word taberna. 183 The earliest literary use of the word tavern can be found in the thirteenth century in Memoranda K. R. (1286) and R. Gloucester's Chronicle (1297). It is also attested to in Shakespeare, Swift and Dickens. 184 So, although the word tavern is derived from the Latin taberna, it is not contemporary to the Roman period and is a label that has been applied to these establishments by modern scholars. The problem with the use of the word tavern, along with the other terms used, is that they have certain modern connotations that do not necessarily sit well with the ancient establishments. For example, modern food and drink premises tend to be adult-oriented and focused on the sale of alcohol as a means of enjoyment, often resulting in intoxication. 185 For the Romans, alcohol was part of everyday life — it was not a lifestyle choice but one of necessity, as they had a limited range of drinks. 186 In contrast, Foss's lunch counter and diner, terms that are particularly culturally specific, tend to focus primarily on food, which again does not really correlate with the operation of the Roman outlets. In the absence of a truly succinct modern term to denote a Roman food and drink outlet, I will use the word bar throughout this thesis, although its modern familiarity does pose a risk of misinterpretation, which must be borne in mind. Unlike the terms tavern or inn, which are not as frequently used today and are rather anachronistic, the word bar is common currency and is understood to denote an establishment that sells alcohol and also often offers either snacks or meals.

Latin terminology

Turning to the Latin origin of the word *taberna*, the second to third century AD Roman jurist Ulpian defined it as 'any kind of building fit to dwell in'. According to Festus, who compiled a 20-book lexicon on the meaning of words (dated to the second century AD), 'this was the most ancient kind of abode used among the Romans,

¹⁸³ Oxford English Dictionary Online, www.oed.com, 1808. Accessed June 21, 2017.

¹⁸⁴ Oxford English Dictionary Online, www.oed.com, 1808. Accessed June 21, 2017. Shakespeare: Henry IV, Part I, 1.2:150; King Lear, 1.4:759. Dickens: Bleak House, Chapter 5; David Copperfield, Chapter 49. Swift: A Modest Proposal, The Journal to Stella.

¹⁸⁵ Modern drinking culture, see M. Savic et al., "Defining "drinking culture": A critical review of its meaning and connotation in social research on alcohol problems," *Drugs: Education, Prevention and Policy* 23, no. 4 (2016): 270–82, https://doi.org/10.3109/09687637.2016.1153602.

¹⁸⁶ Giacosa, *A Taste of Ancient Rome*, 191. For beverages consumed in antiquity, see S. A. Mudd, "Constructive Drinking in the Roman Empire: The First to Third Centuries AD" (PhD diss., University of Exeter, 2015).

¹⁸⁷ *Dig.* 50.16.183. For a discussion of the term *taberna*, see Ellis, *Roman Retail Revolution*, 29; C. Holleran, "Finding commerce: the *taberna* and the identification of Roman commercial space," *Papers of the British School at Rome* 85 (October 2017): 147–151, https://doi.org/10.1017/S0068246217000010.

and that it was from the early use of such dwellings that the words *taberna* and *tabernaculum* were applied to military tents. The term *taberna* eventually denoted a shop/retail establishment — selling a variety of goods including food and drink. For the Romans, clarification of the type of *taberna* could be denoted with a modifier such as *taberna vinaria* (wine), or *unguentaria* (perfume). However, according to Kleberg, the term *taberna*, meaning a drinking place, eventually prevailed without the need for adjectives. The original Roman usage has persisted to the modern day, with many publications using the term *taberna* to refer to almost any kind of shop, which muddles the definition. Pevertheless, it is clear that a distinction between *taberna* and any modern interpretations such as 'tavern' must be maintained, as the use of *taberna* — both by the ancients and by modern scholars — is too ambiguous.

As to the definitions of the other main terms used to describe a hospitality businesses, an analysis of the ancient literature is helpful. ¹⁹³ In order to get a clearer idea of the characteristics of each business, I will provide a brief overview of each type. As well as the term *taberna*, Kleberg identified 11 other words used by the Romans to denote a hospitality business. These include *caupona*, *deversorium*, *hospitium* and *stabulum*, all of which he says offered food, drink and accommodation. ¹⁹⁴ There was also the *popina*, which offered food and drink but no accommodation, and the *thermopolium*, which supplied hot drinks. ¹⁹⁵ Curiously, the term *thermopolium* was not common currency with the Romans — in fact, it appears only three times in the literature, in plays by Plautus — but it is nevertheless often used by modern scholars. ¹⁹⁶ Despite the term's dubious provenance, it was presumably understood by Plautus' audience. ¹⁹⁷

¹⁸⁸ Festus, s.v. Contubernales, Tabernacula, Adtibernalis, *De Verborum Significatione*. See also http://penelope.uchicago.edu/Thayer/E/Roman/Texts/secondary/SMIGRA*/Taberna.html, accessed June 13, 2017. 189 Var. L. 8.55.

¹⁹⁰ *Taberna vinaria*, Apul. *Apol.* 57.20; Amm. Marc. 28.4.4. Perfume, Sen. *Ep.* 108.4; Suet. *Aug.* 4.2. For further examples, see Kleberg, *Hôtels*, *Restaurants et Cabarets*, 19.

¹⁹¹ Kleberg, Hôtels, Restaurants et Cabarets, 20-21.

¹⁹² DeFelice, Roman Hospitality, 20.

¹⁹³ The less commonly used terms, *Ganeum*: Apul. *Apol.* 98.20, Liv. 26.2.16, Plaut. *Men.* 703, Plin. *HN* 8.77, Suet. *Calig.* 11.1.4. *Gurgustium*: Cic. *Pis.* 6.13, Aug. op. imp. 6, 9. *Lixa*: Liv. 39.1, 5.8. Definitions, see Kleberg, *Hôtels, Restaurants et Cabarets*, 6–20; Charlton T. Lewis and Charles Short, *A Latin Dictionary*, www. perseus.tufts.edu; *Harper's Dictionary of Classical Antiquities* (1898), www.perseus.tufts.edu; *A Dictionary of Greek and Roman Antiquities* (1890), www.perseus.tufts.edu.

¹⁹⁴ For *caupona* linked to accommodation, see *Dig.* 4.9.5.pr; *Dig.* 4.9.6.pr; Cic. *Div.* 1.57.3; Lucil. 3.128; Petron. *Sat.* 98.1.2; Plin. *HN* 16.158.4; sale of food and wine Apul. *Met.* 1.5.10, 1.7.23; Lucil. 3.128; Cic. *Phil.* 2.77.3. For *deversorium* linked to accommodation, see Cic. *De or.* 2.234.7; Petron. *Sat.* 124.2.3; sale of food and wine Petron. *Sat.* 124.2.3; Cic. *Phil.* 2.105.1. For *hospitium* linked to accommodation, see *Dig.* 4.6.15.3; *Dig.* 39.2.29; Hor. *Sat.* 1.5.4; Juv. 3.166; accommodation and food and drink Apul. *Met.* 1.7. For *stabulum* linked to accommodation, see *Dig.* 47.5.1.6.3; Petron. *Sat.* 6.4.1; Plin. *Ep.* 6.19.5.1; food and drink Mart. 6.94.3; Apul. *Met.* 1.4.19.

¹⁹⁵ For food and drink sold in *popinae*, see Cic. *Phil.* 3.20.4; Mart. 5.70; Suet. *Vit.* 13.3.6; Juv. 11.81; Suet. *Ner.* 16.2.4; Plaut. *Poen.* 41; Prop. 4.8.2; Petron. *Sat.* 92; Juv. 8.158.

¹⁹⁶ Plaut. Curc. 292, Rud. 529, Trin. 1013.

¹⁹⁷ Wallace-Hadrill, "Public honour," 45-46. See also Kleberg, Hôtels, Restaurants et Cabarets, 24-25.

Although a number of the terms used to identify food and drink outlets seemingly refer to establishments offering the same goods and services, their definition was obviously more nuanced, as these passages illustrate.

...they cut off some soldiers in the taverns (*hospitiis*), others as they travelled about on various errands during the winter season. Some on the public highways were lured by decoys into planned ambushes, some were brought by trickery to deserted inns (*deversoria*) and killed.¹⁹⁸

And

while the aediles were instructed to put such restrictions on cook-shops (*popinas*) and eating-houses (*ganeas*) as not to allow even pastry to be exposed for sale.¹⁹⁹

Both *popinae* and *ganeae* provided food and drink and *hospitiis* and *deversoria* additionally offered accommodation. But how did a *hospitium* differ from a *deversorium*, or a *popina* from a *ganea*? There was obviously a perceived difference to the Romans even if it is not entirely clear to us today. The Roman poet Horace (first century BCE) mentions staying in a *hospitium* on his journey to Brundisium, so we might infer that it was considered good enough for an elite traveller to stay in. ²⁰⁰ An establishment in Pompeii also hints at a better class of clientele for a *hospitium*. A painted sign on the façade of one bar describes itself as a *hospitium* with a *triclinium* with three couches, so it was well equipped for the upper classes, who would recline to eat. ²⁰¹ Additionally, the Roman satirist Juvenal (late first-early second century AD) complains that this type of establishment 'cost a lot'. ²⁰² Horace also describes how he must drive his 'horse past the familiar lodgings (*devesoria*)', suggesting that they too were considered acceptable to the elite. ²⁰³ But there are also negative portrayals of this type of establishment as Livy mentions one *devesoria* as a 'mean inn' (*sordido deuersorio*). ²⁰⁴ For the Romans then, the distinction may have been down to the 'class' of the establishment. This type of distinction may also have been the case for the *popina* and *ganea*, as the latter seems to have had a particularly low reputation and was often associated with brothels and prostitution. ²⁰⁵

As well as the literary texts, inscriptions also contain references to the Roman hospitality businesses. However they do not provide any clarity of the different types of bar. Instead they tend to mention

¹⁹⁸ Liv. 33.29.3.2, trans. E. T. Sage, 1935.

¹⁹⁹ Suet. Tib. 34.1.9, trans. J. C. Rolf, 1914. See also SHA 2.6.1.

²⁰⁰ Hor. Sat. 1.5.4.

²⁰¹ *CIL* IV 807 found on the façade of the bar at VII.1.44 Pompeii. However, there is no evidence of a *triclinium* couch within this establishment, see Ruddell, "The Inn, Restaurant and Tavern Business," 98. Ellis, "The Pompeian Bar," 401.

²⁰² Juv. 3.166.

²⁰³ Hor. Epist. 1.15.10, trans. H. R. Fairclough, 1926.

²⁰⁴ Liv. 45.22.2.2, trans. A. C. Schlesinger, 1951, www.perseus.tufts.edu.

²⁰⁵ McGinn, *Economy of Prostitution*, 16. See, for example, Apul. *Apol.* 98.20; Liv. 26.2.14-16; Livy *Per.* 50.15; Suet. *Calig.* 11.1.4.

the innkeeper (*copo*), in connection with political candidates, the serving of drinks and services offered.²⁰⁶

This diversity of contemporary terminology, combined with the nuanced and occasionally obscure meanings, reinforces the view that to undertake a meaningful study of such establishments it is methodologically more useful to adopt the blanket term 'bar' to encompass all of them — at least until such time as further analysis allows for clear demarcation by type.

Labelling the archaeology

Despite Kleberg's work on the classification of terms used in the literature, marrying them with the archaeological remains is not an easy task.²⁰⁷ One reason for this is that the ancient texts tend not to mention the physical characteristics of the bars — their spatial arrangement or fixtures fittings.²⁰⁸ Furthermore, although scholars have often turned to the work of Vitruvius to enlighten them on Roman architecture and allow them to label the various rooms of a house, there is no architectural manual when it comes to the retail outlets.²⁰⁹ Establishing which structures might be *taberna vinaria*, *popina* or *ganea* is therefore problematic, as each would have been set up in a shop with the characteristically wide entrance and include a counter and perhaps a hearth. The identification of establishments with accommodation proves equally difficult, particularly because upper rooms, rarely extant, may well have been used as sleeping quarters.²¹⁰

Despite the problems, some scholars have attempted to label the ruins using the contemporary terms. For example, both Kleberg and Packer identified various buildings as specific types of food and drink outlet,

²⁰⁶ Political slogans: CIL IV 00336, CIL IV 00537. The serving of drinks: CIL XIII 10018,157, to 'fill up' CIL XIII 10018,057a, CIL XIII 10018,157, or to mix, CIL XIII 10018,120a. Services/goods provided: CIL IV 1679, CIL IV 03948.

²⁰⁷ For the issues associated with the labelling of archaeological spaces, see P. M. Allison, "How do we identify the use of space in Roman houses?," in *Functional and Spatial Analysis of Wall Painting: Proceedings of the Fifth International Congress on Ancient Wall Painting, Amsterdam, September 1992*, ed. E. M. Moormann (Leiden: Peeters, 1993), 1–8; P. M. Allison, "The Household in Historical Archaeology," *Australasian Historical Archaeology* 16 (1998): 16–17; Allison, "Using the Material and the Written Sources," 181–208; P. M. Allison "Domestic spaces and activities," in Dobbins and Foss, *World of Pompeii*, 269–71; Berry, "Household artefacts," 183–85; Holleran, *Shopping in Ancient Rome*, 102–103; Holleran, "Finding commerce," 147–51; E. W. Leach, "Oecus on Ibycus: investigating the vocabulary of the Roman house," in Bon and Jones, *Sequence and Space*, 50–72.

²⁰⁸ Two exceptions are Mart. 5.70 who mentions *popinis* stools and *Dig.* 9.2.52, which talks of a *lapidem* (counter) in a shop.

²⁰⁹ Ellis, "The Pompeian Bar," 10.

²¹⁰ For the location of *cubicula* within domestic properties, see L. H. Nissinen, "Cubicula diurna, nocturna — revisiting Roman cubicula and sleeping arrangements," *Arctos: Acta Philologica Fennica* 43 (2009): 85–107.

although their reasons are not always clear. At Pompeii, Kleberg identified 17 hospitia and three stabula.²¹¹
Packer aimed to supplement Kleberg's 'general descriptions' of each type of business by providing a detailed picture of their character and categorising the archaeological remains into stabula, hospitia and popinae/
tabernae.²¹² But, here too, there is a difference of opinion. Packer identified the establishment at VII.12.34-35, as a 'typical' stabulum but Kleberg lists it as a hospitium. Packer's identification seems more plausible as he argues that the main court would have housed wagons, he also notes that Mau saw a watering trough, now gone.²¹³

At Ostia, Hermansen based his identification of the ruins on the size of the establishment, arguing 'it is the space that determines whether a *taberna* could be a wine tavern or a *popina*'. He claimed that large structures or those with extra rooms attached to them were probably *popina* because there was adequate room for tables and chairs. Based on this methodology he identified the '*thermopolium*' in Via di Diana and the bar of Alexander Helix (IV.7.4) as *popinae*. Of the five establishments Hermansen offers as examples of *tabernae vinariae*, one is larger than five of the bars that he identified as a *popina*. The reason he identifies II.9.2 (2nd shop from the left) as a *taberna vinaria* and not a *popina* is not clear and rather calls his reasoning into question. Although there is some merit to this methodology in identifying specific types of bars according to space, it is too simplistic to be robust, although he does concede that the distinction between *tabernae vinariae* and *popinae* is somewhat ill-defined.²¹⁵

Conclusion

The use of modern terms such as tavern, inn and bar to describe the food and drink outlets is problematic, as they do not capture the nuances of the ancient establishments. Instead it introduces an element of confusion. This lack of specificity perhaps reflects the problems inherent in translating from Latin — the English language simply lacks equivalent expressions, leaving us with an inadequate generalization. The terms tavern and inn are also anachronistic, which brings with them misplaced preconceptions. The definitions of the ancient terms for the food and drink outlets, as illustrated by Kleberg, although invaluable, are difficult

²¹¹ Kleberg, *Hôtels*, *Restaurants et Cabarets*, 33–35; see also 39–43 for the identification of *popinae* and *tabernae*.

²¹² Ibid., 5. Although Kleberg provided separate entries for *popina* and *taberna*, when he applied these labels to the archaeological remains he grouped them together, Packer follows suit. Kleberg, *Hôtels*, *Restaurants et Cabarets*, 39–43.

²¹³ Packer, "Inns at Pompeii," 9-12.

²¹⁴ Hermansen, Ostia, 192-95.

²¹⁵ Hermansen, Ostia, 195.

to marry up with the archaeological evidence. Although scholars have attempted this, the reasons for the conclusions they draw are often unclear or their methodologies are too simplistic. Overall, this illustrates the difficulties of linking physical remains to the literary sources. Furthermore, we cannot be sure that when we use the ancient terms, we fully understand what they would have meant to the contemporary Roman people. For this reason, the ancient terms cannot be used with any degree of certainty to describe the establishments. Instead, it would seem methodologically sounder to rely on a term, such as 'bar', that can convey a general meaning consistent with the broad function of the establishments of the ancient sites.



Fig. 3.1 Two of the bars vying for custom opposite the theatre in Pompeii. Left, I.2.11, right I.2.8.

3.2 Identification

The ruins of Pompeii, Herculaneum and Ostia are littered with establishments that have been identified as bars (Fig. 3.1). However, Wallace-Hadrill argues that, in the case of Pompeii at least, the number of establishments labelled as bars is absurdly high for such a small city. He believes that a significant number of these are different types of shop that happened to use a similar counter arrangement. This raises the question as to what characterises a food and drink establishment as opposed to any other type of shop.

Typologies for the food and drink businesses have been drawn up by various scholars, and these tend to focus on the retail sales counter, as Mac Mahon notes. The stables of the stables

'in many cases the purpose of a building or room is unknown, and it is frequently through the existence of a *taberna* counter that a building gains its identity. As such, the selling counter has become an important diagnostic key for the identification of the function of the surrounding space.'²¹⁸

However, in line with Wallace-Hadrill, Mac Mahon makes it clear that the presence of a counter does not necessarily indicate a food and drink business and argues that some structures that feature a counter may

²¹⁶ Wallace-Hadrill, "Public honour," 46.

²¹⁷ For shop typologies at Ostia, see Girri, *La Taberna*, 3, 6–7; Meiggs, *Roman Ostia*, 242–43; Packer, *Insulae of Imperial Ostia*, 18. For Pompeii, see V. Gassner, *Die Kaufläden in Pompeii*, (Vienna: VWGÖ, 1986), 45–49; R. M. Gulino, "Implications of the Spatial Arrangement of Tabernae at Pompeii: Region One" (PhD diss., University of Minnesota, 1987), 130–34; Ellis, *Roman Retail Revolution*, 58–62; For a survey of the established typologies for Roman bars and shops, see Ellis, "The Pompeian Bar," 88–91. Herculaneum and Pompeii, Monteix, *Les Lieux de Métier*, 113–27.

²¹⁸ Mac Mahon, "The Taberna Counters," 70.

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Fig. 3.2 Relief showing a bar scene. From Tomb 90, Isola Sacra, Ostia, 270-80 CE (image: AKG Images).

have been shops selling other foodstuffs such as meat or fish.²¹⁹ In Ellis's 2005 work, he identified 158 bars at Pompeii based on the presence of a masonry counter.²²⁰ However, he asserts that those establishments that also included a cooking facility (128 examples) would "differentiate the retail sale of cooked and prepared food and drink from other types of food shops.²²¹ In which case, those establishments he identifies as bars, but that do not have evidence of a cooking facility, could perhaps fall into the category of shops selling other goods. Overall, a typology based on a counter in combination with a hearth seems far more robust for the identification of a bar. As the counters at Herculaneum are similar in design to those at Pompeii, Ellis's typology acts as a good guide for both sites.

At Ostia, the counter design is different from the other two sites, so a separate set of typological criteria is required. For Hermansen, the surest indicator of an Ostian bar is a counter with a barrel-vaulted basin, a sentiment echoed by Bakker.²²² Hermansen says that this type of counter is specific to Ostia and is characteristic of the bar trade, an assertion based on the tomb relief from the Isola Sacra, which clearly shows a barrel-vaulted basin built into the base of a bar counter (Fig. 3.2), and this seems like a fair conclusion.²²³

As well as the specific elements that help to denote a bar, an additional defining criterion is the architectural form in which they were set up. The food and drink outlets were one of multiple types of *tabernae* (shop) all of which have common characteristics. They have wide entrances to allow for direct communication with the

²¹⁹ Ibid., 75.

²²⁰ The number of bars has since risen to 163, see Ellis, Roman Retail Revolution, 18.

²²¹ Ellis, "The Pompeian Bar," 88-89.

²²² Hermansen, Ostia, 187; J. T. Bakker, Living and Working with the Gods: Studies of Evidence for Private Religion and Its Material Environment in the City of Ostia (100–500 AD), (Amsterdam: J. C. Gieben, 1994), 77.

²²³ Hermansen, "Roman Inns," 175.

street and this entrance is marked by a grooved threshold in which wooden shutters were positioned when the shop was closed.²²⁴ As this set-up is indicative of a commercial business, when it is combined with the characteristic bar fixtures and fittings, it is a strong indicator of a hospitality business.

The secure identification of a bar is clearly a crucial step in being able to exploit the available evidence to gain a good understanding about Roman social and cultural activity. For that reason, while bearing in mind the previous typologies set up by scholars, this chapter will examine the literature, iconographical record and the material remains to identify the furniture and equipment needed to set up a food and drink business as well as attempt to identify the type of people who frequented the bars.²²⁵

The counter

Texts: Given that the counter plays such a central role in the food and drink outlets, the literary texts are surprisingly quiet on either their existence or form. ²²⁶ One passage that may allude to a counter comes from the *Digest*.

One night a Shopkeeper had placed a lantern above his display counter [*lapidem*] which adjoined the footpath, but some passerby took it down and carried it off.²²⁷

But, as Ellis points out, the Latin word *lapidem* — translated here as 'display counter' — might also denote a bench positioned outside the shop for the benefit of customers.²²⁸

Images: The Isola Sacra relief (Fig. 3.2) goes some way to help identify a bar in the archaeological record at Ostia.²²⁹ Variously dated to the Hadrianic period or the middle of the third century CE, the relief is reasonably contemporary to the surviving counters.²³⁰ Although this is only one example, it does seem to show a bar room scene and is compelling evidence that a counter with this particular design was used by this trade at Ostia.²³¹

²²⁴ Ellis, *Roman Retail Revolution*, 38–40, 200–01; Holleran, *Shopping in Ancient Rome*, 100; Holleran, "Finding commerce," 144.

²²⁵ For the problems associated with identification based on finds assemblages, see Ellis, *Roman Retail Revolution*, 76-83.

²²⁶ Mac Mahon, "The Taberna Counters," 70; Ellis, "The Pompeian Bar," 15.

²²⁷ *Dig.* 9.2.52.1, trans. A. Watson, 1998. For the theft of a wine vessel from a shop at Pompeii, see *CIL* IV 00064.

²²⁸ Ellis, "The Pompeian Bar," 157, note 1.

²²⁹ Hermansen, *Ostia*, 187–88; Kampen, *Image and Status*, 41–51; G. Calza, "Isola Sacra. La necropoli del Portus Romae," in *NSc* 1931, 531–32, Fig. 15; G. Calza, *La Necropoli Del Porto Di Roma Nell'Isola Sacra* (Roma: La Libreria dello stato, 1940), 203–05, 351, Fig. 107.

²³⁰ Hermansen, Ostia, 188. Thylander suggests a Hadrianic date whereas Calza opts for the middle of the third century, based on the hairstyle of the barmaid, which resembles that of Gallienus' empress Salonina. Calza, La Necropoli, note 24; H. Thylander, Êtude Sur Lépigraphie Latine: Date Des Inscriptions, Noms et Dénomination Latine, Noms et Origine Des Personnes (Lund: C. W. K. Gleerup, 1952), 19.

²³¹ See also Kampen, *Image and Status*, 57 along with P. Ozcáriz Gil, "Identificación de dos locales de distribución de vino y aceite en relieves de Isola Sacra (IPO A 169A=ISLIS 305; IPO A 169B=ISLIS 306)," *Espacio, Tiempo y Forma. Serie II. Historia Antigua* 21 (2008): 235–54.

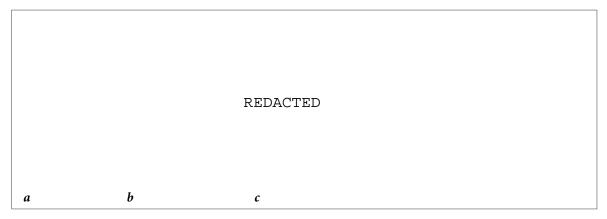


Fig. 3.3 Wine vending scenes. **a**, From Til-Châtel, second to third century CE (image: Musée archéologique de Dijon, ©F. Perrodin). **b**, From Augsburg, 171–230 CE (image: Epigraphic Database Heidelberg). **c**, From Dijon. (n.d.), (image: after Esperandieu 3469).

Although there are images from Pompeii that show service counters, none of them is in the context of a bar. Looking farther afield, there are three examples from outside of Italy that depict wine retailing from particularly elaborately designed counters (Fig. 3.3). A further relief, from Trier, illustrates a different counter design, this time incorporating an upper shelf (Fig. 3.4). Although the design of these counters seems to be unique to their own geographical area, they are a valuable supplement to our understanding of these businesses as they help to build up a picture of possible spatial arrangements and the paraphernalia associated with REDACTED this trade.

Archaeology: The remains of service counters can be seen across the three sites, where they come in various shapes and sizes, the physical remains of which will be explored in greater detail in chapter 4.

Fig. 3.4 Relief of bar scene from Trier, Roman, imperial period. Note goods placed in front of the counter (image: akg-images).

²³² See Mac Mahon, "The Taberna Counters," 74; A. Ciarallo and E. De Carolis, eds., *Pompeii: Life in a Roman Town* (Milano: Electa, 1999), 134–35; J. R. Clarke, *Art in the Lives of Ordinary Romans: Visual Representation and Non-Elite Viewers in Italy, 100 B.C.-A.D. 315* (Berkeley, CA: University of California Press, 2006), 259–261. For the shoe shop (found between the façades at IX.7.6 and IX.7.7, Pompeii), see Kampen, *Image and Status*, 63, 103ff; Clarke, *Art in the Lives*, 109. Although this painting is much faded today, it can clearly be seen in *NSc* 1912, 179, Fig. 3.

²³³ For **Til-Châtel**, see É. Espérandieu, *Recueil général des Bas-Reliefs: Statues et Bustes de la Germanie romaine* (Paris: G. van Oest, 1931), 442–43; A. M. Young, "The Iconography of Vending Scenes on Gallo-Roman Funerary Reliefs" (PhD thesis, McMaster University, 1998), 138–139. For the **Augsburg** relief, see L. Bakker, "Weinverkauf und Kontorszene auf dem Grabmal des Pompeianius Silvinus aus Augsburg," in *Die Römer in Schwaben* (Munich: Lipp, 1985), 129–130; Young, "The Iconography of Vending Scenes," 139–140. For **Dijon** relief, Espérandieu, *Recueil général des Bas-Reliefs*, 387–388; Young, "The Iconography of Vending Scenes," 140–41.

²³⁴ Young, "The Iconography of Vending," 147–48.

Cooking facilities

Texts: As well as various foodstuffs, the texts attest to the practice of warmed water being added to the wine. This suggests that even the most basic bar would need to be equipped with a hearth.²³⁵

Image: Wall paintings from Pompeii and Ostia depict comestibles that may have been sold in the bars (Fig. 3.5, 5.51).²³⁶ These include fruit, vegetables, meats and dairy products. Some of these foodstuffs would have needed to be cooked before consumption and could have been used to create various dishes. Looking to depictions of food items in bars outside of Italy, we see various cuts of meat, including a ham (Fig. 3.3c) and fowl and possibly pheasants (Fig. 3.4), all of which would make a tasty cooked meal.²³⁷

Archaeology: Cooking facilities can be divided broadly into two categories.²³⁸ The first is characteristic of the bar trade, in which the hearth is built into the end of a counter arm. The second features the hearth as an independent unit that tends to be larger than the built-in version and is also seen in domestic properties. The location of this type of



Fig. 3.5 Fresco on south wall of the rear room of VI.10.1 Pompeii, showing furniture provided for customers and goods hanging from the racks.



Fig. 3.6 The kitchen area with a hearth in the bar at II.4.7 Pompeii.

²³⁵ For food, *CIL* IV 5380; Apul. *Met.* 1.5.10; App. Virg. *Copa*; Cass. Dio 60.6, 61.62; Suet. *Ner.* 16. For the sale of wine, see, Apul, *Met.* 1.7.23; Cic. *Phil.* 3.20; Varro, *DVPR* 72.2. For the addition of water, see Plaut. *Curc.* 2.3; Mart. 1.11; Apul. *Met.* II 15–16; *Dig.* 33.7.18.3; *CIL* XIV 2112; Hermansen, *Ostia*, 190. Cold water was also added to wine as a graffito at VI.10.1 illustrates, 'Give a drop of cold' is written in a speech bubble, *CIL* IV 1291, Fig. 7.14.

²³⁶ Fig. 3.5, see A. Mau and F. W. Kelsey, *Pompeii: Its Life and Art* (New York: The Macmillan Company, 1907), 403; M. Beard, *Pompeii: The Life of a Roman Town* (London: Profile, 2008), 231. Fig. 5.51, see Hermansen, *Ostia*, 132.

²³⁷ Espérandieu, *Recueil général des Bas-Reliefs*, 387–88; Young, "The Iconography of Vending Scenes," 140–41

²³⁸ For commercial kitchens, see R. I. Curtis, "Professional cooking, kitchens, and service work," in Erdkamp, *Cultural History of Food*, 121–32. For domestic and commercial kitchens, see Foss, "Kitchens and dining rooms," in particular, for a typology of kitchen installations, see 78–84.

hearth in the main bar room or a room adjoining it helps to determine whether it was used for commercial purposes (Fig. 3.6).²³⁹ The various designs and locations are discussed in Chapter 5.

Furniture

Texts: When it comes to the types of furniture that might be found in the bars, the literary sources are not particularly forthcoming. However, Martial mentions a certain Syriscus, who was to be found in the *popina* seated on 'bistro stools' (instead of reclining as was the custom for the elite), and Juvenal describes a bar at Ostia equipped with couches (*lectus*) and tables (*mensa*).²⁴⁰ Despite the elite's scorn for the bars, it seems that some did include *triclinia* in which the more 'refined' customer might relax.²⁴¹

Image: A series of wall frescoes offers greater detail of the furniture that might have been provided for customer comfort. For example, frescoes from the bars at VI.14.35-36 and VI.10.1 in Pompeii show scenes of customers sitting on stools and benches (Fig. 3.5, 7.28a, b).²⁴² Two of these scenes also show customers seated around small, low, circular tables, supported by three curved legs connected by stretchers (Fig. 3.5, 7.28b).²⁴³ Another image shows a different type of table, this time rectangular in form with four slim legs connected by stretchers (Fig. 3.7). Unlike the round tables, this design allows



Fig. 3.7 Fresco on west wall of the rear room of VI.10.1 Pompeii, showing furniture provided for customers.

²³⁹ For finds associated with hearths, see Packer, "Inns at Pompeii," 48; *NSc* 1912, 111–17; Jashemski, "The Caupona of Euxinus," 37.

²⁴⁰ Mart. 5.70.3. For a discussion, see M. B. Roller, *Dining Posture in Ancient Rome: Bodies, Values, and Status* (Princeton, NJ: Princeton University Press, 2006), 92–4. For the practice of reclining to dine, see K. Dunbabin, *The Roman Banquet: Images of Conviviality* (Cambridge: CUP, 2003), 11–13; Juv. 8.170–180.

²⁴¹ Couches are also mentioned in App. Virg. Copa and CIL IV 807.

²⁴² See Clarke, *Art in the Lives*, 134–36, 161-168; *PPM* IV 1005–1028; *PPM* V 366–71. For a discussion of the paintings at VI.10.1, see W. Helbig and O. P. Donner-von Richter, *Wandgemälde Der Vom Vesuv Verschütteten Städte Campaniens* (Leipzig: Breitkopf und Härtel, 1868), 369-370. For stools, see A. Croom, *Roman Furniture* (Stroud: The History Press, 2007), 106.

²⁴³ The height of examples of the small round tables (depicted in the Pompeian frescos) found at Herculaneum range from 59cm to 68cm heigh, with a diameter of 42–61cm. These tables seem more suitable for placing items on rather than dining at. See S. T. A. M. Mols, *Wooden Furniture in Herculaneum: Form*, *Technique and Function* (Amsterdam: Brill Academic, 1999), 49. Croom, *Roman Furniture*, 68–69. This type of table is also shown in banqueting scenes, for example, on the west and east walls of the *triclinium* of IX.12.6, Pompeii. Banqueting scene showing a young man and *hetaera* from Herculaneum, see Dunbabin, *Roman Banquet*, plate III.

patrons to sit with their knees under the table, which is more akin to modern bar furniture. These images certainly chime with Martial's stool-ridden *popina* and illustrate the general practice of sitting rather than reclining in these establishments.²⁴⁴ It is to the representations in reliefs that we turn for clarification for the Ostian furniture. In one example (Fig. 3.2), two customers sit at a rectangular table similar to the one pictured in the back room of VI.10.1 (Fig. 3.7).²⁴⁵ However, the bench they sit on is more elaborate than the one seen in the Pompeian fresco, as it has a carved end and a high backrest (a similar design is seen in Fig. 3.8). Unlike in the Pompeian examples, these pieces of furniture seem to have a more solid and chunkier construction. Looking outside of Italy, similar types of benches and tables are attested (Figs 3.4, 3.9).

The images from Osita, Augsburg and Trier — all of a much later date than the Pompeian frescos — suggest that over time, fashions in furniture changed. A move away from the small round

tables to larger examples where customers could

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Fig. 3.8 Tavern scene with seated guests, from Ostia. Museo Ostiense (n.d.), (image: Lessing Images).

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Fig. 3.9 Bar scene showing the tallying of accounts, from Augsburg, 171–230 CE (image: Epigraphic Database Heidelberg).

sit with their knees underneath and backed seating, rather than stools, suggests a focus on customer needs.

Archaeology: The evidence gathered so far for the types of furniture found in the bars is nicely corroborated in the archaeological remains. For example, the bar at II.4.7 had a separate dining area housing a *triclinium* couch opposite horseshoe-shaped benches with masonry tables (Fig. 3.10).²⁴⁶ It is however, perhaps surprising

²⁴⁴ Mart. 5.70.3.

²⁴⁵ R. B. Ulrich, Roman Woodworking (New Haven: Yale University Press, 2007), 223–27.

²⁴⁶ C. C. Parslow, "Documents illustrating the excavations of the Praedia of Julia Felix in Pompeii," in *RivStPomp* 2 (1988), 37–48. Couches can also be found at I.8.8, I.11.16 and II.8.3 Pompeii. Similar horseshoe-

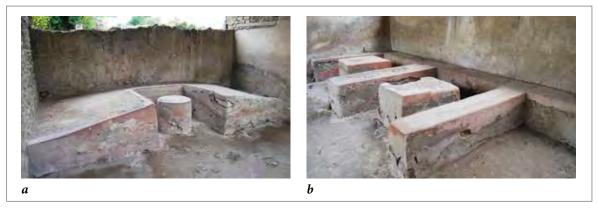


Fig. 3.10 The dining area at II.4.7, Pompeii. a, The lectus and b, the benches.

to have the two forms of seating together in one room in light of the elite's negative reaction to those who do not recline to eat.²⁴⁷ A slightly different squat, style of bench seating can be found at other bars in Pompeii and Herculaneum (Fig. 3.11).²⁴⁸ The benches are not dissimilar from two found in the *triclinium* of I.6.2 Pompeii, which, owing to their height, are thought to have been for children to use.²⁴⁹ If so, those found in the bars perhaps also served the same purpose — providing a separate seating area for youngsters. Some bars

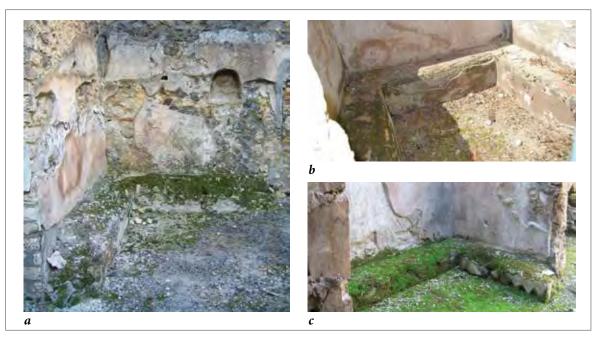


Fig. 3.11 Benches in bars at a, I.11.1 Pompeii, b, IV.17 Herculaneum and c, 1.8.15 Pompeii.

shaped benches with tables are found at II.8.5 Pompeii.

²⁴⁷ A similar arrangement can be seen in a relief showing a banqueting scene on the Amiternum relief, mid-first CE, see Dunbabin, *Roman Banquet*, 80, Fig. 40.

²⁴⁸ I.8.15 (23cm high) and I.11.1 (37cm high) at Pompeii and IV.17-18 (40cm heigh) at Herculaneum.

²⁴⁹ The benches attached to the masonry couches of the *triclinium* at I.6.2 Pompeii are thought to be for "children or other inferior persons," K. Dunbabin, "Triclinium and stibadium," in *Dining in a Classical Context*, ed. W. J. Slater (Ann Arbor: University of Michigan Press, 1991), 123. Similarly, at IX.5.11 Pompeii, according to Mau, a children's seat is preserved, Mau and Kelsey, *Pompeii*, 264.

also offered additional seating outside, providing customers with the option to dine alfresco (Fig. 3.12).²⁵⁰ As well as the masonry furniture, wooden round tables, similar to those pictured in the frescoes (Fig. 3.5, 7.28b), have been found at Herculaneum.²⁵¹



Fig. 3.12 The bench outside the bar at VI.1.2 Pompeii.

Equipment

Texts: An entry from the *Digest* is

particularly instructive in terms of the sort of finds that might help to identify a shop that was used as a bar. In it are listed the *instrumentum* — the equipment or tools associated with a food and drink outlet.

...casks, vessels, mugs, cups, ladles which usually circulate at table; likewise, bronze urns, flagons, beakers and the like.²⁵²

Wine might be served to customers from a flagon, such as that carried around by the barmaid Cyane, mentioned by Juvenal, and poured into crystal chalices, as in the rather up-market-sounding establishment portrayed in the poem *Copa*.²⁵³

Image: The iconography can also provide evidence of a bar's *instrumentum*, adding detail about form and size. For example, the frescos at VI.10.1 and VI.14.35–36 both show similar types of tableware. The drinking vessels, for example, are tall and taper at the bottom, a style also evident in the Ostian examples (Figs 3.2, 3.7, 3.8, 3.17b,). The serving staff are also often shown holding jugs — similar to those depicted on a colourful sign from Herculaneum — that presumably contained wine or water (Figs 3.5, 3.19, 7.13, 7.14). These images also identify the types of storage that bars would have used. The fresco at VI.10.1, for example, demonstrates how — in these often small establishments — goods were suspended from racks to maximise space (Fig. 3.5). A similar arrangement seems to have been used in the bar at I.2.5 Ostia, where a narrow marble slab with

²⁵⁰ For example, at I.2.5 Ostia, II.1.1, II.4.7, VI.1.5, VI.1.2 Pompeii. Of the 100 street-side benches identified at Pompeii 12 were catalogued as outside a bar/tavern, see J. Hartnett, "Si quis hic sederit: Streetside Benches and Urban Society in Pompeii," *American Journal of Archaeology* 112, no. 1 (January 2008): 91–119. Similar benches are also found outside the houses at II.2.4, I.12.1, VI.16.15 Pompeii and III.3, IV.4, V.1 Herculaneum.

²⁵¹ See note 243.

²⁵² Dig. 33.7.13.pr.

²⁵³ Juv. 8.158; App. Virg. Copa.



Fig. 3.13 Slab of marble with holes for hooks. I.2.5, Ostia.

three bronze hooks was found (Fig. 3.13).²⁵⁴
The reliefs from outside of Italy show a similar arrangement with hanging crockery and foodstuffs (Figs 3.3a, b, c, 3.4) as well as shelving used to store barrels or amphorae (Fig. 3.9).

Archaeology: The finds from the bar at IX.11.2 Pompeii are remarkably similar to the list of *instrumentum* in the *Digest* (p.65). They included terracotta pitchers, an Arretine cup, glass cups and several bronze vessels of various shapes and sizes.²⁵⁵ In the bar at I.6.5 Pompeii, a number of items associated with cooking were found and similar finds of bronze casseroles and jugs were unearthed in the bars of Herculaneum.²⁵⁶ As might be expected, finds of amphorae are not uncommon in the bars.²⁵⁷ A particularly nice amphorae find comes from the bar at I.11.11 Pompeii, where three examples were

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Fig. 3.14 Amphora addressed to 'the innkeeper Euxinus, at Pompeii near the Amphitheatre'. From I.11.11 Pompeii (image: Pompeii in Pictures/Stanley A. Jashemski).



Fig. 3.15 Amphorae rack at V.6 Herculaneum.

²⁵⁴ Hermansen, *Ostia*, 131–32; G. Calza and G. Becatti, *Ostia*, *Itineraries of the Museums*, *Galleries and Monuments in Italy* (Rome: Istituto poligrafico dello stato, Libreria dellostato, 1971), 26.

²⁵⁵ Packer, "Inns at Pompeii," 48; NSc, 1912, 113-20.

²⁵⁶ NSc 1912, 250–51, 256–57. Ellis, "The Pompeian Bar," 245. Many cooking vessels were also found I.10.13, see NSc 1934, 340–41. Herculaneum at II.67, IV.15–16 and V.6. For finds, see Monteix, Les Lieux de Métier, 377-378; 384-387; 389-390.

²⁵⁷ **Pompeii**: I.8.8, Ellis, "The Pompeian Bar," 258; V. Castiglione Morelli del Franco and R. Vitale, "L'insula 8 della Regio I: un campione d'indagine socio-economica," *RivStPomp* 3 (1989), 185–221. VII.2.32: Ellis, "The Pompeian Bar," 405–06; *GdS* 1868, 107–08. IX.11.2: Ellis, "The Pompeian Bar," 505. See also *NSc* 1911, 430–32, 455–56; 1912, 28–29, 111–20. **Herculaneum**: IV.15–16, de Kind, *Houses in Herculaneum*, 161. **Ostia**: I.3.1 room 15, see Bakker, accessed October 21, 2018, http://www.ostia-antica.org/regio1/3/3-1.htm.

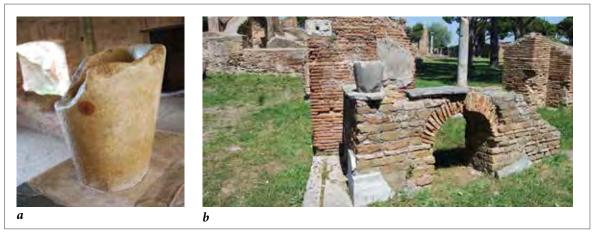


Fig. 3.16 Mortaria in bars at a, I.2.5 and b, I.12.10 at Ostia.

discovered bearing the proprietor's name and address (Fig. 3.14).²⁵⁸ As well as being stacked, evidence from Herculaneum reveals that amphorae could also be stored in specially constructed racks (Fig. 3.15).²⁵⁹ Further storage solutions would have been required for the various cooking pots and tableware as listed in the *Digest* (p.65), that were associated with the food and drink outlets. For example, there is evidence to suggest that shelving was often a feature of the bars.²⁶⁰ A find that for Hermansen helped with the identification of a bar, was the presence of *mortaria* — used to grind the pepper that was added to the spiced wine called *conditum* (Fig. 3.16).²⁶¹ However, like amphorae, *mortaria* are commonly found in various contexts, so such a find needs to be considered in combination with other evidence.

Identifying the staff and clientele

So far, we have looked at the different elements that can aid in the identification of a food and drink outlet, but what about the people who inhabited these now empty ruins? Who were the staff and customers of the bars, what did they look and sound like, what was their social status? Apart from numerous emperors or well known figures, whom the ancient authors often linked with the bars as a way to defame their characters, the

²⁵⁸ A. Cooley, *Pompeii: A Sourcebook* (London: Routledge, 2006), 162. Jashemski, *Gardens of Pompeii*, vol. 1, 172.

²⁵⁹ For a full description, see Mols, Wooden Furniture, 148.

²⁶⁰ Ellis, "The Pompeian Bar," 63; For example, at I.2.18, 1.13.13, IX.1.8, Ibid., Plate 6.c, 288, 484. At Herculaneum, IV.17, see A. Maiuri, *Herculaneum*. 4th revised edition. Guide-Books to the Museums and Monuments of Italy, no. 53. (Rome: Istituto poligrafico dello Stato, Libreria delloStato, 1956), 58; Monteix, *Les Lieux de Métier*, 123.

²⁶¹ Hermansen, "Roman Inns," 175. Displayed on the counter at I.2.5 and at I.12.10; IV.vii.2 (10th shop from the west), half a *mortarium* was found among the rubble that was piled up in the subscalare; I.xvi.1, the room to the north of the staircase in the southwest part of the building, three fragments of *mortaria* were discovered in the rubble of the bar; IV.ii.1, room 2. See Hermansen, *Ostia*, 177, 136–37, 162. *Mortaria* were also found in the bars at IV.17 Herculaneum and VI.16.12 Pompeii, Maiuri, *Ercolano: I Nuovi Scavi*, 437; *NSc* vol. 5, 1905, 9.

types of clientele portrayed as frequenting the bars tended to be the lower classes. Juvenal for example counts hit men, thieves, runaway slaves and executioners as the clientele of one Ostian bar. ²⁶² Columella, along with others, additionally sees the bars as haunts for lazy slaves. ²⁶³ More direct (and less biased) evidence for determining who frequented the bars might be found by exploring the graffiti left in or on the façades of the bars. However, although these customers often left their names, they provide little information about their status. ²⁶⁴ One example that does offer evidence is an exchange between two love rivals found at I.10.2 (see p.71), where Successus declares not only his love for the barmaid, but his occupation as a weaver. ²⁶⁵ As both men were presumably clientele of the *caupona*, this inscription gives us some idea of the class of customer that this particular establishment might have attracted. Although DeFelice notes that weavers suffered much of the same lack of status as inn and tavern workers, such customers were a far cry from those mentioned in Juvenal's satire. ²⁶⁶

Drawing on the various images available, we can get a snapshot of what the customers of the bars might have looked like (Fig. 3.17). For example, we see men, both clean shaven and with beards, dressed in short tunics, some with a cloak (*pallium*). In one painting, a character holds a spear in his left hand, which suggests that he is was a soldier (Fig. 7.14).²⁶⁷ In the images at VI.10.1 Pompeii and on the tombstone from Aesernia

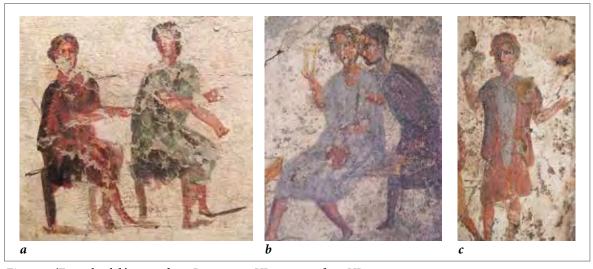


Fig. 3.17 'Everyday life' scenes from Pompeii. a, VI.14.35-36. b, c, VI.10.1.

²⁶² Juv. 8.171-6. See also Mark Antony: Cic. *Phil.* 2.69, 13.24. Caligula: SHA *Verus* 4.5-8. Claudius: Suet. *Claud.* 40. Nero: Tac. *Ann.* 13.25; Suet. *Ner.* 26.1; SHA *Verus* 4.5-8. Vitellius: SHA *Verus* 4.5-8; Suet. *Vit.* 13.3. Verus: SHA *Verus* 4.5-8. Commodus: SHA *Comm.* 2.6-8.

²⁶³ Columella, *Rust.* 1.8.2. See also Cic. *Phil.* 13.24; Hor. *Sat.* 2.7.39; Juv. 11.81; Plaut. *Trin.* 1013; Sen. *Constant.*, 13.4.3; Tac. *Ann.*, 13.25.

²⁶⁴ For example, Primigenius at IV.15-16 CIL IV 5094, Herculaneum; I.7.8 Pompeii, Gaius and Aulus, CIL IV 8162.

²⁶⁵ CIL IV 8258. See M. Della Corte, Case Ed Abitanti Di Pompei (Pompei-Scavi: Presso l'autore, 1954), 301, nos. 614-161. W. O. Moeller, Wool Trade of Ancient Pompeii (Leiden: Brill Academic, 1976), 39. 266 DeFelice, Roman Hospitality, 84.

²⁶⁷ Helbig and Donner-von Richter, Wandgemälde Der Vom Vesuv, 369-70.

(Figs 3.5, 3.7 (although much faded), 7.7), we also see men depicted in distinctive hooded cloaks (*cucullus*) of travellers.²⁶⁸ So as well as locals, many bars would have had a transient and constantly changing customer base. What is particularly interesting about the images is that the clothes are quite colourful. Dying cloth, however, could be expensive and it is generally thought that poorer people wore blacks, browns, greys and creams (rather than the vibrant colours in these paintings) as they were the natural colours of wool.²⁶⁹ Indeed, Calpurnius Siculus, a Roman poet who flourished in the first century CE, describes the clothes of the poorer classes as "dingy", and the Christian writer Tertullian (*c*.155/160–220) wrote that if God had wanted humans to wear coloured clothing, sheep would have been born with blue fleeces.²⁷⁰ This raises the question of whether the paintings reflect real life or are the product of artistic licence. If the clientele of the bars did wear such vibrant colours, we should perhaps imagine that some of the customers were of a higher class status than is usually assumed and portrayed in the literature.

Women

But to what extent might we find women in the bars?²⁷¹ According to McGinn, who has studied the economics of venal sex, 'generally speaking, inns, lodging houses, taverns, and restaurants of all kinds were associated with the practice of prostitution'.²⁷² This notion is highlighted in the laws of the *Digest* that imply that the only women who were to be found in the bars were those of easy virtue.²⁷³ Graffiti also link women with bars and sex, for example, at V.2.b-c Pompeii women's names are listed with prices and on the facade of the bar at I.12.3, Pompeii, we hear of one writer who claims to have had a sexual encounter with the '*coponam*' (barmaid).²⁷⁴ However, some caution is required with this type of evidence, as McGinn notes, 'we should be alert to the possible status of these claims as boasts, wishes, or insults'.²⁷⁵

As well as references to prostitutes, there are a number of texts that place women in the bars as owners/ managers and serving staff.²⁷⁶ Interestingly, the female proprietors are often described as being in their twilight

²⁶⁸ PPM IV, 1017, Fig. 21. For the cucullus, see Mart. 11.98.10; Juv. 3.170; A. Croom, Roman Clothing and Fashion (Stroud: Amberley, 2010), 59.

²⁶⁹ Croom, Roman Clothing, 25.

²⁷⁰ Calp. Ecl. 7.29; Tert. I.8.2; Croom, Roman Clothing, 24.

²⁷¹ For women working in bars, see S. Treggiari, "Lower Class Women in the Roman Economy," *Florilegum* 1 (1979): 73–5.

²⁷² McGinn, The Economy of Prostitution, 15.

²⁷³ Dig. 23.2.43.pr; Dig. 3.2.4.2, Dig. 23.2.43.9.

²⁷⁴ At V.2.b-c, names with prices, *CIL* IV 4295, see DeFelice, "Inns and Taverns," 481. At I.12.3 *CIL* IV 8442. See also *CIL* IV 4260, 8454.

²⁷⁵ McGinn, Economy of Prostitution, 17. Also, Beard, Pompeii, 232.

²⁷⁶ Dig. 23.2.43.9; Cod. 9.9.28.



Fig. 3.18 'Asellinas' and 'Zmyrina' are still legible in the grafitti outside the bar at IX.11.2 Pompeii.

years.²⁷⁷ We also hear of a barmaid called Cyane, who works in an all night *poninae*, and the seemingly popular barmaid Iris, who is the subject of two rivals for her love.²⁷⁸ Refreshingly, there is no hint that Iris is anything other than a barmaid. This is echoed on a tombstone from the second or third century CE set up by a grieving husband, who praises his virtuous wife, Amemone, also a barmaid.²⁷⁹ Of course, a husband is hardly likely to portray his wife in a negative light as it would reflect badly on him, nevertheless, Amemone seems not to have lived up to the usual reputation of a barmaid.

There is also some electoral graffiti written outside a bar at Pompeii that names four women — Asellina, Maria, Aegle and Zmyrina (Fig. 3.18). According to Della Corte, Asellina was the owner of the bar and the other three women were barmaids.²⁸⁰ The names are exotic (Aegle



Fig. 3.19 Painting of a barmaid at VI.14.35-36 Pompeii.

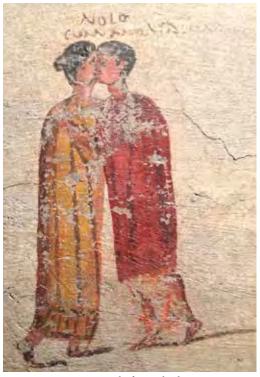


Fig. 3.20 Kissing couple from the bar at VI.14.35-36 Pompeii.

²⁷⁷ Apul. Met. 1.7.23; Plaut. Pseud. 658; Apul. Met. 1.21.

²⁷⁸ Juv. 8.163. Graffiti at I.10.2, CIL IV 8258.

²⁷⁹ CIL XIV 3709 (ILS 7477. L). See also CIL VI 9824 for the epitaph of a *popa*, Critonia Philema. For a discussion of this inscription, see L. M. Holman, "Roman Freedwomen: Their Occupations and Identity" (MA diss., University of North Carolina, 2015), 17-18.

²⁸⁰ CIL IV 7862, 7863, 7864, 7866, 7873. Della Corte, Case Ed Abitanti, 307-309.

and Zmyrina are of Greek origin) and remind us of the multicultural nature of the labour force of the Roman world and that many different languages and accents would have been heard around these cities.²⁸¹ However, such evidence should be viewed with some caution as there is no specific information that points to these women working in the bar.²⁸² Pictorial evidence also attests to women in the role of servers (Fig. 3.2, 3.8, 3.19).

Clearly women ran or served in the bars, evidence for them as customers is, however, somewhat elusive.

One painting, from the bar at VI.14.35-36 in Pompeii (Fig. 3.20), shows a woman who is not depicted as a server — but is she a customer? Clarke argues that the woman's pose suggests that she is sexually available, but this reading is far from conclusive and instead seems shaped by the biased literary texts that assume the link between bars and prostitution.²⁸³ Additionally, it has been mooted that in the relief from Ostia (Fig. 3.2), one of the seated figures is actually a female customer. This is based mainly on the hairstyle, which according to Kampen is similar in style to that seen on Ulpia Severina between 270 and 275 ce.²⁸⁴ This is a very interesting line of enquiry that deserves further investigation. If this is a woman, it may well be the only depiction of a female bar customer that we have. As well as these possible sightings of women, a graffito encountered at VII.3.27-28 reads, 'Eupilia was here with handsome men', which may perhaps suggest a female customer documenting a visit to a bar.²⁸⁵ However, the name 'Eupilia' is mentioned in two other locations, both of which suggest she is a sex worker.²⁸⁶ We can only speculate as to whether or not it is the same person.

Despite the lack of evidence for women as customers in the bars, it seems somewhat unrealistic to conclude that women — not to mention children for whom evidence is also lacking — did not visit the bars. Particularly so, as cooking facilities in poorer homes were limited and a bar might provide a more substantial meal.²⁸⁷ With many bars having multiple rooms, a possible solution could have been provided by setting aside a space for women in the same way that Edwardian pubs had snugs, which would ensure the female clientele had a place to take refreshment in privacy.²⁸⁸

²⁸¹ For the barmaid on the Ostia relief (Fig. 3.2), who may be from Egypt or Syria, see Kampen, *Image and Status*, 49–50.

²⁸² L. Savunen, "Women and elections in Pompeii," in *Women in Antiquity*, eds. R. Hawley and B. Levick, (Eastbourne: Routledge, 2003), 200.

²⁸³ Clarke, Art in the Lives, 162–63, plate 8; J. R. Clarke, Looking at Lovemaking: Constructions of Sexuality in Roman Art, 100 B.C.-A.D. 250 (Berkeley, CA: University of California Press, 1998), 121–22. See also Beard, Pompeii, 230. P. Roberts, Life and Death in Pompeii and Herculaneum (London: British Museum Press, 2013), 63

²⁸⁴ Kampen, Image and Status, 48.

²⁸⁵ CIL IV 2310b, trans. DeFelice, Roman Hospitality, 116.

²⁸⁶ See *CIL* IV 5048, Eupilia sucks for five asses, *CIL* IV 10004, Eupilia (is) slack (with) a big clitoris, see M. Johnson and T. Ryan, *Sexuality in Greek and Roman Literature and Society: A Sourcebook* (London: Routledge, 2005), 102–03.

²⁸⁷ Ellis, Roman Retail Revolution, 245; Foss, "Kitchens and dining rooms," 109.

²⁸⁸ D. W. Gutzke, "Gender, Class, and Public Drinking in Britain During the First World War," *Historie Social/Social History* 27, no. 54 (1994): 371.

Conclusion

At Pompeii and Herculaneum, the existence of a service counter along with a hearth is a strong basis on which to identify a food and drink outlet. The heating of water to add to wine was a fundamental necessity for a bar and, as such, a hearth was a key component of its equipment. Where hearths are either incorporated into the counter design or built as a separate unit and located within the bar room, the identification is more sure. At Ostia, the counter with a barrel-vaulted water basin provides strong evidence of a food and drink business. This identification is greatly helped by the relief from the Isola Sacra (Fig. 3.2), which also offers valuable evidence for the use of the stepped shelves that are often incorporated into the counter design or built as separate units and are found at all three sites. These features along with the characteristic wide shop frontage provide a good guideline as to how to recognise this particular trade in the archaeological record. As well as the core elements that make up these typologies, the supplementary evidence, such as finds, provides greater security to the identification of a bar and offers a rich source of evidence for understanding services and function. Reviewing the iconographic evidence also suggests that the type of counter or selling platform used by different trades was tailored to their own particular needs, and, as such, takes on a different form. Furthermore, what these two typologies highlight is that there is not one that fits all scenarios and that design differences occur to fixtures and fittings geographically and temporally. As we will see in the following chapters, such changes affected operational practices, providing a different staff and customer experience depending on which site the bar was located.

The identification of the staff and clientele of the bars proves slightly more difficult owing to the bias of the elite writers whose voices predominate. However, when assessing a wide range of evidence, it suggests that the bars attracted a cross-section of customers from slaves, trades people, soldiers and perhaps some more refined guests — despite the elite's protestations to the contrary. When it comes to women, we can confidently place owner/managers, servers and, seemingly, the odd prostitute in the Roman bars. The idea that 'respectable' women did not partake of the food and sociability offered by the bars seems unrealistic, a notion promoted by the Roman laws and later promulgated by modern scholars who have taken this evidence at face value.²⁸⁹

²⁸⁹ For example, L. Casson, *Travel in the Ancient World* (Baltimore, MD: Johns Hopkins University Press, 1994), 211; Balsdon, *Life and Leisure*, 153.



Fig. 4.1 Restoration work in progress at VI.16.40 Pompeii in November 2015, preserving the design decisions made 2,000 years ago.

4. THE CONSTRUCTION OF THE RETAIL SPACE

DRUGGER. This, an't please your worship;
I am a young beginner, and am building
Of a new shop, an't like your worship, just
At corner of a street:—Here is the plot on't—
And I would know by art, sir, of your worship,
Which way I should make my door, by necromancy,
And where my shelves; and which should be for boxes,
And which for pots. I would be glad to thrive, sir:

The Alchemist, Ben Jonson

Today, the planning and design of a food and drink outlet is not only big business but a constantly evolving cycle to keep up with changing consumer preferences and operational trends. Great effort is put into identifying and targeting specific markets along with attempts to understand the psychological motivations that trigger consumer responses.²⁹⁰ From the layout of the fixtures and fittings to colour palettes, lighting and signage, every aspect of a shop's make-up is scrutinized in an attempt to deploy that which is most fit for purpose and maximise sales. One of the fundamental elements of a successful business is the design. As Norman notes,

²⁹⁰ Lawson, Restaurants, Clubs and Bars, see introduction.

"All artificial things are designed. Whether it is the layout of furniture in a room, the paths through a garden or forest, or the intricacies of an electronic device, some person or group of people had to decide upon the layout, operation, and mechanisms." ²⁹¹

He further argues that, as well as a design fulfilling human needs, attention must be paid to the entire experience, which means the aesthetics of form and the quality of interaction must also be satisfied.²⁹² These fundamental principles are no less relevant to the design of Roman food and drink establishments (Fig. 4.1). But to what extent is our modern zeal to bolster the bottom line echoed in the way Roman proprietors designed their retail space? What principles did they work from? Can we pinpoint actual thought processes behind, say, the placement of the counter or the decorative schemes used in the shop? Or was Roman bar design determined by chance, 'by art' as in Jonson's play *The Alchemist*, or by superstition?²⁹³ The decisions made at the planning stage, whether carefully considered or implemented with little thought, are important because they affect how both staff and customers inhabit the space. They shape the multisensory experience (for good or bad) and can mean the difference between a thriving business or a failure.

Before assessing how the design of a bar affected the sensory experience, it is necessary to understand the form and function of the key features identified in the previous chapter. Here, I will examine these elements in more detail to assess if there was a set template to their design and to establish the extent to which design trends changed across the three sites.

Design basics: The counter

Often a prominent feature, and common to all of the bars, was the masonry service counter. These substantial structures are readily identifiable as they bear a marked similarity to modern service counters in shops and bars. They are typically of brick construction and can be decorated with painted plaster or marble. The presence of such a structure running parallel to a wide threshold (often with secondary arms perpendicular to the threshold) would mark the premises out as commercial in use. The counters take up a large proportion of the entrance space forming a separation between customers and staff. Decisions regarding which side of the shop to place the counter were also key, as Ellis has demonstrated that such a decision was linked to the

²⁹¹ D. A. Norman, *The Design of Everyday Things* (Cambridge, MA: MIT Press, 2013), 4.

²⁹² Ibid.

²⁹³ For counter position based on superstition, see Ellis, "Pes Dexter," 166ff. For superstitious beliefs related to the doorway, see A. Mac Mahon, "The Realm of Janus: Doorways in the Roman World," in *TRAC 2002: Proceedings of the Twelfth Annual Theoretical Roman Archaeology Conference, Canterbury 2002*, eds. G. Carr, E. Swift and J. Weekes (Oxford: Oxbow Books, 2003), 58–73.

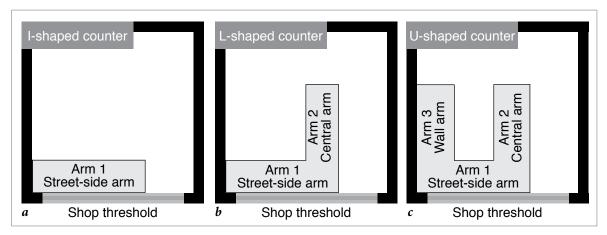


Fig. 4.2 The three basic counter shapes. a, I-shaped. b, L-shaped. c, U-shaped.

direction of ambulatory traffic.²⁹⁴ The counter's position may also have been influenced by superstition and the Roman predilection for the right — according to Ellis entering a shop on the right-hand side of the threshold was ingrained in the Roman mind-set.²⁹⁵ As well as acting as an area to serve and prepare food and drink, the counter could also double as the 'shop window', enticing customers to stop with its display of merchandise.

Shape

The shapes of the counters can be broken down into three main categories, I-shaped, L-shaped and U-shaped.²⁹⁶ The I-shaped counter is the simplest form and consists of a single arm that generally sits at the front of the shop, parallel to the threshold. The L-shaped counter is similarly positioned but also has a second arm that runs at a right angle to the first arm into the main floor space of the room. The U-shaped counter provides further working and/or storage space with a third arm parallel to the central arm that sits up against a wall (Fig. 4.2). At Pompeii, the L-shaped counter is the most prevalent form with 62 (82%) of bars having this arrangement, followed by the U-shaped counter with 12 (16%) (Fig. 4.3).²⁹⁷ At Herculaneum the U-shaped counter is the most popular with 4 (67%). The trend towards L- and U-shaped counters is not replicated at Ostia where the I-shaped counter is the most common with 10 (66%) opting for this form.²⁹⁸

Although the general shapes of the counters are similar across the three sites, the Ostian examples have their

²⁹⁴ Ellis, "The Pompeian Bar," 135ff; Ellis, Roman Retail Revolution, 89.

²⁹⁵ Ellis, "Pes Dexter," 166ff. See also Ellis, Roman Retail Revolution, 202-06.

²⁹⁶ For counter shapes, see Ellis, "The Pompeian Bar," 43–6; Ellis, *Roman Retail Revolution*, 51–52; Mac Mahon, "The *Taberna* Counters," 5.

²⁹⁷ Ellis found similar trends in counter shape at Pompeii (L-shaped 71%, U-shaped, 11%).

²⁹⁸ In total, 35 counters are recorded in Ostian bars, many of which are known only from Gismondi's plans. I.10.2, II.2.2 (east), III.17.5, IV.5.7 (two counters recorded), IV.5.10, V.4.1, see Hermansen, *Ostia*, 134–35, 138–39, 161–62, 169–72, 178–79.

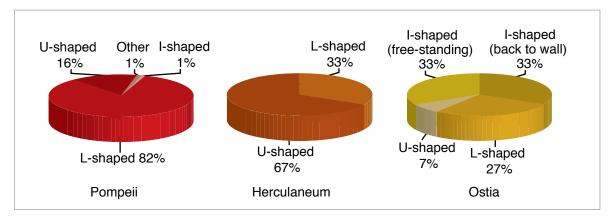


Fig. 4.3 Proportion of different counter shapes at a, Pompeii, b, Herculaneum and c, Ostia.

own particular design characteristics. For example, although many of the I-shaped counters are positioned at the front of the shop, around half of them sit perpendicular to threshold and run instead against an internal wall (fig. 4.4).²⁹⁹ This is not a standard vending counter position as it does not form a barrier between customer and server.³⁰⁰ However, in most cases where this type of counter is installed, an L-shaped counter (with the dimensions of the one at I.2.5) could have fitted quite comfortably in the space and still have retained ample room for entry into the bar.³⁰¹ This suggests that a choice was made not to install this configuration, presumably because a 'service' counter was not deemed necessary for these particular businesses.

The L-shaped counters at Ostia also have a slightly different design from those at the other two sites. With the exception of the counters at I.2.5 and IV.5.2, the street-side arm takes up far less of the entrance space than



Fig. 4.4 I-shaped counter built against a wall at III.7.3, room 6, Ostia.



Fig. 4.5 L-shaped counter with a truncated front arm at IV.2.1 room 2 Ostia.

²⁹⁹ For example, I.16.1 4th north of stairs; II.6.5 4th shop from north; III.7.3 room 6; III.14.1 northeast; IV.2.3 room 3.

³⁰⁰ Mac Mahon, "The Taberna Counters," 77.

³⁰¹ Using the dimensions of the counter at I.2.5 Ostia, I plotted the counter's footprint onto the floor plans of the bars at I.16.1 4th north of stairs, II.vi.5 4th shop from north, III.7.3 room 6 and III.vii.3 room 2 — all revealed an adequate fit.

its counterparts at the other sites (Fig. 4.5). This reduction to the front-of-shop service area would seem to suggest that, unlike the wider examples, this street-facing arm was not a primary serving point. 302 Whatever the particular form, the basic counter shapes seen in the Roman bars have continued to be implemented in bars and restaurants to this day. Illustrating that their utilitarian design is equally applicable and practical for the 21st century (Figs 4.6-7).

REDACTED

Fig. 4.6. L-shaped counter at Harry Gordon's bar in Selfridges, London (image: www.travelswithbeer.com).

REDACTED

Fig. 4.7 Typical plan types in early Victorian pubs showing counter shapes (shaded), (image: Victorian Pubs, Mark Girouard, p.64).

Counter heights

The height of the counters varies considerably across the three sites, giving an overall range of 0.54m to 1.24m (Fig. 4.8).³⁰³ Counters at Herculaneum tend to cluster at the lower end of the scale (0.54–0.75m), whereas the free-standing counters at Ostia cluster at the top end of the scale (0.90–1.24m). This raises the question as to why the height of the counters differed so much. The answer is probably related to the function of the counter and the type of merchandise that was sold. For example, if the counter was used to prepare food, then its height would need to be at a comfortable level for tasks such as cutting, grinding or mixing. But if it was for customers to stand at and/or lean on while they consumed food and drink, then the counter would need to be taller.

Today, several factors are taken into account when calculating the optimum height of a counter, including the average height of the serving staff, the amount of space needed for display and preparation, and the dimensions needed to comfortably accommodate customers.³⁰⁴ The average height of a modern 'standing' bar counter

³⁰² For example, I.12.10 (in the northeast corner), III.5.1 (room X), IV.2.3 (room 2) and IV.7.3 (2nd shop from the west).

³⁰³ For a discussion of counter heights, see Ellis, "The Pompeian Bar," 46; Ellis, *Roman Retail Revolution*, 52; Mac Mahon, "The Taberna Counters," 76–77.

³⁰⁴ Lawson, Restaurants, Clubs and Bars, 82-83.

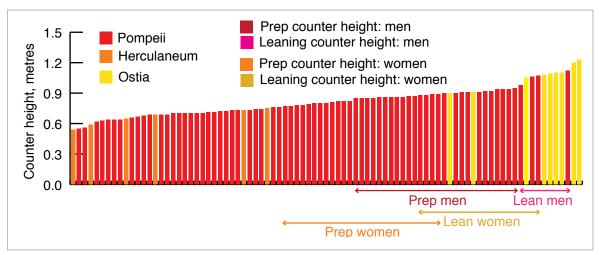


Fig. 4.8 Counter heights for street-side arms at Pompeii, Herculaneum and Ostia, indicating those that are within the optimum height ranges for food preparation and customer leaning (type 2 (I-shaped set against a wall) counters at Ostia are not included, nor are counters at I.10.2, I.13.13, VI.16.2, VII.1.1, which are ruinous).

is 0.99–1.08m, and a counter used for preparation is 0.86–0.9m.³⁰⁵ If we use these values and adjust them to account for the slightly shorter stature of the Romans, we can evaluate the Roman bars in terms of comfort and usage (Fig. 4.9).³⁰⁶ This reveals that 38 (53%) of the counters at Pompeii fit within the optimum male/female

height range for preparation counters compared with just 2 (22%) at Ostia. None of the counters at Herculaneum and 30 (42%) of those in Pompeii is tall enough to reach the lowest level of the height range for preparation, meaning that staff would have had to bend to perform their tasks, which could have resulted in strain and back-pain. When it comes to optimum leaning heights, 21 (24%) of the counters fall within the range for women (18 at Pompeii, 3 at Ostia) and just 9 (10%) fall in the range for men (4 at Pompeii, 5 at Ostia). However, although these figures suggest that the counters might have been optimized for female clientele,

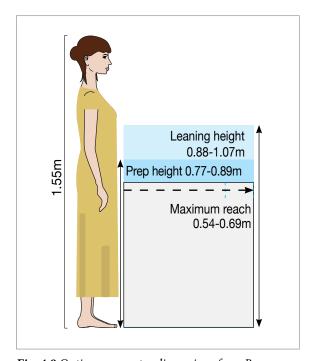


Fig. 4.9 Optimum counter dimensions for a Roman woman.

³⁰⁵ Ibid., 82-83, 186.

³⁰⁶ Lawson bases his calculations on the 'average' height of a woman but does not specify the height he uses or where the average height of a counter is calculated from. Calculations were therefore made on the basis of a woman in England at 1.64m and male 1.77m, age 25–34 in 2012, data taken from Moody, "Adult anthropometric measures," 19. Average height of a Roman at Pompeii: men 1.67m, women 1.54m. See Garnsey, *Food and Society*, 58. I have added 5% either side to the resulting average Roman height, to allow for a wider range of people.

the difference between the lowest leaning height for men and women is just 10cm, so it is unlikely that male clientele would have suffered any significant discomfort. Although in most cases it would still have been possible for the taller counters to be used for food preparation, their height clearly marks them for use by customers, offering as they do a more comfortable experience for the consumption of goods.

But to what extent was the height of the counter planned? Some of the ruinous counters show that the *dolia* were positioned at ground level which suggests that the counter was constructed around them (Fig. 4.10).³⁰⁷ In which case, the height of the counter was solely determined by the height of the *dolia*. An examination of the data show that



Fig. 4.10 Dolia showing that they sit at the base of the counter. a, IV.14-15 Herculaneum; b, I.3.11 Pompeii.

the mean height of the counters with *dolia* was lower than those without (0.75m rising to 0.83m). This may indicate that the lower hight was intended to facilitate easier access to the contents of the *dolia*, or that it was just easier not to raise the *dolia* up and simply build around them. Whatever the rationale, the lower range would have been more convenient for use to a wider range of serving staff with diverse statures.

At Ostia, the height of the counters is probably connected to the space needed for the construction of the barrel-vaulted basin. Indeed, in both types of counter, the height of the basins are similar (free-standing, mean 82cm, I-shaped built up against a wall, mean 78cm). So, just like the *dolia* embedded in the counters at Pompeii and Herculaneum, the basin seems to have played a major role in determining the height of the Ostian counters.

Counter widths

The size of the counters would have been dictated largely by the available floor space — which would include consideration of whether the room also needed to accommodate tables and chairs — and by the exact nature

³⁰⁷ Mac Mahon, "The Taberna Counters," 79. Although the majority of *dolia* seem to be positioned at ground level, this is not always the case. For example, at Pompeii, I.11.16, VII.9.39.

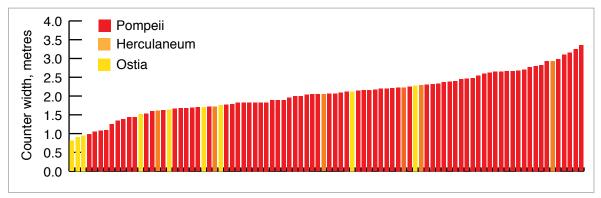


Fig. 4.11 Widths of front, street-facing arm of counters in Pompeii, Herculaneum and Ostia.

elements such as *dolia* were required. In contrast with the clustering seen at the sites for counter height, the widths of the street-facing arms display a reasonable range for all three locations (Fig. 4.11). In Pompeii the widths range from 0.98m to 3.35m, at Herculaneum they are 1.61–2.93m, and at Ostia they are 0.81–2.28m.³⁰⁸ If we look at the mean widths of all

of the business, which would govern whether

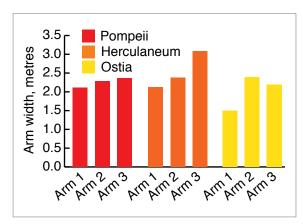


Fig. 4.12 Mean counter-arm widths.

of the counter arms, those at Ostia come out as being a little shorter than at the other two sites (Fig. 4.12).³⁰⁹ This suggests that the way the bars operated at Ostia was different from the other two sites, and that street-side service may have been less important.

Counter depths

When it come to the depths of the counter arms, there is considerable variance (Fig. 4.13). At Pompeii, the depth of the street-facing arm ranges from a very narrow 0.16m to 1.10m, with a mean depth of 0.65m.

At Herculaneum, the depths range from 0.61m to 1.06m, with a mean of 0.86m; and at Ostia the range is 0.30–0.64m, with a mean of 0.58m. Overall, the Ostian counters tend towards the lower to middle end of the scale whereas those at Herculaneum occupy the higher range. For those counters with more than one arm (L-shaped and U-shaped), the data show that there is reasonable variance even for a single counter (Fig. 4.14).

³⁰⁸ For Ostia this does not include the type 2 counters (built against a wall) or the counter at IV.7.4, which does not run along the threshold.

³⁰⁹ Although the third-arm width for Herculaneum seems high, this is because the mean is distorted by the counter at II.6, which measures a hefty 4.07m.

³¹⁰ This calculation does not include the I-shaped counters built against a wall at Ostia.

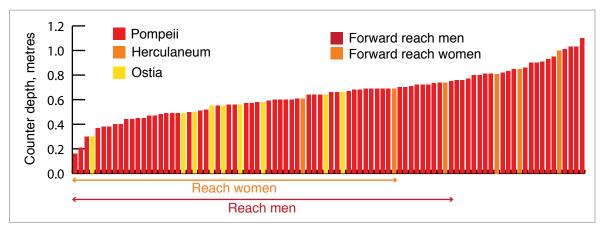


Fig. 4.13 Depths of front, street-facing arm of counters in Pompeii, Herculaneum and Ostia.

For example, at VII.2.32 Pompeii, arm 1 is 1.03m, arm 2 is 0.89m and arm 3 is 0.94m. There also seems to be no pattern as to which arm has the greatest depth. At Pompeii for example, there is an almost 50/50 split between those for which arm 1 is the deepest and those for which it is arm 2.

When the counter depths across the three sites are compared with the adjusted modern standards (Fig. 4.15), a high proportion of the ancient counter arms fell outside of the recommendations for reach — 11 of 16 arms (69%) at Herculaneum, 73 of 164 arms (45%) at Pompeii, and 5 of 18 arms (28%) at Ostia.³¹¹ Although perhaps not as crucial a criterion as counter height, depths that went beyond optimum dimensions would have encouraged overreaching, resulting in possible muscle strain, with the greatest impact on the shoulders and lower back.³¹²

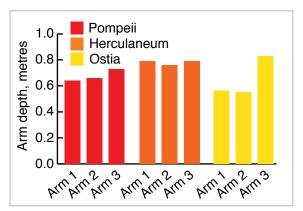


Fig. 4.14 Mean counter-arm depths.

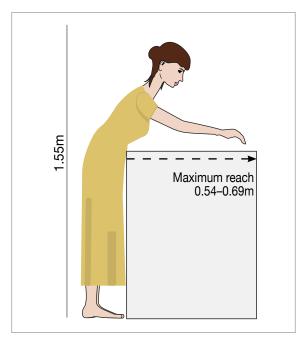


Fig. 4.15 Optimum counter dimensions for a Roman woman — reach depth.

³¹¹ Lawson, Restaurants, Clubs and Bars, 85.

³¹² Environmental Health and Safety, Iowa State University, accessed March 7, 2018, https://www.ehs.iastate.edu/services/occupational/ergonomics/risk-factors.

Stepped shelves

A feature often found in conjunction with a counter are the masonry shelving units, which can be identified as a sequence of small, often similarly sized, steps built on the counter top or as a free-standing unit. The shelves — decorated in painted plaster or marble — facilitated the storage and display of goods (Figs 4.16, 4.17).³¹³ They appear at 27 (36%) of the establishments in Pompeii and 7 (47%) in Ostia, although there is just one example at Herculaneum.³¹⁴ The number of shelves in each set-up varies between two and six, but three seems to have been the most common (Fig. 4.18). When associated with L-shaped counters, the shelves are positioned at the end of the street-facing arm where



Fig. 4.16 Typical example of stepped shelves, at I.3.2 Pompeii.



Fig. 4.17 Independent stepped-shelving unit at I.2.5 Ostia.

it butts up against the wall. In contrast, the two U-shaped counters in Pompeii with stepped shelves incorporate them at a midway point in the third arm that runs along the wall.³¹⁵ At Ostia, the design and placement of the shelves is very different. In four instances, the shelves form an independent unit that sits on the floor, rather than being incorporated into the counter construction.³¹⁶ These units are generally larger

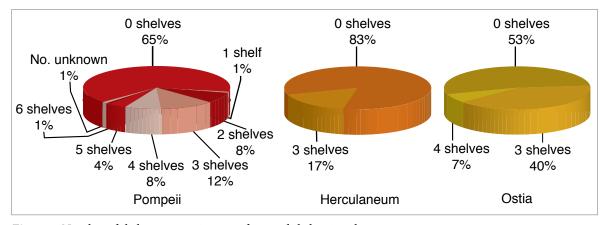


Fig. 4.18 Number of shelves present in a set of stepped shelves in a bar.

³¹³ Ellis, "The Pompeian Bar," 53–54. Ellis, *Roman Retail Revolution*, 52; Mac Mahon, "The Taberna Counters," 71.

³¹⁴ At Ostia, this figure includes four sets of independent shelves and three built into the counter design that is built against a wall.

³¹⁵ I.9.4 and I.11.1.

³¹⁶ I.2.5 room 6; IV.2.3 room 3; IV.2.6; IV.7.4.

and provide a greater storage capacity than the Pompeian versions. The rest of the shelves sit above the vaulted basin in I-shaped counters that are set against a wall.³¹⁷

The height and depth of the shelves vary across the three sites. Interestingly, there is often little consistency in the dimensions of any one set of shelves. For example, the height of the shelves at VI.16.40 in Pompeii, varies from 10.5cm to 17cm, and the depth ranges from 14cm to 19cm. It is not clear if this is a design decision or the effects of restoration. The width of the shelves generally matches the depth of the counter but in some instances the shelves have been extended to reach farther into the shop or out from the front of the counter towards the street. Extending the shelving unit into the shop



Fig. 4.19 Example of stepped shelves built behind the counter at VII.9.30 Pompeii.



Fig. 4.20 Example of stepped shelves built in front of the counter at V.2.13 Pompeii.

space makes sense as it increases storage and puts everything in reach of the person serving behind the counter (Fig. 4.19).³¹⁸ However, extending the shelving out towards the front of the shop seems impractical (Fig. 4.20),³¹⁹ as the person behind the counter would not always have been able to reach items on the farthest part of the shelves. In fact, the shelves seem to be positioned for the convenience of those standing in front of the counter, rather than behind. This might suggest an element of self-service or that staff stood at the front of the counter to serve customers in carts, like a modern drive-through restaurant. Whatever the case, this design is a break from the norm and highlights a conscious decision to tailor fixtures to specific needs.

Shelving function

As we have seen from the Isola Sacra relief (Fig. 3.2), the stepped shelves could have been used for storing beakers and jugs additionally they could have been used for dishes and food items.³²⁰ Another example of the

³¹⁷ I.16.1, III.7.3 rooms 2 and 6.

³¹⁸ VII.9.30; VII.13.24; VII.16.7; VIII.2.24.

³¹⁹ At Pompeii, II.1.1; V.2.13; VI.1.17; VI.16.40; IX.9.1 and at Herculaneum IV.15–16.

³²⁰ See also, Fiorelli, *Descrizione*, 267 (re VII.9.30); 267 (re VII.9.30); Meiggs, *Roman Ostia*, 428; Ellis, "The Pompeian Bar," 53; Packer, "Inns at Pompeii," 18. Possibly also, SHA, *Verus*, 4.8.

stepped-shelf system can be seen in a terracotta figurine from Asia Minor (fig 4.21). This example highlights that this form of shelving (as opposed to wall shelving) was used as a means to display and show off wares. In which case, for the proprietors of the bars, this often visually prominent element of the counter design could have been used to advertise and project status with the crockery or foodstuffs displayed there.

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Storage

In some instances, the design of the counter incorporates extra storage space (Fig. 4.22).³²¹ For example, at Pompeii, cube-like voids can sometimes be found beneath the main body of the counter.³²² Given their floor-level position,

Fig. 4.21 Terracotta figurine showing a child standing in front of a crockery display, note the stepped shelves. Hellenistic period. From Asia Minor, perhaps Myrina. Louvre Museum (image: Marie-Lan Nguyen, Wikimedia Commons).

it would seem likely that these voids were used for bulky items such as pots and utensils, items that needed to be readily available but were not essential for counter-top access. In some cases, storage can also be found beneath the stepped shelves, although this is not a design seen at Herculaneum, Pompeii has nine examples. Four of these take the form of a box-type receptacle, and five are formed of arches.³²³ At Ostia, there are three

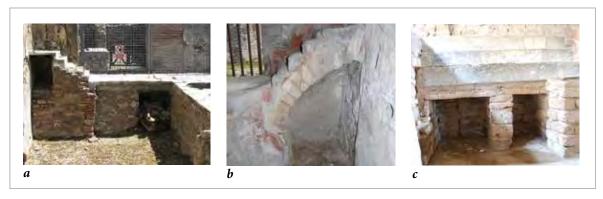


Fig. **4.22** *a*, Box and under-counter storage at V.4.7 Pompeii. *b*, Arched storage space under shelving II.8.3 Pompeii. *c*, Under-shelf storage bays at I.2.5 Ostia.

³²¹ For storage facilities, see Foss, "Kitchens and dining rooms," 14–16. Also, Columella, *Rust.* 12.2.6, 12.3.2-4. For household food storage, see Allison, *Pompeian Households*, 127–30. For storage of cooking and dining artefacts, see J. Berry, *The Complete Pompeii* (London: Thames & Hudson, 2015), 178.

³²² U-shape: I.9.4, VI.3.20, VII.2.32. L-shape: V.4.7, VI.10.3, (and IX.7.24 not in this survey).

³²³ Storage under stepped shelves: I.11.16; II.4.7; V.4.7; VIII.2.24. Arch under the stepped shelves: II.8.3; VI.1.18; VI.10.1; VII.9.30; VII.16. 7 (and VI.17.4 not in this survey).

examples of under-shelf storage units, varying in size and depth.³²⁴ The small storage bays may have been used for cash-boxes while the larger versions could have housed amphorae.³²⁵

Dolia

A prominent feature of many of the counters at Pompeii and Herculaneum are the large convex earthenware vessels (*dolia*) embedded into the counter. These vessels are usually large — often of a similar height to the counter — and facilitated the storage and easy access of comestibles.³²⁶

At Pompeii, 49 (64%) of the counters have this feature and at Herculaneum it is 5 (83%). The number of *dolia* in any one counter ranges from one to thirteen at Pompeii and two to eight at Herculaneum. Perhaps unsurprisingly the higher numbers of *dolia* are associated with the U-shaped counters, although some of the L-shaped counters also manage to pack in five or six vessels, despite the lower arm capacity.³²⁷



Fig. 4.23 Dolium at V.6 Herculaneum.



Fig. 4.24 Dolium at IV.15-16 Herculaneum.

The shapes of the *dolia* vary from those that have straight sides to ones with a more curved and bulbous form (Fig. 4.23, 24). The height of the *dolia* is difficult to record on-site as they are often filled with stones or debris. However, as many of the ruined counters show, the *dolia* often sit on the floor, so the height would probably resemble that of the counter. The diameter of the *dolia* at the lip (inner edge) in Pompeii ranges from 18cm to 65cm and at Herculaneum from 28cm to 46cm. In many cases the diameter of the *dolia* differ from each

³²⁴ At I.2.5 each of the two stepped-shelving units has storage space beneath; also at IV.2.6.

³²⁵ Cash boxes, see Ellis, "The Pompeian Bar," 401 (citing *GdS* 1862, 42). For the use of, see Mart. 10.15, 14.12, 14.13; Juv. 11.38; Petron. *Sat.* 140. For an example of wooden cash-box, see L. Franchi dell'Orto and A. Varone, *Rediscovering Pompeii*, first ed. (Rome: Lerma di Bretschneider, 1992), 169, no. 55. Used for *amphorae*: Ellis, "The Pompeian bar," 55; L. Eschebach and J. Müller-Trollius *Gebäudeverzeichnis Und Stadtplan Der Antiken Stadt Pompeji* (Cologne: Böhlau, 1993), 96.

³²⁶ Ellis, *Roman Retail Revolution*, 53, for the financial outlay 175; Mac Mahon, "The Taberna Counters," 79–81. For cost and reuse, see J. T. Peña, *Roman Pottery in the Archaeological Record* (Cambridge: CUP, 2007), 46–47.

³²⁷ For example at IX.7.13, VI.2.5 and VII.1.39.

other even within a single counter. For example, those in the counter at IV.15–16 Herculaneum, range from 31cm to 39cm. This may suggest that the different sizes were used for different foodstuffs.

Of the 54 counters at Pompeii and Herculaneum with embedded *dolia*, 26 (48%) have them positioned in the side arms leaving the street-facing side free. This supports the notion that customers could be served at the threshold without having to enter the premises. In the counters where *dolia* are placed in the street-facing arm, they are usually placed roughly equidistant between the server and customer — but in some the *dolia* are



Fig. 4.25 Dolia positioned closer to server side of counter. **a**, VI.3.20 Pompeii. **b**, VII.2.32 Pompeii. **c**, IV.15–16 Herculaneum.

much closer to the server side (Fig. 4.25). For

example, the *dolium* in the centre of the street-facing arm at VI.3.20 in Pompeii is 10cm away from the server and 58cm from the customer. Such a positioning was presumably intended to ease staff access to the *dolia*'s contents, reinforcing the idea that, generally, the staff were on one side of the counter serving customers on the street side. Unlike other features, for which it is unclear whether design decisions were intentional (such as differing arm or stepped-shelf depths), here we seem to have a conscious decision based on usability.³³⁰

Evidence for what the *dolia* were used for is scant.³³¹ Contrary to popular belief, the *dolia* did not hold wet foods such as stews or wine. Packer has convincingly argued that for the *dolia*, which were made of a porous material, to hold liquids they would need to be sealed with pitch and that cleaning liquids out of these large embedded jars would be impractical.³³² It seems more likely that these containers held dried foods.³³³ This

³²⁸ For example, the front arm is kept clear at I.9.4, VI.10.1, IX.1.8 while a space seems to have been left clear at VI.1.1-32, VI.8.8 and VII.4.4.

³²⁹ Ellis, "The Pompeian Bar," 46; Mac Mahon, "The Taberna Counters," 71-72.

³³⁰ For an explanation of human-centred design, see Norman, Design of Everyday Things, 8-10.

³³¹ See Ellis, Roman Retail Revolution, 53-4; Mac Mahon, "The Taberna Counters," 79-82.

³³² Packer, "Inns at Pompeii," 47-48.

³³³ However, Monteix notes that "no positive data permits the identification of their contents" and that

is perhaps backed up by a graffito found in Pompeii on the wall of an atrium with a connecting door to the bar at IX.7.24–25: as well as list of various food stuffs, the word 'HXERES' is included — meaning 'dried foods'. Whether or not the foodstuffs sold from the *dolia* were exclusively for consumption on the premises is debatable. It is possible that some of the bars also acted as 'grocery' shops, with food being sold to be taken away — a scenario that might help to explain the abundance of such shops within the Roman towns. 335

Wall shelving

As well as storage associated with the counter, additional space was provided by wall shelving.³³⁶ At Pompeii, for example, the bars at IX.1.8 and VI.3.23 retain a series of holes attesting to the shelving that was once located behind the counter, within easy reach of those serving. In the bar at IV.17 Herculaneum, shelving holes are found in the small seating area of the bar, suggesting that the shelves would have been positioned above guests' heads.³³⁷ Shelving for *amphorae* is also found at Herculaneum at V.6 and Ins. Or. II.9.³³⁸

Water basins

Another major difference in the design of the Ostian counters, compared with those at Pompeii and Herculaneum, is that none of the counters contains *dolia*. Instead, they feature barrel-vaulted basins (Fig. 4.26). Grimal, asserted that the basin in the counter at I.2.5 was a 'charcoal stove', whereas Meiggs believed that the function of the basins was to wash glasses and dishes.³³⁹ Hermansen rightly refuted these theories, and asserted that there was no doubt that the basins were meant for the water used to dilute the wine, a prerequisite for the bars.³⁴⁰ To back up his theory, he gives examples of the bars in which water pipes linked to the counter basins were found.³⁴¹ In addition, my on-site investigations have further corroborated

the contents of the *dolia* at the *Casa di Nettuno e Anfirtite* are an invention based on a *mise-en-scène* after the excavation. See N. Monteix, "Baking and Cooking," in Wilkins and Nadeau, A *Companion to Food*, 218.

³³⁴ Ellis, "The Pompeian Bar," 57; F. W. Cleaves, "Hxeres," *Classical Philology* 29 (1934): 68. A small bowl, believed to have been used as a scoop was found in the *dolia* of the counter at VIII.4.40–40a Pompeii, see Ellis, "The Pompeian Bar," 57.

³³⁵ For bars operating as grocery shops, see Beard, Pompeii, 226–27; Berry, Complete Pompeii, 230.

³³⁶ For wall shelving at Pompeii and Herculaneum, see Ellis, "The Pompeian Bar," 63-64.

³³⁷ A. Maiuri, *Herculaneum*, 4th revised and up to date ed., Guide-Books to the Museums and Monuments of Italy, no. 53 (Rome: Istituto poligrafico dello Stato, Libreria dello Stato, 1956), 58.

³³⁸ See note 259.

³³⁹ P. Grimal, *The Civilization of Rome* (London: Allen & Unwin, 1963), 226; Meiggs, *Roman Ostia*, 428.

³⁴⁰ Hermansen, "Roman Inns," 176-78; Hermansen, Ostia, 189.

³⁴¹ For example, at IV.7.4, III.1.10, IV.2.3, room 10. A piece of lead water pipe was also found in the south end of the counter of the *thermopolium* in Via di Diana. Hermansen, *Ostia*, 189–90. For I.3.1 room 16, see M. A. Ricciardi and V. S. M. Scrinari, *La Civiltà Dell'acqua in Ostia Antica* (Rome: Fratelli Palombi, 1996), 21-22.

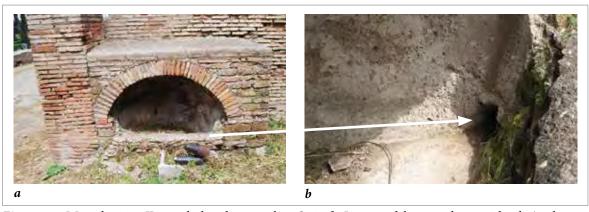


Fig. 4.26 a, Water basin at II.6.5 4th shop from north in Ostia. **b**, Interior of the water basin with inlet/outlet hole on right.

Hermansen's theory with evidence of inlet/outlet holes in a number of the counter basins.³⁴² From an operational view point, staff had ready access to these basins regardless of the counter configuration but, intriguingly, for free-standing counters, the water basins are accessible from either side. This may indicate that staff served from both sides of the counter or that customers helped themselves (perhaps with the aid of ladle) to the water to dilute their wine.

Why there was a shift from *dolia* to water basins as part of the counter design is not entirely clear. Hermansen has argued that there was a close relationship between Roman legislation and the change in appearance of the bars at Ostia and that this was linked to the laws restricting what could be sold in the bars.³⁴³ He says the aim of these laws was to make the bars less attractive, thereby controlling the drunkenness and gossip that could arise and result in political conspiracies.³⁴⁴ However, it might be wondered why the laws did not tackle this issue head on, by controlling the types of drink that could be sold in the bars or regulating their opening hours, instead of limiting what foodstuffs could be sold. Indeed, it seems odd that the 'new' style counter centred on the sale of drink rather than food. This is clearly an issue that needs more attention and an examination of food and drink outlets elsewhere in the Roman world would help to establish if the patterns at Ostia were unique.

Cooking facilities

The cooking facilities found in the bars can be divided into two basic types: those that are attached to the counter and those that form a separate, independent unit either in the main retail room or in a connected room.³⁴⁵

³⁴² For example, at I.2.5, II.6.5 4th shop from north, III.7.3 room 6.

³⁴³ Hermansen, "Roman Inns," 167. See also Ellis, Roman Retail Revolution, 237-38.

³⁴⁴ Hermansen, "Roman Inns," 170.

³⁴⁵ Ellis, *Roman Retail Revolution*, 53–58; Mac Mahon, "The *Taberna* Counters," 71. On cooking facilities at Pompeii generally, see L. Fulvio, "Delle fornaci e dei forni pompeiani," in *Pompei e La Regione Sotterrata*

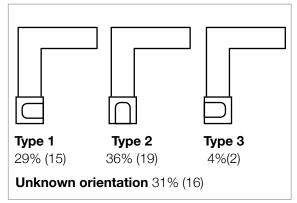


Fig. 4.27 Types of built in attached hearths.

Attached hearths

The attached hearth was incorporated into the end of the counter arm that runs into the middle of the shop.³⁴⁶ The basic form of this masonry hearth is of a horseshoe shape atop a raised tiled platform enclosed by walls that surrounded the fire and coals.³⁴⁷ Indeed, when excavated, the hearth at IX.11.2 Pompeii revealed a cooking pot *in situ* and at I.11.11 Pompeii, the excavators discovered ashes from the fire — demonstrating that this type of fixture was used for cooking.³⁴⁸ At Pompeii, 50 (66%) of the hearths were attached to the counter,



Fig. 4.28 Type 2 hearth at VI.2.5 Pompeii.



Fig. 4.29 The interior or the attached hearth at I.11.16 Pompeii, note the ledges on which the cooking vessels were placed

however, at Herculaneum and Ostia there is just one extant example of this design at each site.³⁴⁹ This style of hearth can be further broken down into three main designs (Fig. 4.27). In the first, the hearth was positioned so that it could be accessed from inside the serving space, in the second it was accessed from the end of the counter (Fig. 4.28, 4.29) and in the third design, it was positioned so that it projected into the room. The last

Dal Vesuvio Nell'anno LXXIX (Naples: F. Giannini, 1879), 273–91; Foss, "Kitchens and dining rooms," 78–84; Monteix, Les Lieux de Métier, 97–102. For Ostia, see S. Riva, "Le cucine delle case di Ostia," in Mededelingen van het Nederlands Instituut te Rome 58 (1999): 117–28. The bars may also have had portable braziers as a number have been found at Pompeian bars (I.10.13, II.1.1, VI.1.2, VI.15.15, IX.11.2), see Ellis, Roman Retail Revolution, 55, note 93. See also Foss, "Kitchens and dining rooms," 18–19; Roberts, Life and Death, 249, Fig. 300; C. Scheffer, Cooking and cooking stands in Italy, 1400–400 B.C. (Stockholm: Åström 1981), 98–103.

- 346 For its operation, see Monteix, "Baking and Cooking," 218–19.
- 347 Foss, "Kitchens and dining rooms," 79.
- 348 Ellis, "The Pompeian Bar," 506; Jashemski, "The Caupona of Euxinus," 37;
- 349 At Ins. Or. II.13 Herculaneum, I.3.1 room 15 Ostia. The bar at Ins. Or. II.6 Herculaneum may also have had an attached hearth, see Monteix, *Les Lieux de Métier*, 411.

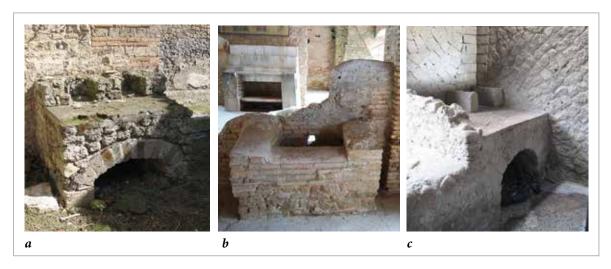


Fig. 4.30 Designs of independent hearths. **a**, I.3.28 Pompeii. **b**, I.2.5 Ostia. **c**, One of the two hearths at V.6 Herculaneum.

type (seen in Pompeii at I.11.16 and I.14.15) seems somewhat impractical as it would have required the person stoking the fire to encroach into customer space.³⁵⁰ The low take-up of this particular form suggests that its design was indeed problematic, making it unpopular.

Independent hearths

The independent hearths were built up against a wall and often had a square or arched, floor-level void, which is thought to have been used to store the fuel (Fig. 4.30).³⁵¹ Topped with a tiled cooking surface, pots were placed directly on the coals or a cooking stand.³⁵² A small window above the hearth can often be detected to facilitate the expulsion of smoke.³⁵³ This type of masonry hearth is not unique to the bars as it is also found in non-commercial contexts.³⁵⁴ Often located in a small room, finds of iron tripods and bronze and ceramic cooking pots, illustrate the use of this feature as an installation for cooking.³⁵⁵ At Ostia, the hearths are poorly preserved, the most complete example of an independent hearth can be seen in I.2.5, a design that, once again, does not accord with those seen at the other two sites. Although it is built up against a wall, it does not have a floor level void like those seen at Pompeii and Herculaneum.

³⁵⁰ Ellis, "The Pompeian Bar," 61; Ellis, Roman Retail Revolution, 55–58.

³⁵¹ Ellis, "The Pompeian Bar," 62; B. A. Ault, "Kitchens," in Wilkins and Nadeau, *Companion to Food*, 210.

³⁵² Foss, "Kitchens and dining rooms," 78.

³⁵³ Ellis, "The Pompeian Bar," 62.

³⁵⁴ For example, at Pompeii: I.6.2, IX.9.c. Herculaneum: IV.21, Ins. Or. I.1. Ostia: III.2.12.

³⁵⁵ See Foss, "Kitchens and dining rooms," 291, 299, 301, 302.

Decoration

The counter clearly played a key role in the set-up of many bars, providing a work surface, a place to display merchandise, and facilitating customer and server interaction. As well as its practical qualities, the counter decoration could enhance the overall appearance of the shop and help to attract customers. Over the three sites, a variety of decorative treatments can be seen, ranging from painted plaster to elaborate patterns made of variously coloured marble pieces. The counter decoration could also project status and identity and set the tone of the establishment, therefore targeting the 'right sort' of customer. No doubt these decorative signals would have been obvious to the Roman customers and aided them in their choice of which establishment to patronise.

Plaster and paint

Many of the counters were plastered and painted, often in a red wash, a colour frequently used for exterior walls, which must have resulted in a blur of red where one counter would not have stood out from another. Some shop owners, however, did attempt to differentiate themselves from the competition as a number of the plastered counters were adorned with decorative features. Particularly popular seems to have been images of theatre masks, mythological scenes and depictions of plants and/or animals. The themes chosen to decorate the counter fronts often emulated the artistic tastes of the elite, perhaps in an attempt to attract a better class of clientele, or at least those who thought they were a cut above the rest.

Marble

In some examples, the counter decoration was made up of fragments of marble, these were either placed in a seemingly random design or, in some cases, a distinctive and planned pattern.³⁶¹ The more elaborate designs would presumably have required more skill (and no doubt money) to create due to the cutting and positioning of the material.³⁶² At Ostia, the marble pieces used are often less fragmented and instead we see sizeable slabs.

³⁵⁶ Ellis, Roman Retail Revolution, 58-62; Ardle Mac Mahon, "The Taberna Counters," 72-75.

³⁵⁷ Mac Mahon, "The Taberna Counters," 75.

³⁵⁸ At Pompeii IX.11.2 and I.7.8, the counter fronts are painted in red as are the façades. Fant, Russell, and Barker, "Marble Use and Reuse," 191.

³⁵⁹ Fant, Russell, and Barker, "Marble use and reuse," 191. See 'decoration' in quartiles 1, 2, 3 and 4 for details.

³⁶⁰ For example, depictions of theatre masks at Pompeii in I.10.4, VI.12.20 and VI.17.41. Images of flora and fauna at V.4.a, I.9.5 and VI.17.42.

³⁶¹ For the use of marble fragments, see Fant and Attanasio, "Bars with marble surfaces at Pompeii," 2, for the types of marble used, 5-6; Fant, Russell, and Barker, "Marble use and reuse," 187–91. Counters with a planned pattern, Pompeii, I.8.8, I.11.1, V.4.7, VII.2.32, VII.15.5 (not is survey). Ostia, IV.2.1 room 2; IV.2.3 room 3.

³⁶² Mac Mahon, "The Taberna Counters," 73-74.

As well as its use as a decorative feature, marble was also often used on the counter top.³⁶³ The use of marble as a work surface would certainly seem to be a practical choice as it is particularly hard-wearing and, if food was being prepared, easily cleaned.³⁶⁴ However, as Mac Mahon notes, a wooden chopping board would have been needed to avoid blunting knives.³⁶⁵ The use of marble for public buildings and in elite houses was not uncommon, and its adoption may have been intended to imitate the well-to-do and bolster the perceived status of the establishment.

Additional features

As well as the design and placement of fixtures and fittings central to the running of a bar, additional features — often found in a domestic context — were also included. For example, space was often allocated to a latrine, which might be positioned close to a hearth, at the back of corridors or in a garden. Although the remains tend to be fragmentary, latrines can be identified by a tiled floor and masonry supports or cut-away ledges in walls that supported the seat (that rarely survives) with its key-hole opening. However, the scant remains in situ mean that the presence of latrines often has to be informed from excavation reports. Provision for religious practice was also incorporated into the bars in the form of lararia. In the physical remains, these shrines take the form of an arched, square or rectangular recess in the wall, located at a height easily reached by an adult to make offerings. Shrines could also simply be painted onto the wall — often featuring the Lares (guardian deities) — and so may not have survived (although some can be identified from old photos/excavation reports). He remains a design of the remains of the remains and the remains of the remains are designed as a design of the remains of th

Closed for business

Before moving on to look at the design and function of the bars in more detail, a brief mention must be made about the activities that took place when the bars were closed.³⁶⁹ When the shop's shutters were in place there

³⁶³ Ellis, "The Pompeian Bar," 49–50. At Pompeii I.4.27 and VI.8.8 (the secondary counter), tile fragments were used for the counter top surface, presumably a cheaper alternative. The counter tops at VII.3.1/40 and VII.3.9 Pompeii also have tile counter tops although it is unclear if this was the original treatment or the result of incorrect reconstruction, Ellis, "The Pompeian Bar," 52. See also, Fant and Attanasio, "Bars with marble surfaces at Pompeii," 7.

³⁶⁴ Ellis, "The Pompeian Bar," 50; Mac Mahon, "The Taberna Counters," 75.

³⁶⁵ Mac Mahon, "The Taberna Counters," 75.

³⁶⁶ Ellis, "The Pompeian Bar," 71.

³⁶⁷ Jansen, "Private Toilets at Pompeii," 123; Ellis, "The Pompeian Bar," 70.

³⁶⁸ Boyce, Corpus of the Lararia, 10; Ellis, "The Pompeian Bar,"66-67; Orr, "Roman Domestic Religion", 70-75.

³⁶⁹ For opening times, see Amm. Marc. 28.4.4; D. Sperber, *The City in Roman Palestine* (Oxford: OUP, 1998), 48. Also, Amm. Marc. 14.6.25; *Dig.* 9.2.52.1; Juv. 8.158; Prop. 4.8.2; SHA *Verus* 4.5-8, 21.6; Suet. *Calig.*

would have been numerous tasks for the staff, to ensure the smooth running of the business (Fig. 4.31). In modern bars and restaurants, cleaning tends to take place at the end of service, a practice that may well have been adopted in the Roman bars.³⁷⁰ Although not a subject that received a great deal of attention in the ancient literature, we can get an idea of cleaning routines from texts mentioning house cleaning or farm management. For example, we hear about floors being swept,



Fig. 4.31 Shop with its shutters (plaster cast) in place at IX.7.10 Pompeii.

cobwebs being brushed away and surfaces being sponged down.³⁷¹ Indeed, for the bars, food dropped on the floor (crumbs, nut shells, olive stones) would have needed to be swept away to avoid attracting flies, and spilt wine removed to get rid of sticky surfaces.³⁷² Tableware, pots, pans and utensils would also have to be cleaned after use.³⁷³ Additionally, walls and ceilings would have become covered in soot from the open fires used for cooking and the numerous lamps used for lighting at night.³⁷⁴ The use of water, detergents (such as Lye) and brushes made of dry elm twigs or palm fibre would all have aided the cleansing process.³⁷⁵ Latrines would also need to be flushed out with water.³⁷⁶ Disposing of waste, cleaning out hearths and refilling lamps with oil would be further tasks for staff.³⁷⁷ Taking in deliveries of goods such as food, wine and fuel would

^{11.1.4;} Apul. Met. 1.4.19.

³⁷⁰ For an overview of cleaning, see A. Croom, *Running the Roman Home* (Stroud: The History Press, 2011), 61–72, 84–87.

³⁷¹ Juv. 14.59; Plaut. Stich. 348-355. Dig. 33.7.12.22 gives the instrumentum required to make a house clean.

³⁷² Plin. *HN*. 28.5.27. Chestnuts: App. Virg. *Copa*. For finds of walnuts at Herculaneum IV.17.18, see Holleran, *Shopping in Ancient Rome*, 143. For dropped food in bars, see note 781.

³⁷³ Washing dishes, Juv. 3.261-3; For a depiction of slaves at work in a kitchen, see the stone relief on the Igel Monument, see Croom, *Running the Roman Home*, Fig. 23.

³⁷⁴ For design tips on dealing with this problem, see Vitr. De arch. 7.100.3-4.

³⁷⁵ For the use of water, see Columella, *Rust.* 12.52.22; 11.11.70; 12.18.3; the use of Lye as a detergent, Columella, *Rust.* 12.52.14-17; the use of dry elm twigs bound around a stick, Cato, *Agr.* 152. Roman-era cleaning brushes made of palm fibre can be seen at the Petrie Museum, London, inventory nos UC27993, UC27994. A Roman wooden scrubbing-brush with bristles preserved (from Sidmant, Egypt) is at the British Museum, no. 1910,1012.1.

³⁷⁶ Jansen, "Private Toilets at Pompeii," 127, Fig. 10.2; Croom, Running the Roman Home, 120-22.

³⁷⁷ Disposal of waste in Pompeii, Herculaneum and Ostia, see Koloski-Ostrow, *Archaeology of Sanitation*, 75–77. Also, J. Hartnett, *The Roman Street: Urban Life and Society in Pompeii, Herculaneum and Rome* (Cambridge: CUP, 2017), 70–73.

have added to the list of chores undertaken.³⁷⁸ But perhaps one of the most important jobs would have been to prepare food for service. This might have been preceded by a trip to the market to buy fresh produce.³⁷⁹ Vegetables would have needed to be peeled and chopped, and meat items butchered ready for the pot. Some of the dishes on offer may well have benefited from a slow cooking process and, as such, the smell of cooking may have been evident early in the morning. Although some of the fare on offer was simple, a pastry tin found at IX.11.2 Pompeii suggests that some items were more complex and required a little more time to produce.³⁸⁰ Seasonings for wine may also have been pre-prepared and stored (see pp.210-211). A ready supply of water — to be added to the wine — would also have been essential. Although provision was made for this in the design of the Ostian bars, at Pompeii and Herculaneum a trip to the local fountain may have been the only option.³⁸¹

Conclusion

An examination of the key features that characterise a food and drink outlet reveals that although seemingly all providing similar services, the design and function of the fixtures and fittings varies across the three sites. In particular, the data illustrate the versatile nature of the service counter — its size, shape and height — which allowed proprietors to tailor its design to their specific needs. Furthermore, we find patterns of preferred counter shape and height at each of the three sites, pointing to possible geographical, and in the case of Ostia, temporal changes in form and function. However, when compared with Pompeii and Herculaneum, we see the biggest design differences in Ostia's counters, with the rejection of *dolia* and the inclusion of water basins. This suggests that at Ostia the bars' function changed to one where the sale of beverages took precedence over food. These changes may have come about due to imperial intervention, in which case we see the design of commercial premises being driven by legislation rather than, as might be expected, the needs of the business or the changing demands of the clientele.

³⁷⁸ See Fig. 7.29 for a depiction of the delivery of wine.

³⁷⁹ For graffiti recording the pattern of markets, see *CIL* IV 8863, Cooley, *Pompeii*, 159–60. For markets in Rome, see Holleran, *Shopping in Ancient Rome*, 159–93; For markets in Campagna, J. M. Frayn, *Markets and Fairs in Roman Italy: Their Social and Economic Importance from the Second Century BC to the Third Century AD*. Oxford: Clarendon Press, 1993, 22–34. Wallace-Hadrill, "Senses in the Marketplace," 69–89. 380 Ellis, "The Pompeian Bar," 506; Packer, "Inns at Pompeii," 48.

³⁸¹ For the use of fountains at Pompeii, see Laurence, Roman Pompeii, 45–52; at Herculaneum, see D. Camardo, M. Castaldi, and J. Thompson, "Water supply and drainage at Herculaneum," in Cura Aquarum in Ephesus: Proceedings of the Twelfth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, ed. Gilbert Wiplinger (Leuven: Peeters, 2006), 197-205; and for Ostia, G. Jansen, "The Unknown Urban Water System at Roman Ostia (Italy)," in Cura Aquarum in Ephesus: Proceedings of the Twelfth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Bulletin Antieke Beschaving 12, eds, Gilbert Wiplinger and Österreichisches Archäologisches Institut (Vienna, Austria) (Leuven: Peeters, 2006), 175-182. For the use of lamps, see Croom, Running the Roman Home, 73, 78–82.

Although the data show a lack of ergonomic consideration with regards to elements such as the counter height, the inclusion of hearths in the counter arm suggests an awareness of a space-conscious design and the need to create a streamlined workstation. In fact, this is also the case for those counters that incorporate stepped shelves and built-in storage — as all of the necessaries for service are placed within easy reach of the server.

When designing fixtures and fittings for a food and drink outlet, a set template for these features was clearly implemented. However, within these parameters there was scope for divergence, giving flexible design solutions that allowed for an individual spin on the construction of key features. Indeed, the versatility of the form and function of the service counter is an enduring Roman legacy still evident in the 21st century as it continues to be adapted to suit bars and restaurants across the world.

5.THE RETAIL SPACE IN FOCUS

Having looked at the basic features that characterise a food and drink business, this chapter will put the fixtures and fittings in the context of the commercial environment to consider the spatial arrangements of the bars in more detail. 382 I argue that decisions made at the planning and design stage of the bar's installation have a profound affect on the way the individual establishments functioned. For example, I look at how the placement of fixtures and fittings shaped movement through the space, how staff and customers interacted with these items, and the practicality of the layout. I also assess how the space was divided in terms of the split between service and customer zones and argue that this can give clues to specific operational practices. The analysis of these data will form the basis for a greater understanding of the experience and sensory landscape of the bars.

As the size of the main bar room varies considerably — from 8.49m² to 126m² — I have split the sample of 97 properties into quartiles to allow for a more meaningful comparison. Quartile 1 represents the smallest bar rooms, and quartile 4 consists of the largest. This division, based on floor area, highlights correlations between the spatial arrangement and the various floor areas, revealing how the ancients prioritised how they used commercial space.

5.1 Quartile 1

The area of the main retail space in quartile 1 ranges from 8.49m² to 18.52m² (with a mean of 14.43m²), the lower limit of which suggests the minimum space considered practical for the functioning of a bar. Of the 24 properties in this quartile, 21 are from Pompeii, two are from Herculaneum and one is from Ostia. Looking at the distribution of these outlets at Pompeii reveals that they are reasonably well spread out across the city (Fig. 5.55).³⁸³ However, the sample highlights a noticeable absence of this size of establishment along

³⁸² Throughout the text, reference is made to the appendix, which provides photographs, plans of the fixtures and fittings, and a short bibliography for each bar. Key: Pompeii, **P-#**; Herculaneum, **H-#**; Ostia, **O-#**. 383 Distribution patterns of bars at Pompeii, see Ellis, "The Distribution of Bars," 371–84; Retail outlets

the eastern side of the city along the Via dell'Abbondanza. This might suggest that bars of this size were not deemed adequate for such a busy part of town and that instead they were relegated to backstreets. However, this is not the case as 11 (46%) of them are located on the main through routes of the city, and 5 (21%) are positioned at an intersection, well placed for maximum exposure to potential customers. At Herculaneum one of the bars is located on a main street while the other is on a secondary street, as is the single example from Ostia (Figs 5.56, 5.57).

Counters

In this somewhat confined space we find that all of the proprietors installed an L-shaped counter, with areas (the physical footprint) ranging from 1.32m^2 to 4.38m^2 (mean 2.25m^2). The interestingly, as the amount of floor space increases, the size of the counter remains relatively unchanged — Fig. 5.1 shows that there is some positive correlation between these two elements. This may be linked to the way in which the space was used. For example, the smallest bars would have accommodated only a few standing customers, meaning that most of these establishments probably acted as wine and/or quick snack shops. However, as the floor space increased, the owners would have had more options — keeping the counter size down would mean that tables and chairs could be introduced, potentially encouraging customers to stay longer and spend more.

Another shared aspect in this quartile is that in all but one of the bars (IV.17 Herculaneum; H-03), the

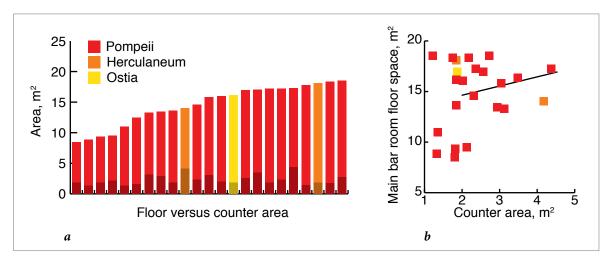


Fig. 5.1 a, Comparison of bar-room area and counter-footprint area (shaded) for bars in quartile 1. **b**, Correlation between counter area with floor area for each bar in quartile 1. (Bar at I.6.5 Pompeii is omitted as the street-facing counter arm is missing.)

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across the Roman Empire, see Ellis, *Roman Retail Revolution*, 87–98, bars at Pompeii, Fig. 3.2, Herculaneum, Fig. 3.5, Ostia, Fig. 6.20.

³⁸⁴ The counter at I.6.5 retains only one counter arm.

counter was positioned at the front threshold. Although perfectly placed to lure passers-by, it could also result in customers spilling out onto the pavement, causing congestion. This may have been a nuisance for pedestrians, but for the bar it could have acted as free visual and auditory advertising — directing people to the conviviality of a buzzing establishment.

A large proportion of the counters, 17 (71%), were positioned on the left-hand side of the shop entrance, giving access through to the shop on the right. That leaves seven bars with counters positioned on the right, forcing customers to enter on the 'unlucky' left-hand side of the shop. 385 Of these, at least three seem to have had their arrangement determined by the architectural constraints of the building — for



Fig. 5.2 The bar at VI.4.1 with right-hand side counter positioned to keep access to secondary entrance clear.



Fig. 5.3 The bars at VI.1.17 (left) and VI.1.18, with right-and left-hand-side entrances.

example, access to doorways leading to other rooms would have been impeded if the counter was placed on the opposite side, as at VI.4.1 (Fig. 5.2; **P-37**).³⁸⁶ If Ellis is correct in his assertion regarding the preference for a right-hand-side shop entry, it raises the question of whether this arrangement would have affected a potential customer's decision to patronise a particular bar.³⁸⁷ This dilemma may have presented itself along the Via Consolare, where neighbouring bars (VI.1.17 and VI.1.18) have positioned their counters on different sides of the shop (Fig. 5.3; **P-31**, **P-32**). However, it seems unlikely that the bar at VI.1.18 was less attractive, if superstition had such a strong effect, then it is doubtful whether the proprietor would have opted for an arrangement guaranteed to have a detrimental effect on the business.

One-quarter (6) of the counters in this sample have stepped-shelves built into their design and 9 (38%) have 2, 3, or 5 embedded *dolia*. Just one counter, at VI.10.1 (**P-42**), has both features. However, the inclusion of stepped shelves and/or *dolia* is not linked to retail unit or counter size as these extra features are found across

³⁸⁵ Ellis, "Pes Dexter," 166ff.

³⁸⁶ VI.1.2, VI.4.1 and VI.4.3.

³⁸⁷ See pp.75-76.



Fig. 5.4 Counter at IX.7.13 Pompeii with a type 1 hearth.

the range. It therefore seems more likely that the presence of these features is linked to the nature of the business.

Hearths

For small establishments, the choice of which type of hearth to install would have been a key factor in determining how the bar ran. In this quartile, half of



Fig. 5.5 A tight squeeze around the type 2 hearth at II.8.3 Pompeii.

the bars opted for an attached hearth. Of the seven counters where it is possible to identify the orientation of the hearth's working area, four are of the type 1 design, and accessed from within the counter space (Fig. 5.4). Another three are of the type 2 design, which in a small room may have been a less-than-perfect solution. For example, in II.8.3 Pompeii, staff working at the hearth would have blocked other staff members from entering or leaving the service area (Fig. 5.5; **P-22**). Using the same footprint but deploying a type 1 design would have avoided this problem. However, the choice of type 2 may suggest that staff had specific tasks that meant mobility was less important. For example, one person might be stationed behind the counter, a cook at the hearth and separate staff to deliver food and drink to customers. Blocking may also have been caused when

³⁸⁸ DeFelice, *Roman Hospitality*, 219–20. Ellis, "The Pompeian Bar," 312–13; Eschebach and Müller-Trollius, *Gebäudeverzeichnis Und Stadtplan*, 96; *NSc* 1958, 132–33; 175–77; *PPM* III, 316–19.



Fig. 5.6 The bar at Herculaneum V.6 invested in two hearths. a, Attached to the counter and b, at the rear of the room.

the type 2 hearths were in use at I.10.2 (**P-13**) and VI.1.2 (**P-29**) Pompeii, depending on whether the rooms directly behind the counter were accessed by customers or staff.

The other 50% (12) of bars in this quartile had independent hearths (the bar at V.6 at Herculaneum has two hearths (Fig. 5.6; H-04)), six of which were located in the main bar room while the remaining six were in an adjoining room. Although locating the hearth in a different room from the main bar room seems expedient as it frees up valuable customer space, it would have meant that staff would need to leave the main service area to access it. This problem was mitigated, to some extent, in five of the six examples by placing the hearth in the room just behind the bar room, but at VI.3.24 (P-36) Pompeii, servers would have had to cross the main customer area into another room to collect heated water or hot food. For the six bars that had separate hearths in the main retail space, the arrangement was, perhaps unsurprisingly, sometimes problematic in the tight space. For example, in four cases the hearth is at the front of the bar, meaning that staff moved from the inner service area of the counter to the main shop floor where they would have encroached on the customer flow. Cooking facilities placed at the front-of-shop threshold might also have led to staff working at the hearth blocking some of the entrance space — VI.10.1 (P-42) is a good example of where this might have happened (Fig. 5.9c). On the plus side, locating the hearth at the front of shop would have helped to expel smoke and fumes, and sent food aromas wafting along the street to act as an advertisement for the cook's culinary skills.

³⁸⁹ Cooking in the doorway of houses and workshops, see Foss, "Kitchens and dining rooms, 70; Verg. *Ecl.* 7.49-50.

Exits and entrances

The size and placement of the fixtures and fittings are important factors in the design of the bar as they can shape how the space is accessed. For example, when the counter is placed at the front of the shop, its width dictates the amount of space left for customer flow in and out of the establishment.

This raises two questions, first, was there a fixed ratio for determining the size of the customer entrance versus counter width (Fig. 5.7) and second,



Fig. 5.7 Entrance and shop width measurement example.

was there a correlation between increasing bar size and the width of the shop front? To try to answer these questions, I will examine the bars at Pompeii, as this site provides the largest sample for analysis.

In quartile 1, the total widths of the shop fronts range from 1.57m to 3.33m with the narrowest frontage corresponding to the smallest bar (II.8.3; **P-22**) and the widest to one of the larger bars (VII.6.20; **P-57**, 5th from largest). This suggests that there was a correlation between shop size and shop frontage width. In this sample, the ratio between counter width and bar entrance space is mostly 1:1 (14 bars, 74%), with the remaining examples at 2:1, (5 bars, 26%). The width of the customer entrances range from 0.74m to 1.49m, with the narrowest entrance paired with the smallest bar. However, the widest customer entrance is found at one of the smaller bars in the quartile (IX.7.13; **P-74**), 7th smallest, ratio 1:1). In most cases (13 bars, 68%), the entrance space does not dip below 1m, which suggests that this was considered an optimum entrance width for this size bar.

Customer and service-space zones

Although size and positioning of fixtures are important factors in the functioning of the bar, so too is the free space left over that was used by customers and staff. Optimisation of circulation space may have played second fiddle to the installation of fixtures and fittings, but it has a key role in contributing to the overall working and leisure environment of the bar.³⁹⁰ Plotting customer space against service space for the bars in this quartile (Fig. 5.8) reveals a moderate-to-strong, negative correlation between the two areas: when the

³⁹⁰ See p.42 for the calculation of the division of space.

service area is small, the customer area tends to be larger, whereas when the service area is large, customer space is smaller.

Customer/staff routes

The way in which customers and staff might have moved around the main bar room — and where their respective routes might have overlapped — is largely dictated by the position of fixtures, fittings and doorways. In this quartile there are four main layout scenarios (Fig. 5.9). In the first two, hearths

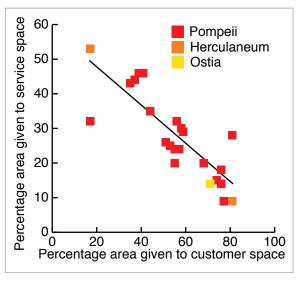
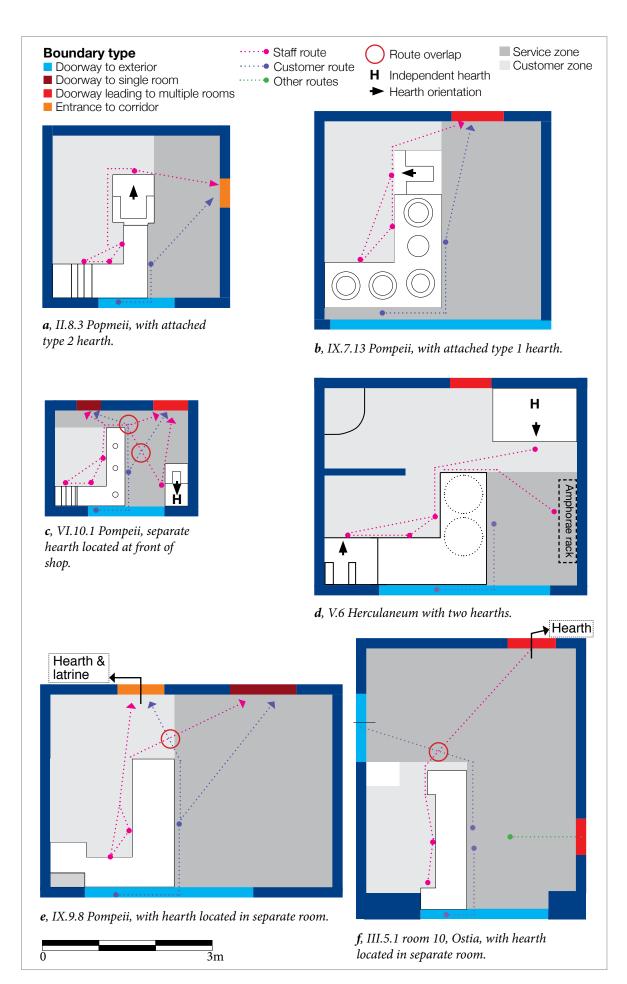


Fig. 5.8 Division of customer and service area floor space in quartile 1.

of either type 1 or type 2 are attached to the counter, such as at II.8.3 (Fig. 5.9a; **P-22**) and IX.7.13 (Fig. 5.9b; **P-74**), and the layout affords a good working triangle with distinct service and customer areas. There is a possibility that staff and customer routes would cross at the doorways to the connecting rooms, but there is a minimal amount of intersection and these layouts provide a streamlined and efficient retail space.

The other two layouts, which feature separate hearths either within the bar room (Fig. 5.9c, d) or in an adjoining room (Fig. 5.9e, f), were potentially less streamlined. The position of the hearth at the entrance of VI.10.1 Pompeii (Fig. 5.9c; P-42) clearly has the potential to cause congestion when staff were preparing food. Additionally, overlap of routes may have occurred when accessing the back rooms, and could have become chaotic at peak service times. In contrast, at V.6 Herculaneum (Fig. 5.9d; H-04), the positioning of the two hearths allows for well demarcated service and customer areas. As space is particularly tight in this bar, placement options for fixtures and fittings would have been limited, and we can only image how the smoky fumes from two cooking areas impacted this small shop. Where independent hearths were installed in separate rooms, circulation patterns may still have proved problematic. At IX.9.8 Pompeii (Fig. 5.9e; P-76), there is the potential for route overlap in accessing the rear rooms as the hearth and latrine were in the corridor behind the counter. At III.5.1 Ostia (Fig. 5.9f; O-08) we see further potential for route overlap with the need for staff to cross the customer area to access the hearth. Overall, though, with few route options, these small bars have a well-defined division of space and paths with little crossover.

The layouts examined in this quartile illustrate that when space was at a premium, choices could be limited. Although there is a 50/50 split between the types of cooking facility, nine of the attached hearths are in the 12



 $\textbf{\it Fig. 5.9} \ \textit{Division of customer and staff space and potential traffic routes in quartile 1}.$

smallest bars, while the larger 12 bars favoured an independent hearth. Clearly, for a smaller establishment, having the hearth attached to the counter maximizes the customer space and makes the service more efficient. But it would seem that if there was an opportunity to move the hearth away from the main serving area, the bar owners did so, thereby creating a potentially less-efficient workspace. The preference for an independent hearth might have been due to size, as they tended to be larger and so could handle a greater capacity of cooking pots. Alternatively, it might simply have been an attempt to move a significant heat source farther away from the counter.

Decoration

The decoration of the bars — interior walls and especially the counters — set the tone of the establishment, playing a central role in attracting a particular demographic.³⁹¹ Some proprietors clearly made more of an effort than others. Most of the counters in this quartile for which decoration is recorded were plastered 14 (58%), of these, five were painted red, and a further four were decorated with images. The counter at I.10.2 Pompeii (P-13), for example, was painted with depictions of plants, and at I.6.5 Pompeii (P-07) the counter front had an image of a glass jug filled a quarter of the way with red wine — a fitting image for a bar.³⁹² The bar at VI.1.2 Pompeii (P-29) sought to attract customers with its counter decoration of imitation marble and theatre masks.³⁹³ Such themes mirror those chosen to adorn the walls of elite houses.³⁹⁴ Masks also feature on the street fountains of Pompeii, suggesting overall that such decoration would chime well with prospective patrons.³⁹⁵ The counter at VI.16.33 Pompeii was decorated with an image of an erect phallus flanked by two men masturbating (Fig. 5.10; P-46).³⁹⁶ This is presumably a variation of the priapic iconography, ubiquitous throughout the Roman world.³⁹⁷ Counter fronts decorated with marble are less common, with just 4 (17%) in

³⁹¹ Decoration, see Ellis, "The Pompeian Bar," 80–82; Kleberg *Hôtels, Restaurants et Cabarets*, 116–17; E. W. Leach, *The Social Life of Painting in Ancient Rome and on the Bay of Naples* (Cambridge: CUP, 2004), 255–62; Mac Mahon, "The Taberna Counters," 74; Packer, "Inns at Pompeii," 45–7; for shops generally, see Wallace-Hadrill, *Houses and Society*, 155–57; for counters, Ellis, *Roman Retail Revolution*, 58–60; Mac Mahon, "The Taberna Counters," 72–75.

³⁹² Ellis, "The Pompeian Bar," 267, 246; NSc 1934, 272.

³⁹³ Ellis, "The Pompeian Bar," 342. A drawing of the counter, can be seen in W. Hamilton, *Account of the Discoveries at Pompeii* (London: Bowyer and Nichols, 1777), 13, Plate IX.

³⁹⁴ At Pompeii for example, I.10.4, in the atrium; VI.12.2, mosaic at the threshold of the atrium; VI.17.41, in a *cubiculum*. At Herculaneum, IV.21, in the *triclinium*; Ins. Or. II.1–2.

³⁹⁵ For example, outside I.4.15 on Via Stabiana, at VII.11.5 on Vicolo della Maschera.

³⁹⁶ Ellis, "The Pompeian Bar," 385; PPM V, 960-73.

³⁹⁷ Priapic iconography, see Clarke, *Looking at Lovemaking*, 48–49; P. Stewart, "Fine Art and Coarse Art: the Image of Roman Priapus," *Art History* 20, no. 4, (December 1997): 575–88, https://doi.org/10.1111/1467-8365.00082; J. Huskinson, ed., *Experiencing Rome: Culture, Identity and Power in the Roman Empire* (London: Routledge, 2000), 170–2; Deiss, *Herculaneum*, 38.

this quartile. Proprietors of two of these, located on the Via di Mercurio in Pompeii (VI.10.1, **P-42** and VI.10.3, **P-43**), may well have tried to out do each other in the decorative stakes, as they both chose the more prestigious marble cladding.³⁹⁸

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f the *Fig.* **5.10** *Counter decoration at VI.16.33, Pompeii (image: after PPM V, 960–973).*

As for wall decoration, most of the bar rooms are painted simply, often

with white panels and a coloured border (Fig. 5.11). Red often dominates as an accent colour over a base of white (Fig. 5.12). As Wallace-Hadrill points out, for the Romans, colours fell into a rank order in proportion to availability and expense.³⁹⁹ When devising a colour scheme for a house, a plain white ground was the most economical. Yellow, ochre and red were used for the background colour in the better rooms. Blue and black were reserved for the grandest rooms.⁴⁰⁰ It is also worth noting that although red was an extremely expensive pigment (based on minium (red lead) imported from Armenia), there was also a poor man's version, which was achieved by giving yellow walls a red wash, making it an affordable choice.⁴⁰¹ White, yellow and red are



Fig. 5.11 Wall decoration at VI.16.33 Pompeii.

³⁹⁸ Fant, Russell, and Barker, "Marble Use and Reuse," 193; Ellis, "The Pompeian Bar," 371, 369.

³⁹⁹ For the prices of pigments, see Plin. HN. 35.29-50.

⁴⁰⁰ Wallace-Hadrill, Houses and Society, 31.

⁴⁰¹ Andrew Wallace-Hadrill, quoted from "Pompeii shows its true colours," written by C. Higgins, accessed March 3, 2018, https://www.theguardian.com/science/2011/sep/22/pompeii-red-yellow.

often found in the bars, suggesting that commercial establishments attempted to emulate the decoration of elite houses to attract custom.

Three bars in this quartile have images as part of the wall decoration. At IX.9.8 Pompeii (P-76), an image of a gladiator was painted on the wall behind the counter. Considering the popularity of gladiators — their images are found widely depicted in frescos, sculpture, mosaics and graffiti — the proprietor obviously hoped to appeal to all walks of life. Unlike its lost priapic counter scene, the bar at VI.16.32-33 Pompeii (P-46) still retains much of its wall decoration (Fig. 5.11). The priapic theme is also part of the decoration at the bar at IV.17 Herculaneum (H-03). Wallace-Hadrill notes that it

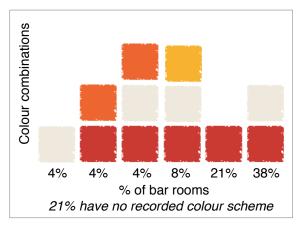


Fig. 5.12 Colour palette for wall decoration in quartile



Fig. 5.13 Detail from wall decoration at III.5.1 Ostia.

is a fairly crude phallic scene of a type and style that would not normally be found in a domestic situation.⁴⁰⁴ Although this sort of image seems inappropriate to modern eyes, Priapus was thought to protect against the evil eye and to grant fertility, so would have been seen in a positive light by all classes.⁴⁰⁵

At Ostia, the bar at III.5.1(**O-08**) has a more detailed painting (Fig. 5.13), which is dated to the Antonine period. It includes an *aedicula* with what may be an urn and various male figures in either togas or tunics, and on the right a balcony with another figure (a hand is visible).⁴⁰⁶ As the image is rather fragmented, it is difficult to interpret. However, it seems that this room was not used as a bar until a later date, so the painting was not aimed at its clientele.⁴⁰⁷

⁴⁰² Ellis, "The Pompeian Bar," 504; NSc 1989, 126.

⁴⁰³ Ellis, "The Pompeian Bar," 386.

⁴⁰⁴ Wallace-Hadrill, *Houses and Society*, 155. For a description of the image, see Maiuri, *Herculaneum* (1956), 58.

⁴⁰⁵ J. H. Elliott, *Beware the Evil Eye: The Evil Eye in the Bible and the Ancient World. Volume 2: Greece and Rome* (Cambridge: James Clarke, 2016), 167. See also J. R. Clarke, *Looking at Laughter: Humor, Power, and Transgression in Roman Visual Culture, 100 B.C.-A.D. 250* (Berkeley; London: University of California Press, 2007),185, for a discussion of the Priapic theme generally, see 184–89.

⁴⁰⁶ For a discussion of the image, see B. M. Felletti Maj, *Le Pitture Delle Case Delle Volte Dipinte e Delle Pareti Gialle*, Monumenti Della Pittura Antica Scoperti in Italia, fasc. 1-2 (Roma: Ist. poligrafico dello Stato, Libreria, 1961); Hermansen, *Ostia*, 151–57.

⁴⁰⁷ Hermansen, Ostia, 156-57.

Religious life was also often part of the bars' make-up and it is not unusual to find *lararia* in these retail spaces. Such features would have resonated with many patrons who, even if poor, would have had access to some form of shrine. In this quartile, however, just three *lararia* are found in the main bar rooms — at Pompeii I.2.8, **P-01**, VI.4.3, **P-38** and VI.3.24,

P-36 (Fig. 5.14). 409 Two are found within the



Fig. 5.14 Bar at VI.3.24 in Pompeii with a lararium positioned behind the counter.

service area, behind the counter, and the third, at VI.4.3, is in the wall opposite the counter. As *lararia* are usually associated with kitchens and food preparation, this figure is perhaps low, and indeed in the subsequent quartiles there is an increase. The reason that there are so few may simply be owing to lack of preservation or recording.

Summary of quartile 1

This quartile is dominated by bars from Pompeii, with only three examples from the other two sites combined. The bars are spread throughout the cities and although there is a good number located on through routes, they do not tend to be found at intersections. At Pompeii, the reason for the low number of bars along the busy Via dell'Abbondanza is strange as these small bars are found on other roads leading in and out of town. It may be that properties along the Via dell'Abbondanza just tended to be larger, there are certainly more bars from quartiles 3 and 4 here. This may have been by design, when converting street-side rooms in houses to commercial use, owners perhaps chose larger spaces to take full advantage of the potential customer traffic from this busy main road.

⁴⁰⁸ For *lararia*, see Berry, *Complete Pompeii*, 207–08; G. K. Boyce, *Corpus of the Lararia of Pompeii*, Memoirs of the American Academy in Rome, v. 14 (Rome: American Academy in Rome, 1937); D. G. Orr, "Roman Domestic Religion: A Study of the Roman Lararia," (MA diss., University of Maryland, 1969); A. Sofroniew, *Household Gods: Private Devotion in Ancient Greece and Rome* (Los Angeles: The J. Paul Getty Museum, 2015).

⁴⁰⁹ See Boyce, *Corpus of the Lararia*, 45, no. 148, 45–46, no. 150. There may have been a *lararium* in the 'kitchen', at VI.10.1, but this has since disappeared, see Ellis, "The Pompeian Bar," 369; *BullNap I*, 1843, 70.

⁴¹⁰ For the association with kitchens and food preparation, see H. I. Flower, *The Dancing Lares and the Serpent in the Garden: Religion at the Roman Street Corner* (Princeton; Oxford: Princeton University Press, 2017), 46–52. Sofroniew, *Household Gods*, 95–96. P. W. Foss, "Watchful Lares: Roman Household Organization and the Rituals of Cooking and Dining," in *Domestic Space in the Roman World: Pompeii and Beyond*, eds R. Laurence and A. Wallace-Hadrill, *Journal of Roman Archaeology*, no. 22 (Portsmouth, RI: JRA, 1997).

As might be expected in these confined spaces, once the counter and hearth were installed there was limited circulation space and what there was tended to result in fairly rigid routes for both staff and customers. It seems likely that these smaller establishments tended to cater to those looking for a quick drink or snack as they had limited space for seating (unless they had additional rooms). This implies that the clientele may have stayed only a short while, opting to patronise a larger bar if they were looking for a more leisurely meal. These bars therefore may have relied on a fast turnover with a low per person spend.

The decoration of these outlets probably resembled the fare on offer, in that it was often rustic and simple. Indeed, most of the counters were plastered, with only a small percentage clad in marble. The walls were predominantly painted in reds, whites and oranges, sometimes interspersed with a statement piece as at Herculaneum (IV.17).

Whether visitor or inhabitant of the city, these compact bars were well placed to pick up passing trade near the theatres, baths and gates, cashing in on a different market from their larger counterparts to attract the grab-and-go crowd.

5.2 Quartile 2

The area of the main retail space in this quartile ranges from 18.52m² to 23.66m², with the mean room size increasing from 14.43m² in quartile 1 to 21.14m². Of the 25 properties included in this sample, 22 are from Pompeii and three are from Ostia.⁴¹¹ As with quartile 1, the bars at Pompeii are reasonably well spread out across the city — although once again there is a sparsity along the eastern end of the Via dell'Abbondanza and additionally along the south side of the Via Stabiana (Fig. 5.55). Compared with quartile 1, there is a large increase in the number of bars found at intersections, which rises to 12 (48%). Plus a slight increase (13, 52%) in bars that are located on through routes. In contrast, at Ostia none of the three bars is at an intersection or on a main road, although two are in close proximity to the busy forum area (Fig. 5.56).⁴¹²

Counters

As with quartile 1, L-shaped counters prove to be popular, with 21 (84%) of proprietors choosing this option. However, unlike quartile 1, we also find U-shaped counters installed in two of the larger bars. 413 Overall, the counter areas range from 0.46m^2 to 5.85m^2 , which sees the mean area rise from 2.40m^2 in quartile 1 to 3.02m^2 in quartile 2. This suggests that there was a trend towards proprietors taking full advantage of the available floor space. Indeed, Fig. 5.15 shows that as the floor space increased there was a tendency to install bigger counters, at least at the larger end of the scale. The scatter graph also suggests that there is a stronger positive correlation between room and counter size, compared with quartile 1.

The vast majority of counters in this quartile (22, 88%) are located at the 'traditional' front-of-shop position, with the remaining 3 (12%) placed slightly farther back. For example, the counter at V.1.1/32 Pompeii (**P-24**) has

⁴¹¹ The median room size for all four quartile (23.66m²) is found in this quartile.

⁴¹² For distribution patterns of shops at Ostia, see J. Delaine, "The commercial landscape of Ostia," in Mac Mahon and Price, *Roman Working Live*, 34–35.

⁴¹³ At I.3.1 (room 15), Ostia and 9.1.8, Pompeii.

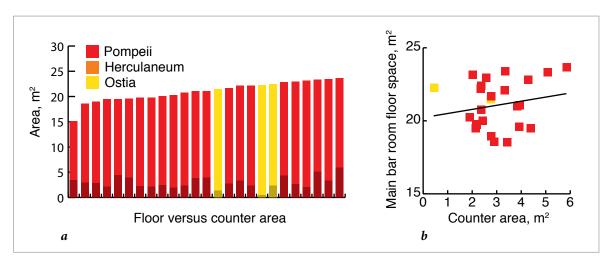


Fig. **5.15** *a*, Comparison of bar-room area and counter-footprint area (shaded) for bars in quartile 2. *b*, Correlation of counter area with floor area for each bar in quartile 2.

been positioned 90cm from the front of the threshold, meaning that customers could remove themselves from the pavement at this busy intersection (Fig. 5.16).⁴¹⁴ Interestingly, at the front of this counter a 'step' (18cm high) has been built at the eastern end, a feature that is not seen elsewhere at Pompeii.⁴¹⁵ Its function is unclear; it could have been intended as a means of elevation, perhaps for children, or to lift display merchandise off of the floor.

The small I-shaped counter at I.3.1, room 16 (**O-03**), at Ostia is placed even farther back (one third of the way into the shop) from the threshold than at V.1.1/32 Pompeii (**P-24**), leaving plenty of circulation space in front.⁴¹⁶
Another example from Ostia (IV.2.6;

O-14), has the counter placed at the back of the room. 417 However, the room in which the counter is installed does not have a shop-front location — it is buried at the rear of the property. It has been suggested that this building functioned as a hotel, and therefore the bar was for the benefit of people staying



Fig. 5.16 Bar counter at V.1.1/32 Pompeii, positioned back from the threshold with a 'step' at the front.

⁴¹⁴ Similarly, the counter at IX.1.16 (in quartile 4) is set 116cm back from the front of the shop threshold.

⁴¹⁵ Ellis, "The Pompeian Bar," 325.

⁴¹⁶ For a description of this bar, see Hermansen, *Ostia*, 129–30, for its water facilities, see Ricciardi and Scrinari, *La Civiltà Dell'acqua*, 21–22.

⁴¹⁷ For a description of this bar, see Hermansen, *Ostia*, 167–68, for the building, see Stöger, *Rethinking Ostia*, 116–23; C. Gasparri, *Le Pitture Della Caupona Del Pavone*, *Monumenti Della Pittura Antica Scoperti in Italia*, fasc. 4 (Roma: Istituto poligrafico dello Stato, Libreria, 1970), 203–06.

there (or those in the know), rather than open to all comers. 418

In this quartile we see a shift in which side of the shop the bar is entered through. Unlike quartile 1, where the majority of counters were positioned on the left (with a 'lucky' right-hand side entry), in quartile 2 just 10 (40%) of the counters were arranged like this. Of these, there is only one clear example where the left-hand position would have been necessary due to the shop's architecture — in this case two wide street entrances. The remaining nine shops appear to have had no particular restrictions on counter placement, implying that the owner chose to locate the counter on the left.

Where the counter has been placed on the

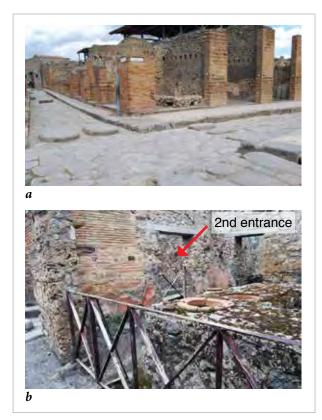


Fig. 5.17 a, VII.1.1/62 Pompeii, with its two entrances, has positioned its counter to take full advantage of the intersection. b, The two entrances into VI.14.35-36 Pompeii.

right — giving an 'unlucky' left-hand customer entrance — in six instances the position of the counter has been dictated by the architecture of the shop. ⁴²⁰ For example, three of the establishments have two entrances into the main bar room, leaving little option but for the counter to be placed on the right-hand side (Fig. 5.17). ⁴²¹ In the other three, doorways or additional rooms dictate the counter position. ⁴²² The remaining nine examples — with no obvious obstacles — seem to have chosen to locate the counter on the right. In these instances, the Roman predilection for entering a shop on the right-hand side has apparently not been a

This quartile also sees an increase in the incorporation of stepped shelves, from 6 (25%) in quartile 1 to 10 (40%). The number of counters with embedded *dolia* also rises from 9 (38%) to 14 (56%), which might be expected owing to the increased size of the counters.

concern and the counters' position may have been influenced by ambulatory traffic.

⁴¹⁸ Hermansen, *Ostia*, 168; G. Calza and G. Becatti, *Ostia*, 5th ed., Itineraries of the Museums, Galleries and Monuments in Italy, no. 1 (Rome: Istituto poligrafico dello stato, Libreria dello stato, 1965), 80.

⁴¹⁹ VII.3.1.

⁴²⁰ Ellis, "Pes Dexter," 166ff.

⁴²¹ V.1.1/32, VI.14.35-36, VII.1.1/62.

⁴²² V.4.7, VII.13.24 and VIII.2.24.

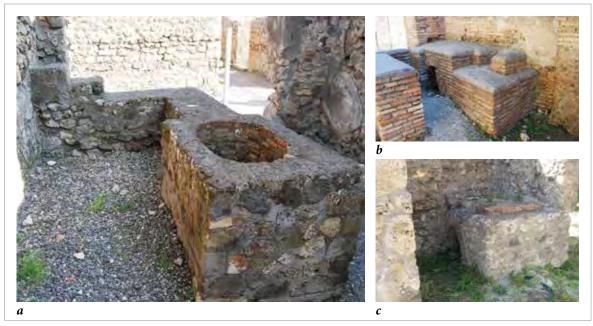


Fig. 5.18 a, Oval hearth at VI.5.12 Pompeii. b, Type 1 hearth at I.3.1, room 15, Ostia, positioned against the wall. c, Hearth at V.4.7 Pompeii built into its own enclosure at the front of the shop.

Hearths

Fifteen (60%) of the counters in quartile 2 have attached hearths. Of those with an identifiable working orientation, the majority (7, 47%) are of type 1. Of the hearths that are of type 2 (4, 27%), the increased floor space has eliminated the problems found in quartile 1, where the working area was tight and impeded a free flow of traffic around the hearth. One counter (at VI.5.12 Pompeii; **P-38**, Fig. 5.18a) has a particularly unusual oval hearth design, as it could potentially be accessed from all sides, this makes for a very innovative and flexible design. Also unusual is the hearth at I.3.1, room 15, in Ostia (**O-02**, Fig. 5.18b), which is positioned on the counter arm that butts up to the wall (instead of the arm that projects into the central floor space). Of the remaining bars with independent hearths (10, 40%), seven of these are located in the bar room, four of which are positioned at the potentially inconvenient front of shop (Fig. 5.18c).⁴²³

Exits and entrances

In this quartile, the shop frontage widths at Pompeii range from 2.59m (1.57m in quartile 1) to 4.65m (3.33m in quartile 1). This is a fair increase from the previous quartile, suggesting a correlation between the increasing shop size and frontage width. Although the widest frontage is found at one of the larger bars (I.8.1; **P-09**, 7th largest) the smallest shop frontage is actually at one of the middling sized bars (VI.5.12; **P-38**, 10th largest). The customer entrance space ranges from 0.88m to 2.47m, an increase from quartile 1.

⁴²³ The bar at IV.2.6 Ostia does not have a hearth.

The ratio of counter to entrance space shows a similar pattern to that of quartile 1 (1:1, 14 (70%) and 2:1 5 (25%), but here we also have one example of a 3:1 ratio (at V.1.1/32; **P-24**). As with the previous quartile, the narrowest customer entrance is found at one of the smaller bars (III.8.8; **P-23**, second smallest) but unlike quartile 1, the greatest width is found at one of the larger bars. (I.8.1; **P-09**, 7th largest). Although this would seem to suggest a trend, it should be noted that the largest bar (VI.2.5; **P-34**) has a relatively narrow entrance of just 1.30m (although this bar has an unusual configuration).

Customer and service-space zones

As with quartile 1, there is a moderate-to-strong, negative correlation between the service and customer areas (Fig. 5.19). However, in this quartile we begin to see how bars with a similar square footage configured the floor space to align with their businesses needs. For example, the bar at III.8.8 Pompeii (P-23) — with a floor space of 18.58m² — has a more or less equal division between service circulation space (39%) and customer space (45%). Although the small

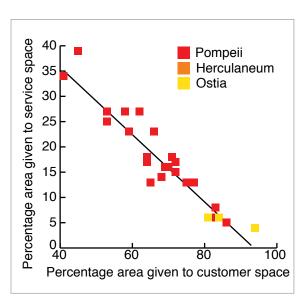


Fig. 5.19 Division of customer and service area floor space in quartile 2.

customer area would have allowed for only limited seating, the large counter could have accommodated multiple customers and a number of staff — moving about within the service area — allowing for a quick turnaround. In contrast, the bar at VII.16.7 Pompeii (P-65) — with a total floor space of 19.5m^2 — has a much smaller service area taking up just 6% of the space, limiting the number of staff behind the counter. However, the customer area takes up 83% of the room, providing ample space for seating and tables, suggesting that the focus of this bar was to get customers over the threshold for a more leisurely dining experience. These examples illustrate that analysing the usage of space can provide useful insights into the different business models employed and highlight the various decisions that were made to shape the commercial space.

Customer/staff routes

As well as the four main layout scenarios identified in quartile 1, this quartile provides some additions (Fig. 5.20). For example, the spatial layout at IX.9.1 Pompeii (**P-75**), provides perhaps one of the most efficient

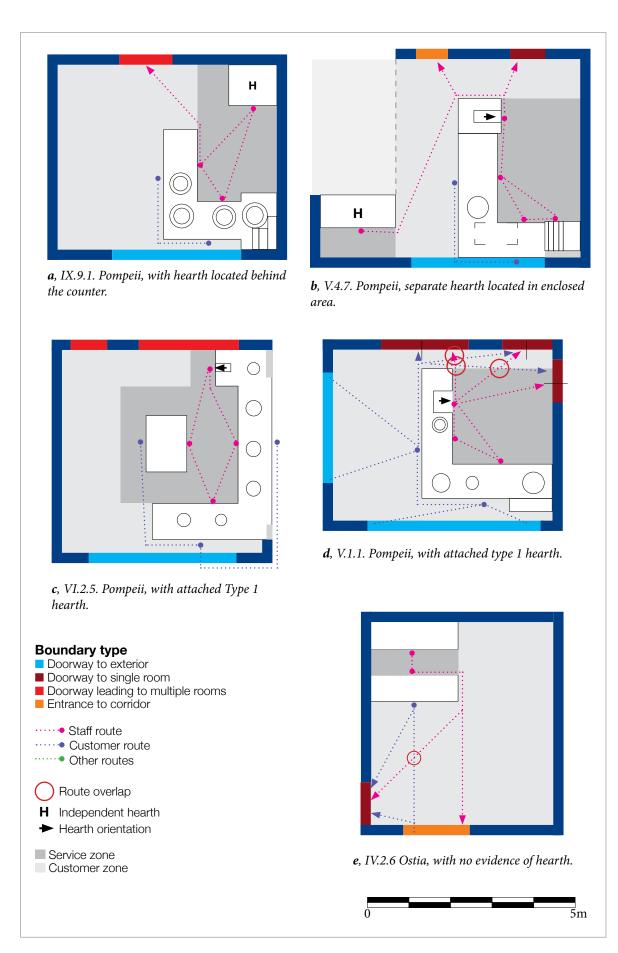


Fig. 5.20 Division of customer and staff space and potential traffic routes in quartile 2.

layouts as the independent hearth sits behind the counter, forming a good working triangle (Fig. 5.20a). We have already seen how hearths positioned at the front of the shop may impede customer flow at the entrance, however two bars implemented designs that lessened this problem. At V.4.7 Pompeii (P-28), the hearth has its own enclosure (Fig. 5.20b). This arrangement meant that smoke could be expelled effectively into the street and staff cooking food no longer blocked the entrance. With a secondary hearth attached to the counter, this bar had two distinct working areas with very little crossover of routes. The layout of the bar furniture at VI.2.5 Pompeii (P-34) has a number of distinctive design features (Fig. 5.20c). Firstly, neither of the counter arms butt up to a wall — forming an enclosed service area — as is the norm. Instead the counter is placed almost centrally in the space allowing customers to approach from all three sides. The largest arm of the counter faces into the space that was originally the corridor of this large house. This might suggest that this inner arm was the primary service area and that the intention was to drive traffic into the building. A further unusual feature is the masonry structure — constructed with two levels — that is found behind the counter. It is not clear if it was intended for customer or staff use but could perhaps have been used as an additional service or prep area.⁴²⁴

Another new element seen in this quartile are shops with two wide entrances into the main bar room. 425 Although this feature would probably have limited seating capacity, it gave easy access to the counter. In the four cases in quartile 2, rather than muddy the customer and staff routes, each is well demarcated — as at V.1.1/32 Pompeii (P-24) — providing unimpeded routes through the main space (Fig. 5.20d), although routes to additional rooms would have seen some overlap. The bar at IV.2.6 Ostia (O-14), has a very different layout from the other bars, with its counter placed at the rear of the room (Fig. 5.20e). This meant that customers had to traverse the majority of the room in order to make contact with staff at the counter. With no evidence of a hearth, routes were simplified but again it is access to the additional room that would have caused some overlap. Overall, the spatial layouts in this quartile display well designed bar rooms with a successful use of the available space.

Decoration

As with quartile 1, most of the counter fronts were plastered (15, 60%), seven have evidence of red paint, a further four featured a painted design. 426 Taking centre stage at Pompeii, the counter at III.8.8 (P-23) had

⁴²⁴ The lower level is 46cm high, the upper level is 69cm high.

⁴²⁵ V.1.1/32, VI.14.35-36, VII.1.1/62 and VII.3.1.

^{426 32%} have no recorded decoration.

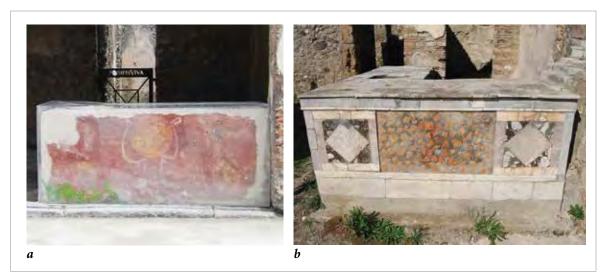


Fig. 5.21 a, Counter at I.8.1 Pompeii with its richly painted decoration. b, Finely decorated counter at V.4.7 Pompeii.

theatre masks depicting a maenad and a satyr, and at I.8.1 (**P-09**) a mask of a bearded Pan was accompanied by a Medusa's head (Fig. 5.21a).⁴²⁷ The two other examples were painted to imitate marble.⁴²⁸ In this quartile only two bar owners chose to lavish their counter fronts with 'real' marble, both of which are to be found on main through routes of the city (Fig. 5.21b).⁴²⁹

dominated by either red or red with white, painted in simple panels with borders, as in quartile 1 (Fig. 5.22). We see the addition of black at VIII.2.24 Pompeii (P-66), which, along with red, formed panels on the bar's back wall.⁴³⁰ Painted designs are recorded for 4 (16%) of the bars, these included mythological scenes,

The colour palette for the wall decoration is

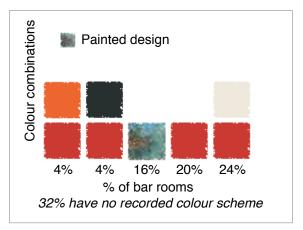


Fig. 5.22 Colour palette for wall decoration in quartile



Fig. 5.23 Well preserved wall paintings at IV.2.6 Ostia.

⁴²⁷ III.8.8: NSc 1905, 274; Ellis, "The Pompeian Bar," 319; I.8.1: Ibid., 256.

⁴²⁸ IV.2.6, Ostia: J. T. Bakker, Regio IV — Insula II — Caupona del Pavone (IV,II,6), last modified December 27, 2005, https://www.ostia-antica.org/regio4/2/2-6.htm. IX.9.1, Pompeii: Ellis, "The Pompeian Bar," 502. For painted imitation marble, see J. C. Fant, "Real and Painted (imitation) Marble at Pompeii," in Dobbins and Foss, *World of Pompeii*, 336–46.

⁴²⁹ VI.2.5 and V.4.7 for which see Fant, Russell, and Barker, "Marble Use and Reuse," 192-93.

⁴³⁰ VIII.2.24, Ellis, "The Pompeian Bar," 465.

griffins and a peacock.⁴³¹ The decoration of the bar at Ostia, IV.2.6 (**O-14**) has particularly well preserved paintings dating to the Severan period, from the time when it was a private house (Fig. 5.23).⁴³² However, most useful for the study of the Roman bars are the set of paintings found at VI.14.35-36 which depict 'tavern' scenes (see Figs 3.17a, 7.28a, c).⁴³³



Fig. 5.24 Two niches at VII.16.7 Pompeii.

The instances of *lararia* increase in this quartile,

with five of the bar rooms having this feature behind the counter. The bar at VII.16.7 Pompeii (**P-65**) has two *lararia*, one directly behind the counter above the stepped shelves and the second 2.20m farther along the same wall (Fig. 5.24).⁴³⁴ Although the *lararium* directly behind the counter would only have been accessible to staff, the second would presumably have been more openly accessible.

Summary of quartile 2

Bars in this quartile are again dominated by those at Pompeii, although this sample also includes three establishments from Ostia. Interestingly, the trend in the absence of bars on the eastern side of the city along the Via dell'Abbondanza at Pompeii continues, and although there are many bars along the southern side of the Via Stabiana, quartile 2 bars do not feature until nearing the central area of the city. There is, however, a large increase in the number of bars located at intersections (48% in contrast to 21% in quartile 1), although the instances of bars on through routes is comparable to quartile 1. L-shaped counters continue to be popular in this size of establishment but we also see some bars choosing to install U-shaped counters and I-shaped examples, typical of Ostia. In addition to the new counter shapes, the increased floor space allows for a little more flexibility in the spatial layout as the number of counters set back from the threshold increases slightly. There is, however, a drop in the number of bars with a customer entrance on the right-hand side (to 40%), which may suggest counter placement was influenced by the direction of

⁴³¹ III.8.8, Ellis, "The Pompeian Bar," 320; *NSc* 1905, 274. V.4.7. Ellis, "The Pompeian Bar," 339; for a photograph of the painting (American Academy in Rome), see www.pompeiiinpictures.com.

⁴³² Stöger, Rethinking Ostia, 118. See also Gasparri, Le Pitture Della Caupona Del Pavone; J. R. Clarke, The Houses of Roman Italy, 100 B.C.-A.D. 250: Ritual, Space, and Decoration (Berkeley: University of California Press, 1991), 342–54.

⁴³³ See Clarke, *Art in the Lives*, 134–36, 161–68; *NSc* 1876, 193–95; Packer, "Inns at Pompeii," 36; *PPM* IV, 1005–28; *PPM* V, 366–71.

⁴³⁴ At I.8.1, see Boyce, Corpus of the Lararia, 26. VII.9.22, see Ibid., 68, and IX.9.1 see Ibid., 90.

ambulatory traffic. In this quartile, cooking activities took place predominantly in the main bar room with just 8% of hearths being located in adjoining rooms. At 60%, it is the attached hearth that most proprietors chose to install.

In this quartile, we begin to see a flexibility in the division of space with bars choosing large counters and minimal circulation space or small counters to maximise the customer area. Such decisions were presumably based on the type of business model each proprietor wished to implement — a key factor that influenced the spatial layout. New to this quartile — and further shaping the configuration of space — are bars with two wide thresholds, which provide well demarcated customer and staff areas. As with the previous quartile, the majority of the counters in these bars are plastered, a further four (the same number as quartile 1) had a painted design. The wall decoration also echoes that of quartile 1. However there is an increase in the instances of *lararia*, which, like many of the counters, were simply decorated.

5.3 Quartile 3

This quartile again sees a gradual increase in the area taken up by the main retail space, as with quartile 2, this time ranging from 24.4m² to 28.77m², (with a mean of 26.40m²). In this sample, the bars of Herculaneum and Ostia become more prominent (three examples each), with the Ostian bars tending towards the larger end of the size scale. In contrast to the previous quartiles, the distribution of the bars at Pompeii is less even (Fig. 5.55). There is a notable cluster in Regio I along the Via dell'Abondanza (or in close proximity) and a pronounced absence of bars in Regios VII and VIII. A large number of bars are found at intersections (10, 42%) and 10 (42%) of the bars are located on through routes. The three bars at Ostia are also found on through routes and close to the Porta Lauarentina, well placed to catch traffic going in and out of the city (Fig. 5.56). At Herculaneum, two of the bars are found on the main street that heads towards the forum, while the third (at Ins. Or. II.6; H-5) is at an intersection on Cardo III (Fig. 5.57).

Counters

The increase in retail space is accompanied by a significant rise in the number of U-shaped counters that have been installed. Although the L-shaped design is still prevalent (15, 63%), the number of U-shaped counters has risen from 2 (8%) in quartile 2 to 7 (29%). The counter area ranges from $0.50m^2$ to $7.05m^2$ (with the mean at $3.20m^2$), an increase from quartile 2 (mean $3.02m^2$). The U-shaped counters are spread fairly evenly throughout the different sized bar rooms, but perhaps surprisingly, the two largest counters are located in two of the smaller establishments. What is particularly noticeable, is that the counter sizes at Ostia remain relatively unchanged, despite the increase in floor space, highlighting a significant design difference at this site compared with the other two. Fig. 5.25 shows that a slight negative correlation between room and counter size, unlike the positive associations in quartiles 1 and 2.

Thirteen (54%) of the counters do not sit at the very front of the shop, a steep increase compared with quartiles 1 and 2 (Fig. 5.26). Some are placed only slightly back (16–34cm), allowing just enough space for

⁴³⁵ At I.9.4 Pompeii and II.6 Herculaneum.

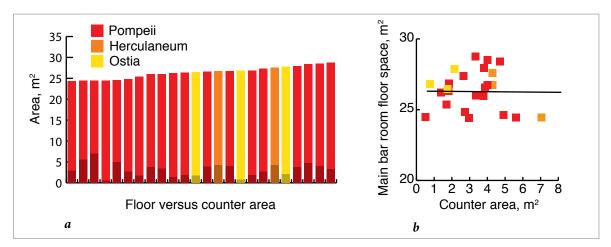


Fig. 5.25 a, Comparison of bar-room area and counter-footprint area (shaded) for bars in quartile 3. **b**, Correlation between counter area with floor area for each bar in quartile 3.

customers to leave the pavement.⁴³⁶ Another six counters are more decidedly set back (*c*.71–183cm) affording greater freedom of movement in front of the counter.⁴³⁷ Often the counter was set back to allow for either a small extension to the front arm or for stepped shelves that were built out towards the front of the shop.⁴³⁸ Despite being set back from the threshold, these counters would still have been highly visible to passersby, acting in the same way as those positioned at the very front of the threshold. One possible exception would have been the counter at I.8.15 Pompeii (set back by 183cm), which needed to be positioned back from the entrance to allow access to the workroom next door (Fig. 5.27; P-11).⁴³⁹

At I.11.16 Pompeii (**P-16**), the counter is not in a shop environment (it does not have a wide frontage) but instead is reached via a passageway. Unlike the other bars, this establishment would not have relied on passing

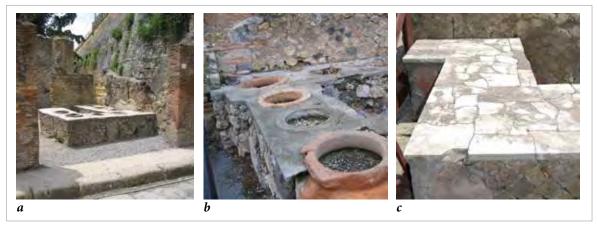


Fig. 5.26 a, Set-back counter at II.6 Herculaneum. **b**, Stepped-front counter at I.3.11 Pompeii. **c**, Small extension on the counter at Ins. Or. II.13 Herculaneum.

⁴³⁶ Pompeii: I.3.11, VI.16.40, VII.4.4. Herculaneum: Or. Ins. II.6 and II.13.

⁴³⁷ Pompeii: I.8.15, I.13.13, II.1.1, V.1.13, V.2.13. Herculaneum: II.6.

⁴³⁸ For the counter at V.1.13, which had a basin built in between the counter and the threshold, see Fig. 2.9.

⁴³⁹ The workshop contains a kiln and *mortaria* for the production of pigments, Ellis, "The Pompeian Bar," 260; Castiglione Morelli del Franco and Vitale, "L'insula 8 della Regio I," 185–221.

trade — identified as part of a hotel, this bar was for guests or those in the know. At Ostia IV.2.3, room 10 (O-13) the counter is placed at the very back of the room (Fig. 5.28). The adjoining shop behind may have been part of the bar — if it was serving both rooms that would help to explain the unusual counter position. However, the position of the counter may be linked to the two doorways (one of which is blocked-up) either side, towards the front of the shop. If the doorway was not blocked-up when the counter was installed, it would not have been practical to site the counter at the front of the shop. With its close proximity to the Porta

Laurentina, this area would have seen a high volume



Fig. 5.27 View from the back of the shop at I.8.15 Pompeii, showing the wide front threshold and to the left, the doorway to the workshop.

of passing trade. How this bar fared compared with the one a few doors down at IV.2.1, room 2 (O-11), with its more usual shop-front counter position, is a matter for speculation. The most obvious disadvantage of

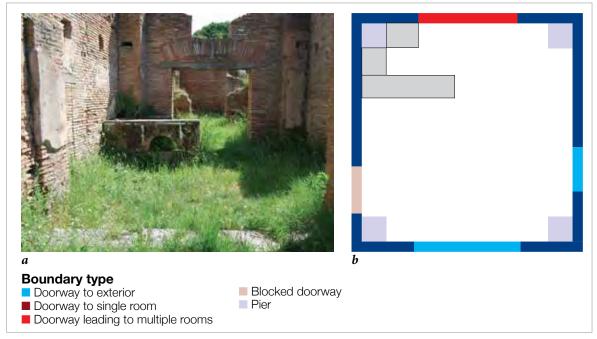


Fig. 5.28 a, Counter at IV.2.3 room 10 Ostia, positioned at the back of the room. b, Plan of IV.2.3.

⁴⁴⁰ Hermansen, Ostia, 163-64.

⁴⁴¹ For building phases, see Stöger, Rethinking Ostia, 97–98.



Fig. 5.29 Counter positioned on the left-hand side of the shop with a clear route through to the back rooms beyond, VI.2.1 Pompeii.

the counter's positioning would have been that it could not facilitate street-side service, which might have negatively affected the bar's takings. However, being less prominent to passers-by, this bar may have relied on the locals and/or word of mouth for its clientele and therefore was not subject to the vagaries of visitor trade.

Unlike in quartile 2, most counters in this sample were positioned on the left-hand side (15, 63%), giving access to the shop on the right. Of these, five seem to have had restrictions to the placement of the counter due to entrances to other rooms.⁴⁴² Another four properties may well have opted for the left-hand counter position to keep passageways clear (Fig. 5.29).⁴⁴³ The architecture of the remaining six bars does not seem to dictate a counter position, so the proprietors would have had free choice.⁴⁴⁴

Of the counters positioned on the right-hand side of the shop, with an 'unlucky' left-hand side entrance (8, 33%), three are constrained due to entrances to other rooms while one may have chosen the right-hand side position to keep through routes clear.⁴⁴⁵ Four bars appear to have had a choice as to the counter position.⁴⁴⁶

⁴⁴² Pompeii: I.11.11, I.3.11, VI.1.5, VII.1.32. Herculaneum: Ins. Or. II.6.

⁴⁴³ Pompeii: I.11.16, II.1.1, VI.2.1. Herculaneum: Ins. Or. II.13.

⁴⁴⁴ Pompeii: I.7.8, I.12.12, V.1.13, VI.16.40, VII.4.4. Ostia: IV.2.3 room 10 (the bar at IV.2.3 room 10 has no counter).

⁴⁴⁵ Architectural constraints at I.8.15 Pompeii, II.6 Herculaneum and H26, Osita. Counters positioned with passageways in mind, VII.12.15, Pompeii.

⁴⁴⁶ Pompeii: I.9.4, I.13.13, V.2.13, VI.1.18.

The reason these four bars opted for a right-hand position was presumably linked to the direction of the ambulatory traffic flow (as hypothesised by Ellis). 447 However, looking at the stretch of the Via dell'Abondanza in Regio I, where two of the bars are located, there seems to be no consensus as to which side is best to place the counter. Of the nine bars, five are on the left and the remaining four are on the right. 448

Stepped shelves have been included in the design of 9 (37%) of the counters, slightly less than the 10 (40%) in quartile 2. However, the number of counters with embedded *dolia* rises from 14 (56%) in quartile 2 to 16 (67%) in this quartile. In fact, all of the U-shaped counters incorporate 2–8 *dolia* in their make-up.

Hearths

The number of counters with attached hearths (14, 58%) is comparable to those in quartile 2.⁴⁴⁹ But unlike the previous quartile, here there is a trend towards the type 2 orientation — nine examples compared with three

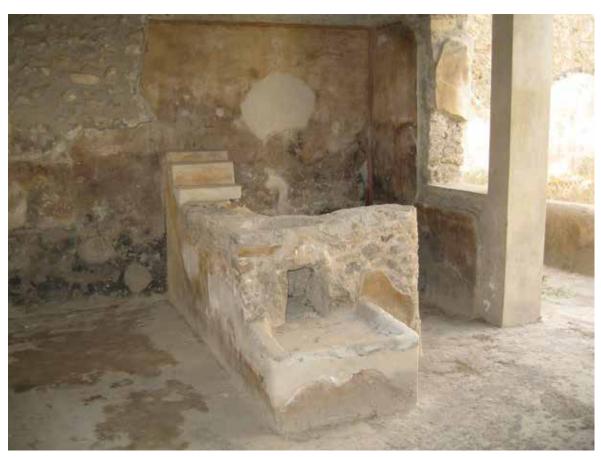


Fig. 5.30 Type 3 hearth attached to the counter at I.11.16 Pompeii. To the right is the entrance to the outdoor triclinium.

⁴⁴⁷ Ellis, "The Pompeian Bar," 135ff; Ellis, Roman Retail Revolution, 89.

⁴⁴⁸ On the left, 1.4.27, I.6.8, I.7.8, I.8.8, I.12.5. On the right, 1.8.1, I.9.4, I.11.1, 1.12.3. In this quartile, I.7.8 and I.9.4.

⁴⁴⁹ The counter at Ins. Or. II.6 Herculaneum may have had an attached hearth but is not included in this count. Monteix, *Les Lieux de Métier*, 411.

of type 1 (the most favoured in quartile 2).⁴⁵⁰ In this sample, all hearths have adequate working space.

Additionally, in this quartile we see an example of the type 3 hearth at I.11.16 Pompeii (Fig. 5.30; **P-16**). But, unlike the other examples, where the hearth is positioned at the end of the inner arm, the design at I.11.16 breaks this pattern as it sits perpendicular to the short arm of the counter attached at the corner.⁴⁵¹ From an operational point of view, as well as the obvious downside of



Fig. 5.31 Remains of the hearth at II.6-7 Herculaneum.

having to encroach into customer space to stoke the fire, the hearth's opening in the counter greatly reduces the working area. Furthermore, with this opening being so close to the server, the heat would have made for rather challenging working conditions — especially in the hotter months. The reasoning behind the hearth's odd positioning may be due to the lack of space between the end of the inner arm and the entrance to the *triclinium* — surely easily remedied by building the counter closer to the entrance.

Separate hearths have been installed in 8 (33%) of the bars is this quartile. 452 Of these, six examples can be found in the main bar room, where five have been positioned at the entrance of the shop (Fig. 5.31). 453 The hearth at I.12.12 Pompeii (P-17) has been positioned towards the back of the room and comes complete with a chimney to help expel smoke and fumes. 454 However, the figures suggest that a shop-front position was the preferred option, presumably because of the ventilation it afforded. For some bars, one hearth was not deemed sufficient for their needs. Three properties operated with two hearths and at I.11.16 Pompeii (P-16), a total of three cooking facilities were installed. 455 As well as the attached hearth, one was at the rear of the property and the third was next to the *triclinium* couch. The distribution of hearths throughout this establishment may suggest that each was used to service three different areas.

⁴⁵⁰ The orientation of the hearth at I.13.13 Pompeii is unknown.

⁴⁵¹ See also the bar at I.14.15 Pompeii (P-19) and I.9.11 (not included in this survey).

⁴⁵² The bar at VII.4.4 has an attached hearth as well as a separate hearth, as does the bar at I.11.16, but this also has a second separate hearth.

⁴⁵³ Pompeii: Entrance position, I.3.11, V.1.13, V.2.13, VII.1.32 and at I.12.12 the hearth is towards the back of the room (both V.1.13 and V.2.13 have two hearths, with one located in a separate room); Herculaneum: 2.6.

⁴⁵⁴ Ellis, "The Pompeian Bar," 284.

⁴⁵⁵ V.1.13, V.2.13 and VII.4.4 all had two cooking facilities.

Exits and entrances

The total entrance widths in this quartile range from 2.34m to 3.98m, down on the previous quartile. The narrowest frontage is again found in conjunction with one of the smaller bars (I.12.12; **P-17**, 3rd smallest), as in quartile 1 but not 2, and the largest frontage is found with one of the larger bars (VI.1.18; **P-32**, 7th largest), as in the previous quartiles. The customer entrance widths range from 1.13m to 2.28m, a decrease from quartile 2, bucking the upward trend seen so far. The ratio between counter and entrance widths also diverge from the pattern of the previous quartiles. Although the 1:1 ratio is again the most prevalent (8, 57%) we also have one (7%) example at a 1:2 ratio (at VI.1.5; **P-30**). The total shop frontage width at VI.1.5 offers the greatest customer entrance space in this quartile owing to the diminutive size of the counter, which is more akin to the smallest examples in quartile 1.456 There is no obvious reason why such a small counter was installed in this bar, but the result is that the counter does not dominate the space and there is ample room for circulation and clear paths to additional rooms.

Customer and service-space zones

In the main, the division of customer and service space in quartile 3 follows that of the two previous quartiles, with a moderate-to-strong, negative correlation (Fig. 5.32). However, it is not quite as tight, as there are a few break-out examples. The graph highlights in particular the continued trend towards smaller staff zones in Ostia — evident in quartiles 1 and 2 — compared with the other two sites.

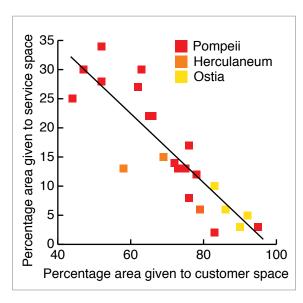


Fig. 5.32 Division of customer and service area floor space in quartile 3.

Customer and staff routes

The layout of the fixtures in this quartile provides some additional examples of staff and customer routes (Fig. 5.33, 5.34). The first, at I.12.12 Pompeii (P-17), illustrates a simple but effective working triangle

⁴⁵⁶ The counter at VI.1.5 is $1.38m^2$, in quartile 1 two of the counters at the lowest end of the scale are $1.35m^2$ (VI.16.33) and $1.35m^2$ (VIII.3.23).

(Fig. 5.33a). At a width of just 1.25m the working space of this small I-shaped counter would have required minimal movement from the server, apart from when accessing the hearth. In contrast, the bar at V.1.13 Pompeii (P-25) may have had rather complicated staff routes (Fig. 5.33b). Firstly, it had a hearth positioned at the front of the shop, which, as already noted, could cause congestion. Additionally, although the function of the basin built in front of the counter is not known, it is probable that staff would need to access it. That being the case, an additional work route might see staff moving in front of the counter. As one of the prime sites for customer service, this would surely not have been ideal.

Of the bars with hearths built into the counter, at I.8.15 Pompeii (Fig. 5.33c; P-11) we see a similar ground plan to previous examples, but here there is an additional traffic stream coming from those seeking access to

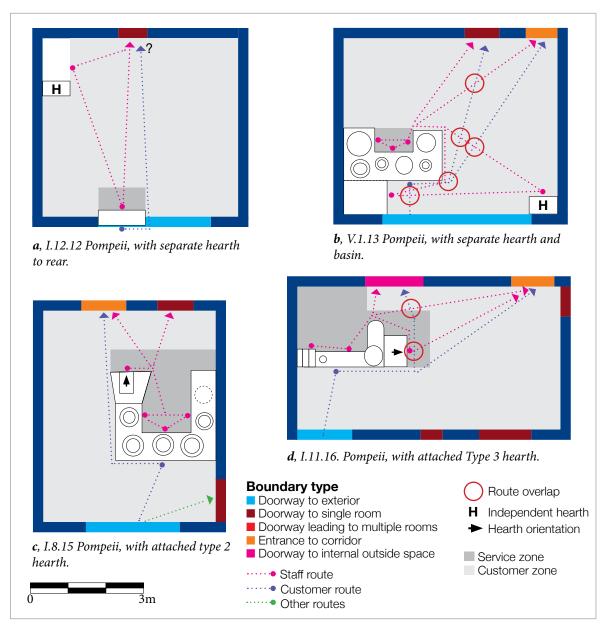


Fig. 5.33 Division of customer and staff space and potential traffic routes in quartile 3.

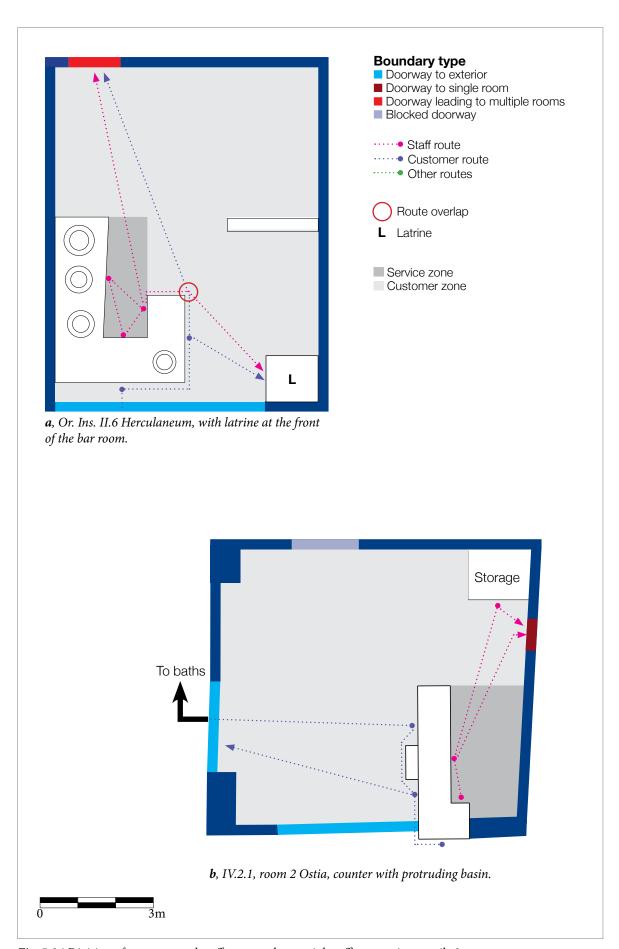


Fig. 5.34 Division of customer and staff space and potential traffic routes in quartile 3.

that the extra traffic created by the small workshop would have impacted greatly on the service area of the bar as there is ample space in front of the counter. Less streamlined is the working route at I.11.16 Pompeii (Fig. 5.33d; P-16). In this example, we can see the result of a server dealing with a type 3 hearth, where working at it meant encroaching onto customer space. Apart from the fact that the hearth's position limits customer standing space, it also has the propensity to cause route clashes as clientele and staff make their way to the outdoor *triclinium*, which is accessed directly behind the counter.

The bar at Ins. Or. II.6 Herculaneum (H-5), provides a further interesting layout example (Fig. 5.34a). In this case, a latrine was located at the very front of the main bar room, which presumably would have been accessed by customers and staff. Given the position of the latrine, it may also have been used by passers-by, making for a busy shop-front area. The layout of the bar at IV.2.1, room 2 Ostia (O-11) also has its quirks. With two main entrances (one leading from the baths and the other from the main street), customer traffic would have been multidirectional, some of which may even have taken a short cut through the bar to get from the baths to the street or vice versa (Fig. 5.34b). For staff, access to a shelving unit and an under stairs area was uninhibited by customers, a set-up that provided for clearly demarcated areas. But what is particularly interesting about this bar is the design of the counter, which has a water basin projecting out into the customer area. This feature raises questions as to the extent to which counters were 'used' by customers as a surface from which to consume their purchases.

The majority of access routes in this quartile are clearly defined with little crossing of paths. The bar at V.1.13 Pompeii however, displays a poor layout resulting in potentially chaotic working practices, particularly for the service staff.

Decoration

Of the 17 (71%) counters that have extant or recorded front decoration, 13 of these are plastered. Five have traces of red paint, while another two combine red with white or yellow.⁴⁵⁸ In this quartile, just one counter is recorded as having a design, where the front arm was painted to imitate marble, and the inner arm featured images of birds and plants.⁴⁵⁹ Four examples have marble front arms, the counter at IV.2.1, room 2 at Ostia (O-

⁴⁵⁷ Hobson, Latrinae et Foricae, 55.

⁴⁵⁸ Red paint, Pompeii: I.3.11, I.7.8, VI.2.1, VII.4.4, VI.16.40; Red and white at Ins. Or. II.13 Herculaneum (the paint is still visible); red and yellow at I.11.16 Pompeii. Ellis, "The Pompeian Bar," 235, 250, 350, 387, 276

⁴⁵⁹ II.1.1, Pompeii; Ellis, "The Pompeian Bar," 297; NSc 1917, 249-50

11) is a nice example (Fig. 5.35), while the counter at V.1.13 Pompeii was additionally decorated with a marble relief of a bearded Dionysus.⁴⁶⁰

The colour palette for the wall decoration is once again dominated by the red, and a red and white combination (Fig. 5.36). Of particular interest is the wall painting at I.8.15 Pompeii (P-11), one of the few bars to have a painted scene (Fig. 5.37). It depicts six figures in short tunics carrying cages (perhaps for birds) suspended by sticks, approaching a figure with her arm raised in welcome. It is not entirely certain what the image represents, but as similar cages are depicted containing birds, perhaps this is a scene showing bird catchers retuning after a day's work. Whether or not this image held any significance for the bar or its customers is unclear.⁴⁶¹



Fig. 5.35 Marble-clad counter at IV.2.1 room 2 Ostia.

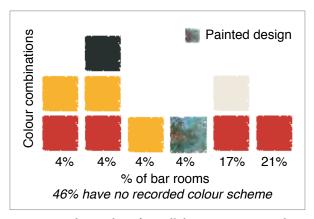


Fig. 5.36 Colour palette for wall decoration in quartile 3.

The number of *lararia* rises steeply in this quartile from 5 (20%) in quartile 2, to 8 (33%). The majority of these (6) are positioned behind the counter. Of the remaining two examples, the first was positioned on the north (back) wall of the bar at I.11.11 Pompeii (P-15). It has a stucco border with a serpent moving towards

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Fig. 5.37 Wall painting from the bar at I.8.15 Pompeii (image: Rivista di Studi Pompeiani, Vol. III, XX).

⁴⁶⁰ Pompeii: I.9.4. Ostia: IV.ii.3 room 10. For V.1.13 Pompeii, see Ellis, "The Pompeian Bar," 327; *BdI* 1877, 135.

⁴⁶¹ *PPM* I, 846, Castiglione Morelli del Franco and Vitale, "L'insula 8 della Regio I," 185–221; W. F. Jashemski and F. G. Meyer, eds., *The Natural History of Pompeii* (Cambridge: CUP, 2002), 358.



Fig. 5.38 Painted lararium at I.11.11 Pompeii.

a round altar, with green plants and red flowers in the background (Fig. 5.38).⁴⁶² A serpent (no longer visible) also features on the *lararium* painting at V.2.13 Pompeii (**P-26**), which was positioned above the hearth in the southwest corner of the bar room. This showed a *Genius* sacrificing at an altar with a Lar on either side and a serpent approaching the altar.⁴⁶³ The increase in the examples of *lararia* in this quartile might suggest a greater emphasis on food preparation — however, this number decreases in quartile 4.

Summary of quartile 3

Unlike the previous quartiles, this sample shows a strong presence of bars from all three sites, which suggests that this size of establishment was particularly representative of the bar business. At Pompeii, we see a shift in the pattern of distribution to a greater presence in the east side of the city and a near total absence in Regios VII and VIII. Although there is a slight drop in the number of bars located at intersections compared with quartile 2, this quartile sees the highest number of bars located on through routes. These data suggest that larger premises were set up along the busiest routes to accommodate the higher levels of potential customers and that proprietors applied reasoned and commercially savvy criteria when locating bars. This quartile also sees more variance in counter shape and placement owing to the larger floor space, which offered greater flexibly regarding design choices. The majority of bars allowed for a right-hand entry into the shop with counters located on the left-hand side, an increase from the previous quartile. Attached hearths also see an increase from 50% in quartile 2 to 60%. Additionally, three bars have two cooking facilities and one bar has three, suggesting a particular focus on food sales and the need for greater facilities to accommodate a larger number of guests.

⁴⁶² T. Fröhlich, Lararien- Und Fassadenbilder in Den Vesuvstädten: Untersuchungen Zur 'volkstümlichen' Pompejanischen Malerei, (Mainz: P. von Zabern, 1991), 258, L21.

⁴⁶³ Boyce, *Corpus of the Lararia*, 34, no. 92. For a discussion of the depiction of serpents on shrines at Pompeii and Herculaneum, see G. K. Boyce, "Significance of the Serpents on Pompeian House Shrines," *American Journal of Archaeology* 46, no. 1 (January–March, 1942): 13–22, https://doi.org/10.2307/499103.

There is little change regarding the extent to which staff and customer routes are expedient, with a mix of overlapping routes and more streamlined and demarcated areas. The decoration of both counters and walls generally reflects the patterns seen in the previous quartiles. However, there is a rise in the instances of *lararia* from 20% in quartile 2 to 33%. Although most of these are simply decorated, there are two more elaborately painted examples, which reflect images seen in domestic environments. Although there is no obvious reason why there is an increase in the number of *lararia*, the data suggest that as the bar room gets larger the likelihood of a *lararium* being present also increases.

5.4 Quartile 4

In this quartile, the bar room area ranges from 29.12m² to 125.81m², with a mean of 40.28m². However, this is a somewhat inflated figure owing to the vast size of the bar at III.1.10 Ostia (**O-07**) at 125.81m², the median is perhaps more representative at 33.74m². In this quartile, the bars of Ostia are particularly evident with eight examples, five of which are, again, towards the upper end of the room size. There is just one bar from Herculaneum in this size category.

At Pompeii, the distribution pattern of bars in this sample is particularly interesting (Fig. 5.55). Most obvious is a marked absence of establishments on the streets leading from the city gates (Porta Ercolano, Porta Vesuvio and Porta Stabia). There are also very few bars in Regio VI, and, as in quartile 3, there is a sparsity in Regios VII and VIII. Instead, the bars are concentrated towards the centre of the city. Just as with the previous quartile, retailers set up sizable bars in locations where they could take full advantage of a populous area. The number of bars found at intersections remains the same as the previous quartile, at 10 (42%), although the number located on through routes drops to 13 (54%). At Ostia, just three of the eight bars are located on main roads, all of which are close to the Porta Marina (Fig. 5.56). Another three are within close proximity to the forum, so well placed for a high footfall. At Herculaneum, the bar at IV.15-16 (H-02) is located at an intersection and on a main road, perfectly positioned for maximum exposure (Fig. 5.57).

Counters

For the first time, this quartile displays a far more even spread of counter shapes. Although the L-shaped counter continues in popularity with 10 (42%), the U-shaped counter comes in strongly with 7 (29%) examples. The instances of I-shaped counters is also boosted (6, 25%,) with the inclusion in this sample of eight Ostian bars (Fig. 5.39a). This sample also contains one example of a rather unusual T-shaped counter at VII.3.9 Pompeii (P-55) — the reasoning behind this design is not clear (Fig. 5.39b), but its shape and positioning within the bar create unique patterns of circulation for both customers and staff (Fig. 5.46c).

Overall, the counter areas range from 0.9m^2 to 9.25m^2 (with a mean of 3.62m^2), an increase from 3.20m^2 in the previous quartile. At Ostia, the I-shaped counters continue to take up very little floor space, even in these large bar rooms. In fact, the largest retail space at III.1.10 Ostia (**O-07**) has the smallest counter area in this

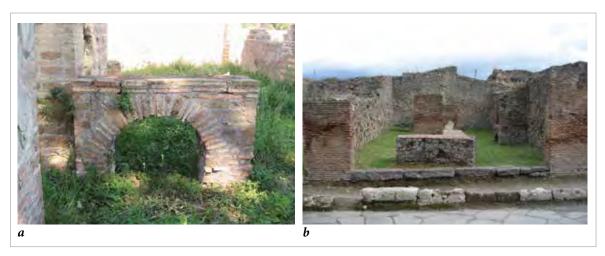


Fig. 5.39 a, I-shaped counter at III.1.10 Ostia. b, T-shaped counter at VII.3.9 Pompeii.

quartile. 464 In total contrast, the bar at VI.8.8 Pompeii (**P-40**), with its large U-shaped counter, also installed a secondary counter, which, if included in the calculations, brings the total area to 14.15m², more than doubling its work surface. Given the bar's position opposite the Forum Baths, its expectation of the amount of business it could attract seems well founded. The disparity in counter sizes at Ostia and Pompeii illustrates that although all are identified as bars, the furniture required for the businesses to function was not necessarily the same.

Although this quartile includes some of the largest counters, Fig. 5.40 shows that within the quartile itself, the counter area did not change drastically as the room size increased. In fact, the graph shows that at the higher end of the room-size scale, there is a slight decrease in the counter size. The scatter graph illustrates a slight negative correlation between room and counter size — at least at the smaller end of the scale. A small cluster of Ostian bars is particularly noticeable.

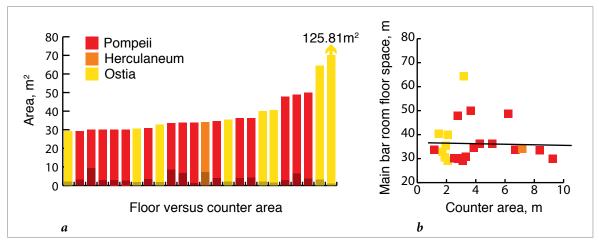


Fig. **5.40** *a*, Comparison of bar-room area and counter-footprint area (shaded) for bars in quartile 4. *b*, Correlation between counter area with floor area for each bar in quartile 4.

⁴⁶⁴ For a description of this bar, see Hermansen, Ostia, 149-51.

A reasonably high number (10, 42%) of the counters are not placed at the very front of the threshold — a trend also seen in quartile 3. Some have been set back just enough (14-37cm) to allow customers to stand more comfortably at the front of the counter and off the pavement. 465 Other layouts have, as in quartile 3, provided even more space (50-77cm) to those being served at the front of the shop.466 For example, the counter at IV.15-16 Herculaneum (H-02) is positioned 50cm back from the threshold, while the stepped shelves are built out towards the front (Fig. 5.41). A second example, at I.14.15 Pompeii (P-19), has an unusual counter design (Fig. 5.42). In essence it is an L-shape but an additional extension protrudes from the counter to the threshold. The extra 'arm' blocks off the corner of the shop providing perhaps an extra service area — at a depth of 30cm, beakers and plates could easily be accommodated on it, or the space behind could have acted as storage (perhaps for amphorae).



Fig. **5.41** Counter at IV.15-16 Herculaneum with stepped shelves built out towards the front of the shop.



Fig. 5.42 The unusually shaped counter at I.14.15 Pompeii.

One establishment, at III.1.10 Ostia (**O-07**), has its counter placed more-or-less in the middle of the room (Fig. 5.43). The layout of this bar is quite unusual. It does not have the normal wide shop frontage and on entering the bar (by the door in the east wall) the counter is off to the left, rather than being face-on to the entrance.⁴⁶⁷ The reason this spacious bar chose this less than 'traditional' arrangement is unclear.

Unlike the other quartiles, there is more of an even split regarding which side of the shop the counter has been installed, with 10 (42%) on the left-hand side and 12 (50%) on the right.⁴⁶⁸ Of those on the left, three appear to have been limited in choice owing to architectural constraints, while one may have opted for this

⁴⁶⁵ Pompeii: I.3.28, II.4.7, VI.8.9, VII.1.13, VII.3.9.

⁴⁶⁶ Pompeii: I.8.8, I.14.15, IX.1.16. Herculaneum: 4.15-16. Ostia: III.1.10.

⁴⁶⁷ According to Hermansen this doorway was the main entrance. Hermansen, Ostia, 150.

⁴⁶⁸ Eight per cent have counters placed in the middle: VII.3.9 Pompeii and III.1.10 Ostia.

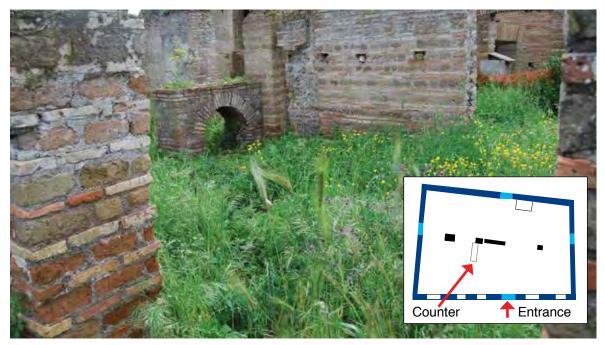


Fig. 5.43 Centrally placed counter at III.1.10 Ostia. View from the entrance in the east wall.

side of the shop to keep through routes clear.⁴⁶⁹ The remaining six properties seem to have had a free choice of counter position. Of the counters located to put the customer entrance on the 'unlucky' left-hand side, ten have architectural constraints (such as doorways leading to other rooms), while one may have been positioned with a passageway in mind.⁴⁷⁰ Just one establishment, at VI.8.9 Pompeii (**P-41**), appears to have had a free choice of counter location. This bar is opposite the Forum baths and the counter's right-hand position is perfectly placed to catch the eye of those leaving the baths.⁴⁷¹

Stepped shelves are incorporated into 7 (29%) of the counters — a drop from quartiles 2 and 3. The number of counters with embedded *dolia* is slightly down from the 16 (67%) of quartile 3 to 15 (65%). The largest counter, at I.8.8 Pompeii (**P-10**), has 13 *dolia*, the highest number found across all four quartiles, suggesting a varied offering of comestibles.

Hearths

In this sample, 11 (46%) of the counters were designed with an attached hearth. The type 2 form is slightly more prevalent — 3 (13%) compared with 1 (4%) of type 1.472 Additionally, at I.14.15 Pompeii (**P-19**), this

⁴⁶⁹ Architectural constraints at Ostia: I.2.5, II.6.5 4th shop from north, IV.7.4. At I.8.8 Pompeii, clear access to the back rooms may have determined the counter position.

⁴⁷⁰ Architectural constraints at Pompeii: I.11.1, II.4.7, V.2.19, VI.3.20, VI.8.8, VII.1.39, VII.2.32, VII.13.20, IX.1.16; At Herculaneum: IV.15-16. Passageway considerations at I.14.15 Pompeii.

⁴⁷¹ The remaining two counters in this quartile are positioned centrally, VII.3.9 at Pompeii III.1.10 Ostia.

⁴⁷² Six hearths are of an unidentified orientation.



Fig. 5.44 a, Independent hearth at VII.3.9 Pompeii. b, Remains of the hearth at IV.7.4 Ostia, located close to the shop front.

sample includes another example of the awkwardly positioned type 3 hearth encountered in quartile 3 (I.11.16 Pompeii). Separate hearths were installed in 11 (46%) of the properties (Fig. 5.44).⁴⁷³ Of these, six are located in the main bar room, three of which are positioned at the front of the shop. Of the 46% of bars with an attached hearth, three of these also have an independent hearth, which suggests that they expected a reasonably high turnover for food sales.⁴⁷⁴ The hearth at VII.1.39 Pompeii (P-51) is in a room at the very back of the property, which may not have been the most convenient location.

Exits and entrances

In quartile 4, the total entrance widths at Pompeii range from 2.34m to 5.36m, an increase on the upper range from the previous quartile. The narrowest and widest frontage are both found in conjunction with the larger bars (I.3.22; **P-03** and VI.8.9; **P-41**, 4th and 5th largest). Although the widest frontage in this sample exceeds those of the other quartiles, it is an outlier, and overall the figures resemble those in quartile 2. The customer entrance widths range from 0.89m to 2.79m. The narrowest width is less than quartile 3 (1.13m), so not an increase as might be expected. For the first time we see the gap closing between the counter and entrance space ratio as 7 (54%) have a 1:1 ratio and 6 (46%) have a 2:1 ratio.

⁴⁷³ The remaining 21% (all at Ostia) do not have hearths.

⁴⁷⁴ I.14.15, II.4.7, VII.13.20.

The narrowest customer entrance is not associated with one of the smaller bars but instead it is the median sized bar (VI.3.20; P-35). This bar has one of the largest counters in the quartile and the narrow customer entrance width may have been less of a problem owing to the wide secondary entrance of the bar. The largest customer entrance width does, however, correspond to one of the larger bars (VI.8.9, 4th largest). The bar, opposite the Forum Baths, would have been particularly busy and, as such, would have benefited from the ample circulation space.

Customer and service-space zones

As with the previous quartiles, there is a moderate-to-strong, negative correlation between the service and customer areas. When the service area is small the customer area tends to be larger; this is a particularly noticeable trend with the Ostian bars (Fig. 5.45).

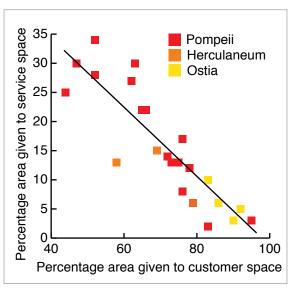


Fig. 5.45 Division of customer and service area floor space.

Customer and staff routes

This quartile has some particularly interesting spatial layouts, producing further examples of staff and customer routes (Figs 5.46, 5.47). For example, as well as the usual work routes associated with a U-shaped counter, the large secondary work space along the wall at VI.8.8 Pompeii (P-40) would have meant that staff needed to criss-cross from one side of the retail space to the other (Fig. 5.46a). This would have involved crossing paths with customers heading towards the back rooms of the bar. However, this overlap of circulation might have been reduced if a number of staff were employed and stationed at specific work stations. If the large counter and floor space are suggestive of customer and staff numbers, this main room may well have been somewhat chaotic at peak times. At I.14.15 Pompeii, additional rooms, which may have been for customer use, would have resulted in an overlapping, multidirectional traffic flow as customers and staff made their way to the various rooms (Fig. 5.46b). The position of the type 3 hearth, however, does not look like it would have added to the chaotic flow greatly as the room is amply sized.

An unusual layout at VII.3.9 Pompeii (P-55) — with its centrally positioned counter — brings new route options (Fig. 5.46c). With space either side of the counter, patrons could pass through to the back rooms

via both sides of the shop. However, taking the left-hand route might have been preferable in order to avoid bumping into staff accessing the hearth. The unusual positioning of this counter may have meant that seating could be placed either side of the bar room with the counter acting as a central service hub. Its position,

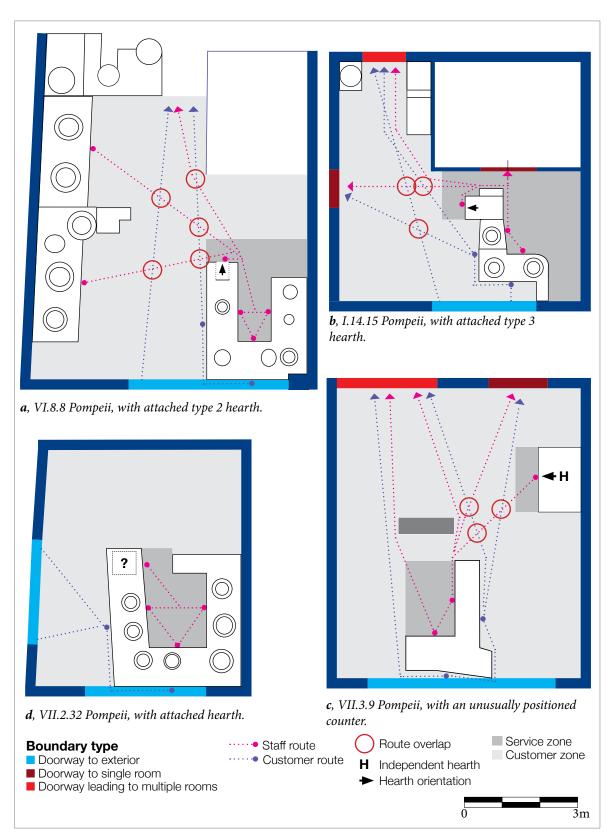
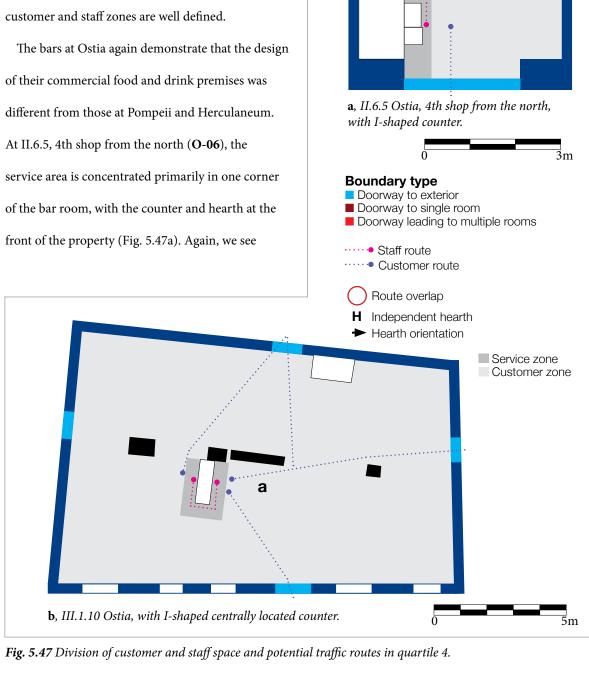


Fig. 5.46 Division of customer and staff space and potential traffic routes in quartile 4.

however, would have meant that the counter was not enclosed, which may have resulted in a blurring of staff and customer zones. In contrast with some of these potentially chaotic traffic routes, the counter installed at VII.2.32 Pompeii (P-53) is a good example of streamlined working and customer flows (Fig. 5.46d). Although its two wide entrances allow patrons to enter the premises from two directions, the almost-enclosed counter area meant that customer and staff zones are well defined.



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obstacles in front of the counter (this time an overflow basin), encroaching on access routes. In this set-up it seems unlikely that customers interacted with the service area and instead took up the ample circulation space in front. Customer and staff routes at another Ostian bar, (III.1.10; **O-07**), are far from easy to predict (Fig. 5.47b). The counter, seemingly small for such a vast space, is placed more or less centrally in the room and it is not clear on which side serving staff would have been stationed — indeed, access could have been flexible. With customers entering from three doorways (one was cut through but unfinished), the counter staff could have been surrounded on all sides by expectant customers. As this bar could have accommodated a large number of guests, it might seem more likely that table service was in operation and the counter acted as a work station for staff alone.

In this quartile we continue to see different variations of floor plans and, despite the fact that these are the largest bar rooms, access routes were not always streamlined. This is particularly the case at Pompeii, where there is much overlap of staff and customer paths — an increase from the previous quartiles. In contrast, at Ostia, the installation of the I-shaped counter positioned against a wall, created very different patterns of access that are not seen at the other two sites.

Decoration

This quartile has the highest percentage (10, 42%) of counters using marble cladding for front-arm decoration. Two of these feature a planned design (Fig. 5.48), while another, at I.2.5 in Ostia (**O-01**), uses large marble slabs. ⁴⁷⁵ Although the front of the counter at IV.15-16 Herculaneum (**H-02**) has been painted red, the outside face of the inner arm has been adorned with marble pieces. In this case, the marble decoration is intended to attract customers on the busier Cardo V. This is strong evidence that both retailers and customers viewed marble decoration as more prestigious. ⁴⁷⁶ Not only does this quartile have the highest percentage of marble-clad front counter arms, seven of these are associated with the largest counters (ranging from 3.87m² to 9.25m²). This suggests that it was the bigger establishments — presumably with a greater turnover — that could afford this more prestigious type of decoration. Another 6 (25%) of the counters were plastered and painted, the majority of which had the usual red wash. Just one example, at V.2.19 Pompeii (**P-27**), had a painted design recorded; it showed Thetis with the armour of Achilles. ⁴⁷⁷

⁴⁷⁵ I.11.1, I.8.8. See Fant, Russell, and Barker, "Marble Use and Reuse," 192-93.

⁴⁷⁶ For an overview, see Fant, "Marble real and painted," 336–46. Also Mac Mahon, "The Taberna Counters," 74–75.

⁴⁷⁷ NSc 1896, 440; 1891, 271; Ellis, "The Pompeian Bar," 333–34.



Fig. 5.48 Marble decoration on the counter at I.11.1 Pompeii.

The colour palette for wall decoration in quartile 4 follows the trend of the previous samples with the predominant use of red and white painted in simple panels with borders (Fig. 5.49). Two properties at Pompeii have their wall decoration recorded. The first, at I.3.22 (**P-03**), was painted beneath a *lararium* and depicted a seated Apollo with a lyre.⁴⁷⁸ At II.4.7 (**P-21**), beneath the red and orange panels, various plants were depicted.⁴⁷⁹ More

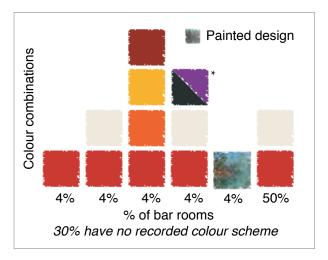


Fig. 5.49 Colour palette for the wall decoration in quartile 4.

adventurous is the decoration at I.2.5 Ostia (O-01), which, although only fragmentary, gives clues as to what customers would have experienced (Fig. 5.50). Also in this bar is a fresco depicting various food items that, according to Hermansen, represent what the establishment sold (Fig. 5.51). If so, this image provides

^{*} Paint colour is unclear, it may be black or purple.

⁴⁷⁸ Ellis, "The Pompeian Bar," 237.

⁴⁷⁹ See photo taken in 1959 by S. A. Jashemski at www.pompeiiinpictures.com.

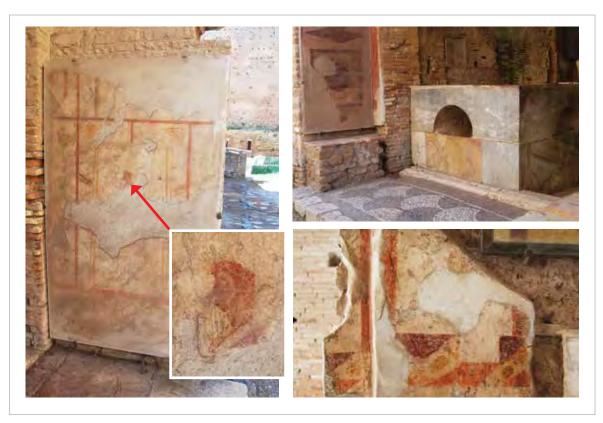


Fig. **5.50** Decoration at I.2.5 Ostia. Left and top right, the frescos that greet customers at the entrance. Bottom right, fragment of paint from the east wall.

important information not just about menu options but also the tastes and smells encountered in the bar, an aspect that will add to Chapter 7. The foodstuffs depicted have been identified as green olives, a turnip, eggs or peaches in a glass with water, and two red cheeses or water melons



Fig. 5.51 Foodstuffs depicted in the bar at I.2.5, at Ostia.

hung from a nail.⁴⁸⁰ Also of interest is the black and white mosaic at IV.7.4 Ostia (**O-15**), the most elaborate floor decoration of all of the bars in this survey. The mosaic consists of three scenes: Venus with an amoretto (Fig. 5.52a); two boxers with a palm branch and a chalice (Fig. 5.52b); and two grotesque Egyptian dancers with sticks (Fig. 5.52c).⁴⁸¹ The mosaic was laid when the bar was installed (in the late-

⁴⁸⁰ Hermansen, Ostia, 131.

⁴⁸¹ Hermansen, *Ostia*, 174. For other depictions of Venus at Ostia, see III.9.1; IIII. 7.3-4; II.7.6; III.10.2; Isola Sacra Necropolis, tomb 75. For the boxers, see Jones, "The pancratiasts," 293–98. For a discussion of similar dancers, see K. Dunbabin, "Problems in the Iconography of Roman Mime," in *Le statut de l'acteur dans l'antiquité grecque et romaine*, eds. C. Hugoniot, F. Hurlet, and S. Milanezi (Tours: Presses Universitaires François-Rabelais, 2004), 165; Z. Newby, "Roman Art as Spectacle," in *A Companion to Roman Art*, ed., B. E. Borg (Chichester: Wiley Blackwell, 2015), 558.



Fig. 5.52 Floor mosaic at IV.7.4 Ostia.

Severan period, 210–235 CE), so these decorative themes are a good guide to what was considered to chime with the bars' clientele.⁴⁸²

Lararia

Five (21%) of the bar rooms have *lararia*. The bar at I.14.15 (**P-19**) Pompeii has two, one behind the counter and one on the opposite wall, both of which are arched in form. Of particular note is the *lararium* at I.8.8 Pompeii (Fig. 5.53, **P-10**), located on the back wall, which shows the Genius performing a libation, flanked by the *Lares*, Mercury and Bacchus. Below this scene two serpents approach an altar. The remaining



Fig. 5.53 Lararium painting at I.8.8 Pompeii.

examples are positioned behind the counter and are of an arched form.⁴⁸⁵

Summary of quartile 4

Quartile 4 throws up a number of interesting trends. The first obvious difference is the high number of bars from Ostia, which highlights one of the fundamental differences of bars at this site, as they tended to be large. Furthermore, the spatial layouts of the Ostian bars are different and the space given to the counter and service

⁴⁸² C. P. Jones, "The pancratiasts Helix and Alexander on an Ostian mosaic," *Journal of Roman Archaeology* 11 (1998): 293, https://doi.org/10.1017/S1047759400017335; G. Becatti, Mosaici e Pavimenti Marmorei, Scavi Di Ostia, v. 4 (Roma: Istituto poligrafico dello Stato, Libreria delloStato, 1961), 205.

⁴⁸³ Schefold mentions a *lararium* in the bar at I.2.22, but this cannot be corroborated as it is not evident today. K. Schefold, *Die Wände Pompejis: Topographisches Verzeichnis der Bildmotive* (Berlin: W. de Gruyter, 1957), 12.

⁴⁸⁴ Fröhlich, Lararien, 252-53, L8.

⁴⁸⁵ I.3.28, I.11.1, IX.1.16. Boyce, Corpus of the Lararia, 24, no. 28; Fröhlich, Lararien, 257 (L19); Boyce, Corpus of the Lararia, 79 no. 384

area is often far less than at the other two sites. This means that customer circulation space, in particular, is generally ample. The distribution of the food and drink outlets at Pompeii to some extent reflects that seen in quartile 3, where larger bars tended to be concentrated in the more populous areas, cashing in on the high footfall. This also seems to be the case at Ostia where, if all of the bars identified by Hermansen are included, ten are located along the Decumanus Maximus coming from the Porta Marina. The high number of bars along this stretch of road provides an insight into what was perceived to be a commercially viable location for this trade. U-shaped counters are again in force, although there is a slight drop from the previous quartile mainly because of the high number of Ostian bars in this sample, which did not tend to install this shape. As with the previous quartile, a high number of counters are set back from the threshold, but the instances of the counter being positioned on the left, drops back down in line with quartile 2. Attached hearths are again the most prevalent, and, as in quartile 3, we find three bars with two cooking facilities. At Pompeii, circulation routes in this sample prove to be potentially more congested and less streamlined than in the smaller bars — mainly due to the need for access to additional rooms — although the Ostian examples continue to display relatively collision-free paths. Also noticeable is the rise in the number of counters with marble decoration, the highest of all of the quartiles. We also see some lavish decoration at two bars in Ostia, with a mosaic floor and painted wall design and a fresco. The number of lararia in this sample however, remains constant.

5.5 Analysis of the data

Having examined the spatial arrangement of the bars, it is possible to start to create a picture of what influenced design decisions and the possible thought processes involved, and thereby get an insight into how the Romans' commercial mind ticked.

Space

The size of the establishment was the first determining factor that influenced the specific characteristics of a bar and, as we have seen, the main retail space varies in size considerably across the four quartiles (Fig. 5.54). Despite this seemingly wide variance, putting the bars into the context of Wallace-Hadrill's quartiles (based on the average area for houses at Pompeii and Herculaneum) reveals that the majority (91%) fall within his quartile 1 sample, which consists of buildings with an area 10–45m² and is made up largely of shops and

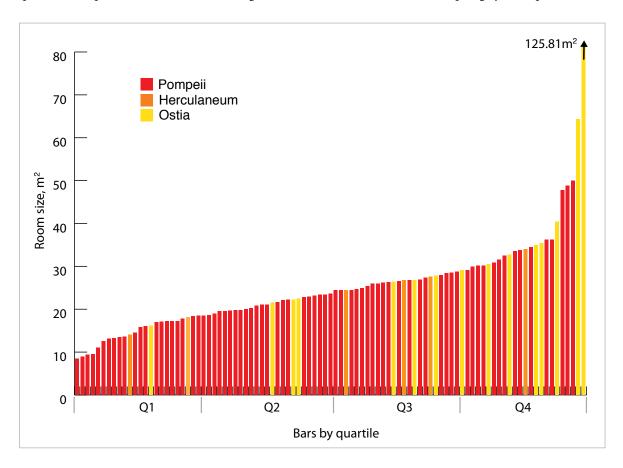


Fig. 5.54 Floor space of the bars in quartiles 1-4.

workshops.⁴⁸⁶ Four per cent of the bars in my sample fall below this threshold, and a further 5% are too large for Wallace-Hadrill's quartile 1.⁴⁸⁷ There is a particularly noticeable trend for the Ostian bars to be towards the upper end of the scale. Just over half (53%) of the Ostian bars are in my quartile 4.

Distribution

Examining the distribution patterns based on the size of the main bar room throws up some interesting results, particularly at Pompeii (Fig. 5.55). For example, the smaller bars of quartiles 1 and 2 are spread more or less evenly throughout much of the city, but there is a marked absence of them along the eastern side of the Via dell'Abbondanza, one of the city's main thoroughfares. This shortfall is, however, made up primarily with bars from quartile 3 and to a lesser extent quartile 4. This suggests that the size of the establishment chosen was commensurate with the level of traffic along its route. Indeed, the larger bars of quartile 4 are found mainly towards the central parts of the city, and this may be linked to the expectation of a higher footfall, with people making a bee-line to the forum and macellum. There is also a strong trend towards the smaller bars of quartiles 1 and 2 in Regios VII and VIII.

Patterns of distribution at Ostia and Herculaneum are less clear due to the smaller sample size. However, at Ostia the larger bars are prominent on the roads leading from the Porta Marina and Porta Laurentina (Fig. 5.56). There is also a good scattering of the remaining quartile 4 bars across the city, some of which are not positioned on a main road. At Herculaneum, we find four bars located on a primary road (Cardo V), heading towards the Decumanus Maximus, three of which are from quartiles 3 and 4 (Fig. 5.57). These bars are particularly well positioned to attract customers coming in and out of the city and have the capacity to accommodate multiple guests. The general trends across all four quartiles suggest that each had a fairly even spread of bars located on the main through routes. A number of the bars are also well positioned at intersections, particularly in quartiles 2, 3 and 4. This clearly illustrates a propensity for the larger bars to be located at prime spots to take full advantage of the busiest areas of street activity.

Securing premises at an intersection seems to have been particularly important for the Pompeian proprietors, as 45% of the bars take up this spot. These data suggest that, just as today, when choosing a site to trade as a bar, location was a key consideration. At Ostia, however, the pattern is different. Hermansen

⁴⁸⁶ Wallace-Hadrill, Houses and Society, 80-82.

⁴⁸⁷ Their size ranges are 8.49-9.50m² and 47.79-125.81m².

⁴⁸⁸ C. Ebster and M. Garaus, Store Design and Visual Merchandising: Creating Store Space That Encourages Buying (New York: Business Expert Press, 2011), 51.



Fig. 5.55 Map of Pompeii showing bars in quartiles 1-4.

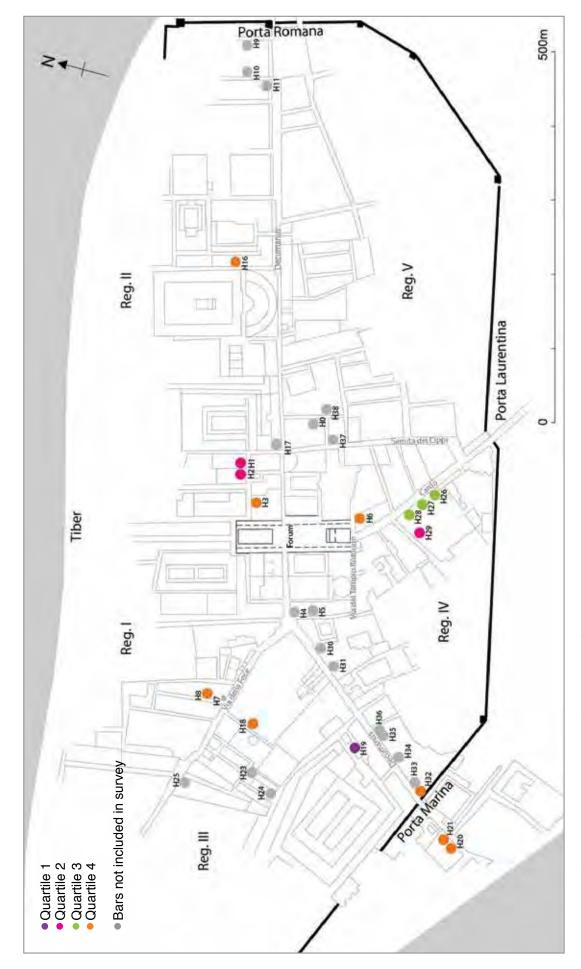


Fig. 5.56 Map of Ostia showing bars in quartiles 1-4 (map after E. Boast).

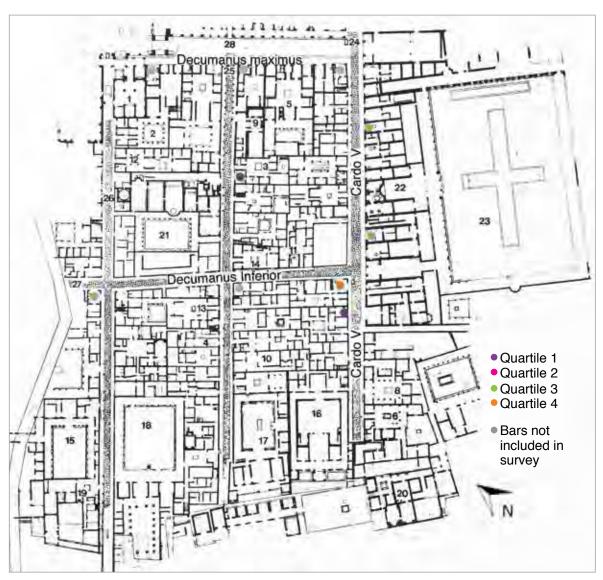


Fig. 5.57 Map of Herculaneum showing bars in quartiles 1-4.

noted that eight (21%) of the 38 bars he identified were on street corners, a figure he considered to be a high proportion, but when compared with Pompeii it seems rather low.⁴⁸⁹ However, unlike Pompeii and Herculaneum, Ostia's street network does not display such a rigid grid, and so does not offer as many opportunities for a typical intersection location.

Counters

When it came to the counter, the first step was probably to decide on the shape. The data reveal some clues as to what factors were salient. For example, there is a strong correlation between the size of the bar room and the shape of the counter. Fig. 5.58 illustrates that L-shaped counters were the most prevalent in the smaller bars of quartiles 1 and 2, but as the size of the bar room increased, there was more variety in shape. In

⁴⁸⁹ Hermansen, Ostia, 185.

quartiles 3 and 4, U-shaped counters become more prevalent and the I-shaped counters, characteristic of Ostia, increase in frequency in quartile 4, where these bars dominate. This suggests that the retailer often chose one counter shape over another based on the size of the room (at least at Pompeii and Herculaneum). As such, with just two arms, the L-shaped counter might have been perceived to take up less space and therefore be better suited to smaller establishments, whereas the U-shaped

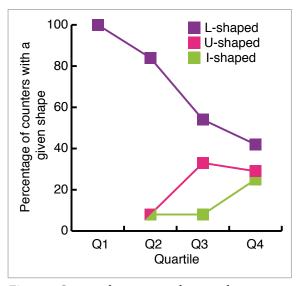


Fig. 5.58 Counter shapes across the quartiles.

design — with three arms — might be considered preferable where the retail space was greater. This type of reasoning seems logical, however, it is not quite that clear cut. For example, U-shaped counters did not necessarily equate to a greater preparation and display area — 58% of the L-shaped counters have the same surface area of those built into a U-shape. There are only six U-shaped counters larger than the largest L-shaped counter. This means that quite often a U-shaped counter with a similar area could easily have been installed in place of the L-shaped version, taking up pretty much the same footprint. The only possible downside is that the U-shaped counter might have a slightly smaller working area and so accommodate fewer serving staff.

At Ostia, it was not just a case of choosing a counter shape but also the type of counter. Twenty-eight per cent of the bars in the sample opted for an I-shaped 'counter' set against a wall, rather than a free-standing one that had service-area space. As all of these establishments had ample room to accommodate a full-blown service counter, it suggests that these bars did not function in the same way as the others and that they had a different business model. Indeed, at Pompeii and Herculaneum there was a focus on serving customers street-side, at Ostia this practice seems to have lessened. This hypothesis seems to be corroborated by the design of the L-shaped counters seen at Ostia, as the front arm is far less pronounced compared with those at Pompeii and Herculaneum.

Overall, the mean counter area is 3.07m² (Fig. 5.59). Herculaneum's counters tend towards the largest with a mean of 4.80m², Pompeii's counters have a mean of 3.15m², and the counters at Ostia take up far less space at just 1.89m². Even in quartile 4, with its more spacious rooms, a number of larger counters sit below the overall mean size, demonstrating that there was no hard and fast rule as to what size counter should be

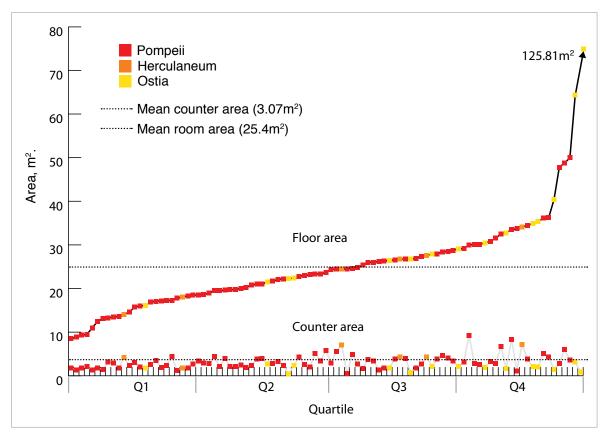


Fig. 5.59 Comparison of total floor space area and counter area across the four quartiles.

installed. Instead, such decisions were linked to available space, what goods were being sold and whether or not customer seating was required.

In the main, embedded *dolia* do not seem to have been inhibited by counter shape as 52% of the L-shaped counters have *dolia*, and all of the U-shaped counters incorporated them. The L-shaped counters have anything from one to six *dolia*, and the largest U-shaped counters could accommodate up to 13. So, the number of *dolia* was determined by the counter's area and not its shape.

The inclusion of stepped shelves is seen across all three sites, although there is only one example at Herculaneum. At Pompeii they were normally incorporated into the design of the L-shaped counters, although some of the U-shaped forms also included them. At Ostia they were generally built as larger units separate from the counter. This perhaps represents an evolution in design aimed at accommodating a greater number of beakers and plates commensurate with the larger establishments at this site. Across all three sites, whether to include stepped shelves was probably down to personal preference, as similar storage could be accomplished with shelves set into the wall, for which there is some evidence.

⁴⁹⁰ The shelves incorporated into the U-shaped counters are usually built on top of the arm that sits along the wall rather than on the front arm as in the L-shaped design. One exception to this is at VII.9.54-55 (not in my sample), where the shelves form an L-shape and are located on both the front and side arms.

Counter location

With the counter shape selected, the proprietor was faced with the 'big' question of whether to place it on the left- or right-hand side. At Pompeii, the side of the shop that was favoured for the counter varied in each quartile. However, the overall split was reasonably even with 54% on the left and 43% on the right. 491 At Herculaneum it was a straight 50/50 split. However, at Ostia 73% of the counters were positioned on the left. As noted above, one reason to choose one side of the shop over the other may have been the direction of ambulatory traffic, and this is convincingly argued by Ellis. As to whether or not the counter position may also have been influenced by superstition and the Roman predilection for the right over the left, is less clear. In the case of Pompeii and Herculaneum, the figures do not suggest that this was the case, but at Ostia, there may be more merit in this suggestion. However, Ellis argues that the reason most counters were placed on the left-hand side at Ostia may have been due to the Neronian building codes, which were introduced after the fire of 64 CE in Rome to try to curtail city-wide outbreaks of fire. 492 He suggests that an additional aim of the legislation might have been to standardise the appearance of shop fronts, which would have regulated the side the night door was on and therefore have determined the counter location — a decision he claims was influenced by the cult of the right. 493 But, although the Roman people were clearly superstitious, the evidence from Pompeii and Herculaneum does not suggest that this was a consideration when locating the counter. It therefore seems unlikely that such a superstition would be taken into account when formulating the building laws. There is clearly more to this intriguing phenomenon for which further research is required.

Examining the floor plans of the bars has made it possible to establish one key factor for counter placement: the restrictions imposed by the shop's architecture. Taking account of the number and size of entrances, and the need for clear routes to passageways and linked rooms, for example, all constrained where the counter could be placed. At Ostia, however, these issues were less of a problem as the shops were often built as independent units, and tended to have just one room.

The other consideration, when locating the counter, was whether to build it right at the front of the shop or to set it back. At Pompeii, most opted for the front-of-shop option. However, this arrangement obviously did not suit everyone's business as 22% of the counters were set back. The story is much the same at Ostia, with most counters being positioned at the front of the shop — just 27% of the counters in the sample are set

⁴⁹¹ The counters at VII.3.9 Pompeii and III.1.10 Ostia are placed in the centre (2%). The bar at IV.2.3 room 3 Ostia does not have a counter (1%).

⁴⁹² Ellis, Roman Retail Revolution, 207-11.

⁴⁹³ Ellis, "Pes Dexter," 169–71. Ellis asserts that the right-sided shop entrance became more prevalent over time, see Ellis, *Roman Retail Revolution*, 205–06.

farther back or, as in two examples, at the rear of the room.⁴⁹⁴ At Herculaneum the picture is different as 83% of counters are set back,⁴⁹⁵ making this a design trend particularly characteristic of Herculaneum. Setting the counter slightly back from the threshold would have allowed space in front for customers or merchandise (see Fig. 3.4). A further possible advantage to positioning the counters in this way may have been related to the shop-front shutters. When closed, the space in front of the counter would still have been accessible, allowing for discreet late-night drinking. Whatever the aim, the thinking behind this positioning was contrary to the majority of retailers at Pompeii.⁴⁹⁶

Hearths

Across all of the quartiles, a hearth built into the counter was the most popular option, with 54% (Fig. 5.60). This is perhaps not surprising as it was a very practical design, enabling staff to remain at the hub of the service area with all necessary facilities to hand. Although the separate hearths that were installed in many of the bars resembled those in domestic properties, the hearths attached to the end of the counter arm were specifically designed for commercial use. They could also easily be configured to specific spatial requirements, the most popular of which was the type 2 orientation (where the hearth was accessed from within the counter area). However, although overall the attached hearth was the most prevalent, this pattern changes as the size

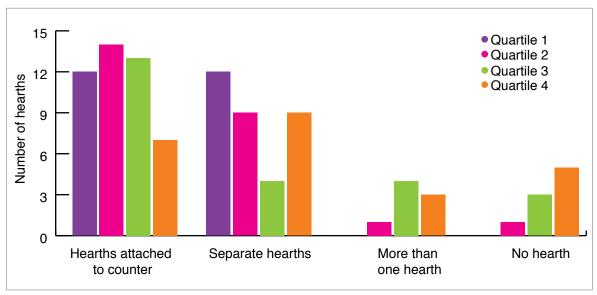


Fig. 5.60 Type of hearths found in the bars across the quartiles.

⁴⁹⁴ IV.2.3 room 10 and IV.2.6.

⁴⁹⁵ Although some counters were set back, they were still highly visible from the street. For a quite different spatial arrangement for the food and drink outlets at Dura-Europos, see Baird, "Shopping, eating, and drinking," 425.

⁴⁹⁶ See pp.93-95 for the activities of the bars when closed.

of the main bar room increases: there is a trend towards installing both an attached and separate hearth. This is perhaps not surprising as the bars in the upper quartiles would have been able to serve the greatest number of customers.

Where separate hearths were installed, the Romans quite sensibly seem to have tried to limit the amount of smoke and fumes circulating in the bar, as the hearths located in the main room were most often built at the front of the shop (65%). In those instances where the hearths were placed within the shop or in a separate room, small windows or chimneys were also often installed.⁴⁹⁷ Given the apparent desire to limit the amount of smoke in the environment, it is curious that the hearth attached to the counter was so popular, as that would quite often have generated smoke in the centre of the bar room. It is possible, however, that the two types of hearth were used for different purposes. For example, the often-smaller hearth attached to the counter could have been used primarily to heat water or one-pot meals, whereas the larger independent hearths might have been used to cook multiple food items at once. The smaller, attached hearth may have given off less smoke and fumes due to its limited cooking area, and so not have been as invasive as its larger counterpart.

Exits and entrances

An examination of shop-frontage widths suggests they got wider as the size of the main bar room increased (Fig. 5.61). However, this was not always the case, as some of the larger shops did not fully open up the frontage to the greatest width as was the practice in the smaller bars. This may have been a reasoned decision — there was perhaps an optimum entrance space — or it could just be a result of retailers working with what was already in place. An analysis of a larger sample is required to fully understand this phenomenon.

Across the four quartiles, the most common ratio of counter to customer entrance space was 1:1 (43, 65%), followed by 2:1 (21, 32%) (Fig. 5.62). However, examining the figures for each quartile separately reveals that although 1 and 2 had a majority of 1:1 ratio, as the bar size increased the gap between the 1:1 and 2:1 ratio closed. In quartile 4, the 2:1 ratio is nearly half (6, 46%). So, in the larger bars the counter space was prioritised over the entrance width. This may suggest that the sale of food and drink to customers street-side was the primary focus of many businesses and that fewer customers were expected to enter the bar, meaning a wider entrance was not necessary. Although overall there is a gradual increase in the width of the customer entrance across the four quartiles (Fig. 5.63), it does not change drastically and most bars (65%) had an entrance width of 1–1.5m. This is the case even for bars in quartile 4, where only three of the entrances exceed 1.5m. Clearly

⁴⁹⁷ I.3.28; I.12.12-13; V.1.13; VII.3.1/40; VII.9.30-31; (not in survey) VII.15.5; IX.2.25; IX.7.22.

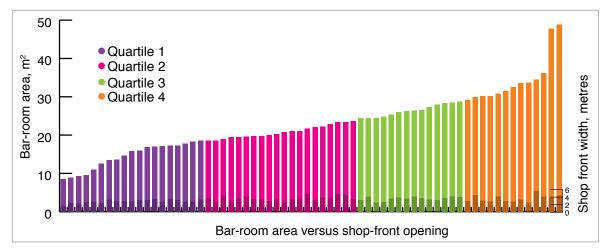


Fig. 5.61 Comparison of bar-room area and shop-front opening (shaded) for bars across the quartiles.

the width of the entrance was not linked to customer capacity and, in fact, the data suggest that having a minimum width for the customer entrance was the controlling factor in the counter/entrance space equation.

Customer and staff routes

The customer and staff routes throughout the quartiles reveal a diverse range of circulation patterns. The most streamlined are seen when the counter has an attached hearth, giving an effective working triangle for staff. This type of workstation provided well defined customer and staff zones, which limited the need to cross paths. However, routes became more complex when separate hearths were installed — especially when they were positioned at the front of the shop — and became even more complicated when staff and customers accessed connected rooms. The degree of route complexity was therefore not especially influenced by the size of the bar room, rather it was the placement of fixtures and fittings along with doorways that dictated and controlled movement around the space.

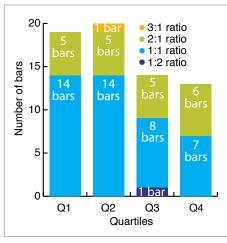


Fig. 5.62 Ratio between total shop frontage and customer entrance width.

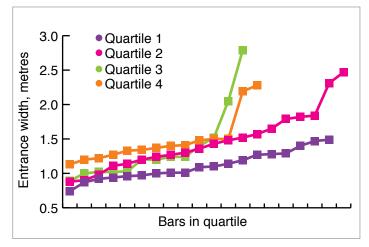


Fig. 5.63 Width of customer entrance space per quartile.

Decoration

In much the same way as we see preferences for counter shapes change with increasing bar size, the decoration found on the front of the counter also shows signs of spatial influence (Fig. 5.64). Although the smaller bars often chose painted plaster, the larger bars seem to have favoured marble for their counter fronts. Fig. 5.65 shows that most of the marble-fronted counters at Pompeii were positioned along the main roads. This pattern can also been seen in the few bars that decorated their plastered counters

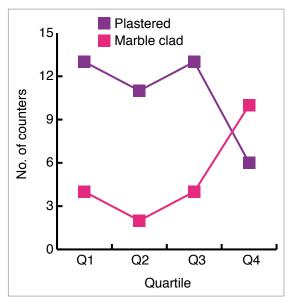


Fig. 5.64 Decoration found on counter front arms across the quartiles.

with painted designs. These findings suggest that the more elaborate counter decorations were considered to be more attractive to pull in potential customers. Furthermore, the close proximity of bars with these more elaborately decorated counter fronts potentially indicates that there was tough competition, if not rivalry, between proprietors. It seems that the counter was more often the focus of embellishment — the wall decoration in most of the bars was simple, often just white panels and red borders. Some of the bars do have more sophisticated designs, although a proportion of these seem to be a product of the room's previous incarnation as part of the house from which they have been converted. Two examples, however, do seem to have specially commissioned paintings as they reflect the activities that might take place in the bar and for a change appear to show regular people as opposed to gods, goddesses or mythical figures.

Lararia

Across the four quartiles, *lararia* are found in 22 (23%) of the main bar rooms, all of which are at Pompeii. For the vast majority (71%), a *lararium* was located behind the counter on a side wall.⁵⁰² The decoration of

⁴⁹⁸ For distribution patterns of counters with marble cladding, see Fant, Russell, and Barker, "Marble Use and Reuse," 194–98.

⁴⁹⁹ For bar counter decoration, see Ellis, *Roman Retail Revolution*, 58–62; Mac Mahon, "The Taberna Counters," 72–75.

⁵⁰⁰ For the decoration of shops, see J. R. Clarke, "Look who's laughing: Humor in tavern painting as index of class and acculturation," *Memoirs of the American Academy in Rome* 43/44 (1998/1999): 27–48, https://doi.org/10.2307/4238756; Kleberg, *Hôtels, Restaurants et Cabarets*, 116–7; Packer, "Inns at Pompeii," 45–7; Wallace-Hadrill, *Houses and Society*, 155–57.

⁵⁰¹ At VI.10.1 and VI.14.35-36 Pompeii.

⁵⁰² For the combination of lararia and shop counter, see Ellis, Roman Retail Revolution, 50, 243.



Fig. 5.65 Map of Pompeii showing bars in quartiles 1-4, denoting counter decoration.

the shrines ranges from simple washes of white to more elaborate paintings. Although there are no *lararia* in the primary retailing rooms at Herculaneum and Ostia, three examples are located in adjoining rooms. ⁵⁰³ This suggests that at these two sites it was not common practice to site a *lararium* in the main retail space, although portable altars could have been used instead. ⁵⁰⁴ *Lararia* may not be found in the main bar rooms at Ostia, but there are examples in the main rooms of some shops, although they tend to be located on the back wall, rather than a side wall as at Pompeii. ⁵⁰⁵ It is difficult to establish when and why *lararia* are included as a feature within the bars at Pompeii, but according to Foss, in domestic premises, shrines were often found where food was prepared, so we might expect the bars to follow suit. ⁵⁰⁶ Of the 76 establishments included in the survey, 68 (89%) had hearths in the main bar room, but as only 22 of these also had a *lararium*, the association highlighted by Foss does not seem to hold for bars. However, of the bar rooms with *lararia*, a high proportion of the counters (17, 77%) contained *dolia*. These findings perhaps suggest a link between the *lararia* and the *dolia* and the food they stored rather than the preparation of meals at the hearth.

Another line of enquiry to pursue in an attempt to pinpoint why *lararia* are found in some bars is to examine the context of the building. For example, as *lararia* and kitchens are a common feature of the Roman household, the presence of a *lararium* in a bar may indicate that it was part of the house (rather than being an independent shop). However, there are a number of bars connected to houses where we find a shrine in the main bar room and a second one in part of the house, which seems to indicate that each unit was religiously independent. Standard also be noted that *lararia* are present in a number of shops that lack any fixtures or fittings and for which the nature of the business is unknown — for example, at Pompeii VII.7.4, IX.1.25 and IX.2.11. These *lararia* are located on a side wall in a similar position to those behind the counter in the bars. This raises two questions for the bars: first, were the *lararia* there before the fixtures and fittings were installed, and second, if so, did the location of the *lararia* influence the decision of which side of the room to locate the counter? This is an avenue of enquiry that may prove fruitful to further aid in the understanding of the spatial layout of the bars. Whatever the case, it seems that when it comes

⁵⁰³ Herculaneum, 4.15-16, Ins. Or. II.13; Ostia IV.2.6.

⁵⁰⁴ For the use of portable altars, see Berry, *Complete Pompeii*, 207. Orr, "Roman Domestic Religion," 75, 80; Sofroniew, *Household Gods*, 31.

⁵⁰⁵ For example, Ostia, I.1.4; I.14.2; I.8.5; II.9.2.

⁵⁰⁶ Foss, "Watchful Lares, 217. For *lararia* in kitchens, see also Roberts, *Life and Death*, 250–52; Sofroniew, *Household Gods*, 95–96.

⁵⁰⁷ For example at Pompeii I.8.15, I.8.8, VII.1.38-39. The bar at VII.9.52 is not attached to a house and is a purpose built shop/bar and has a *lararium*.

⁵⁰⁸ For shops with *lararia* where the nature of the business is unknown, see Pompeii, VII.9.52, HGE 21, HE 20; Herculaneum, Ins Or. II.9, II.14, II.18: Ostia, I.1.4; I.14.2; I.8.5; II.9.2.

to commercial premises the presence of a *lararium* does not necessarily indicate that it was a site for food preparation.

Conclusion

Roman retailers juggled a number of factors when configuring the spatial layout of their bars — from architectural constraints, and the design and form of fixtures and fittings, to the division of customer and staff space. This process clearly demanded reasoned thought and consideration, and this is demonstrated in the layout of many of the bars. Once the practicalities were taken care of, aesthetic considerations were also at play, with many proprietors decorating their counters with eye-catching designs to tempt customers to stop and part with their cash, revealing a level of savvy marketing. As we have seen, the decisions made at the planning stage had a marked affect on the extent to which the space functioned in a streamlined and orderly manner. Furthermore, it shaped the experience (for better or worse) of both customers and staff. Interestingly, despite the similarities of the offerings of the bars, decisions made regarding the design and therefore the thought processes behind them often varied across the three sites. Indeed, although there is some standardisation in the design of the food and drink outlets, we also see evidence of variation and range of possibilities. This is perhaps the result of experimentation over time, as retailers come to terms with the creation of the bars as a new part of urban culture. However, the core elements that characterise a bar remained the same at all three sites and, although generally, there are subtle differences between bar design at Pompeii and Herculaneum, Ostia displays the most difference. Given the temporal gap between Pompeii/ Herculaneum and Ostia, it would seem fair to assume that this was a product of evolution and the changing shape of the food and drink businesses. What we do see is that fundamentally Roman bar design satisfied the criteria espoused by Norman at the start of the chapter (p.74), in that not only did the design of the fixtures and fittings fulfil human needs, the entire experience was shaped both aesthetically and with regards to the quality of interaction. Indeed, many elements of this design continue to shape modern bars today.

6. THE BAR ROOM IN CONTEXT

So far the focus has been on the main retail space — the bar room. However, many of the bars had connected rooms, some of which may have been used by customers. These additional rooms would have played an important part in shaping the character of the bar and as such influenced the way in which it was experienced by both customers and staff. For example, extra rooms located away from the road would lessen the noise and smells from the street and allow for greater degrees of privacy, while courtyards and gardens could provide al fresco dining. Additional rooms would also have affected circulation patterns within the establishment. Today, routes through shops and restaurants are well planned and designed to lead the customer in specific directions giving them cues via walkways and merchandising. But to what extent are these visual cues apparent in the ancient bars? Investigating these additional spaces will help to flesh out the sensory experience. This section will examine the floor plans of the establishments to consider:

- i) the arrangement of rooms in connection with the main bar room.
- ii) what each room might have been used for and if it was a customer or staff area.
- iii) how the layout of the rooms affected customer and staff routes through the space.
- iv) the level of privacy provided by customer spaces.
- v) the potential number of customers that could be accommodated.

Number of rooms

Before we start, there are a few issues that need to be highlighted. For example, the bars were often converted from rooms in residential structures.⁵¹¹ In some instances, the new retail unit was independent, but often a connecting door was retained between the commercial and domestic properties, making the boundary lines

⁵⁰⁹ Packer, "Inns at Pompeii," 37.

⁵¹⁰ Ebster and Garaus, Store Design, 5-20; Lawson, Restaurants, Clubs and Bars, 75.

⁵¹¹ Commercial units in atrium houses, see M. Flohr, "Living and Working under One Roof: Workshops in Pompeian Atrium Houses," in *Privata Luxuria: Towards an Archaeology of Intimacy: Pompeii and Beyond*, edited by A. Anguissola (Munich: Herbert Utz Verlag, 2012), 51–72.

difficult to identify.512 Although the tally of rooms for the independent retail spaces is straightforward, the number of rooms linked to a bar in the connected properties is often down to personal interpretation, for which there is not always scholarly agreement.⁵¹³ The debate over room calculations is well illustrated by the bar at I.9.4 Pompeii (P-12), which is attributed two rooms by Ellis and Wallace-Hadrill (a and b), but Calabró — who has studied the interaction between bars and houses — opts for three (Fig. 6.1). In Calabró's opinion, the room adjacent to the bar (c), connected by a doorway in the west wall, was 'probably a dining room to serve customers'.514 Similar problems can be seen in the bar at I.8.8 Pompeii (P-10; Fig. 6.2). Ellis, for example, attributes eight rooms to the bar, whereas Wallace-Hadrill describes it as a 'bar with back room', which is in line with Calabró. 515 Foss's interpretation is different again. As well as rooms a and b, he identifies two further dining areas used by the household (g and h) that might also have been available for 'special rental to customers of the diner' — although it is not clear on what evidence he bases this suggestion.⁵¹⁶ One of the reasons that Calabró asserts that the triclinium (g) was used exclusively for residential purposes is its 'sumptuous decoration'. But can it really be that clear cut? The decoration could be the result of a change from private to

commercial use. Alternatively, more sophisticated decorative schemes could

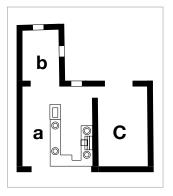


Fig. 6.1 I.9.4 Pompeii, plan.

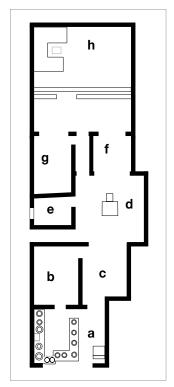


Fig. 6.2 I.8.8 Pompeii, plan.

have been intended to tempt a better class of patron or at least those who aspired to be upwardly mobile.

Room usage

Another dilemma is that even when it is possible to recognise a complete retail unit, independent from a house, there is still the problem of whether connected rooms were for customers, used for storage or as dwellings for

⁵¹² Holleran, Shopping in Ancient Rome, 47.

⁵¹³ Identifying linked rooms, see A. Calabrò, "Pompeian cauponae, in their spatial context: interaction between bars, inns and houses," in Anguissola, *Privata Luxuria*, 82–83.

⁵¹⁴ Calabrò, "Pompeian cauponae," 82–83; Ellis, "The Pompeian Bar," 262–64; Wallace-Hadrill, *Houses and Society*, 192.

⁵¹⁵ Ellis, "The Pompeian Bar," 257–60; Wallace-Hadrill, *Houses and Society*, 190; Calabrò, "Pompeian cauponae," 89.

⁵¹⁶ Foss, "Kitchens and dining rooms," 282.

⁵¹⁷ Calabrò, "Pompeian cauponae," 90.

the owner/manager. There are a number of indicators that may help to pin down a room's possible use, but they do not eliminate the guess work entirely. The presence of bed niches, for example, may point to *cubicula*, but these niches can sometimes be confused with those intended for storage. Rooms for storage may be identified by evidence of shelves, racks or finds (although these are often lacking or unrecorded). The position and size of the room may also give clues to its usage. For example, storage rooms are often designated as such when located directly behind the service counter. However, rooms positioned in this way are also identified as dining rooms for customers, and rooms of similar size are labelled simultaneously as storage or dining rooms. We perhaps need to question how necessary a storage room was for the operation of a bar, after all, 27 (28%) of these establishments had just a single room, and 15 (56%) of those are in the smallest two quartiles. Upper floors could also have provided extra storage space. For example, although amphorae were often stacked in the main retail space or littered throughout ground floor rooms, there is evidence to suggest that they were also stored on upper floors. While some bars had ample storage, others did not, which suggests that many bars, by necessity, operated on a low-capital model of wine supply, resorting to local merchants to replenish their stock when necessary.

The second point to consider is how large a room had to be for it to function as a dining room as opposed to a storage room. A passage from Plautus that talks about 'dark little nooks' for eating and drinking may suggest that additional rooms did not have to be large. With this in mind, using the dimensions of extant Roman furniture, I plotted a table and four stools onto the floor plan of the smallest back room (4.36m²), located behind a service counter that has been identified as a storage space (at I.8.15 Pompeii). This showed a comfortable fit, if a little snug, illustrating the need to keep an open mind when attributing room function. However, as a benchmark dining-room size, the back room at VI.10.1 Pompeii (P-42), which can be reasonably securely identified as a customer dining space (10.95m²), will act as a guide to evaluate the

⁵¹⁸ Ellis, "The Pompeian Bar," 64–65. For problems on identification of bed niches see Allison, *Pompeian Households*, 43–48.

⁵¹⁹ Ellis, "The Pompeian Bar," 64-65.

⁵²⁰ Ellis often identifies rooms behind the counter area as storage rooms. See, for example, Ellis, "The Pompeian Bar," 214, 243, 345, 407, 426.

⁵²¹ For example, amphorae were found stacked in the main bar room at Pompeii VII.2.32, IX.7.21-22, IX.11.2, Ellis, "The Pompeian bar," 405–06, 497, 505. Under the staircase in the bar at Pompeii I.8.1, Ellis, "The Pompeian bar," 255; Foss, "Kitchens and dining rooms," 280. Amphorae fallen from upper floors, Pompeii 1.7.13, I.8.8 (and also found throughout the property), Ellis, "The Pompeian bar," 254. Herculaneum IV.15-16, de Kind, *Houses in Herculaneum*, 162.

⁵²² For the wine trade, see J. W. Ermatinger, *The World of Ancient Rome: A Daily Life Encyclopedia* (Santa Barbara: Greenwood, 2015), 119–20; Temin, *Roman Market Economy*, 112; Meiggs, *Roman Ostia*, 283.

⁵²³ Plaut. Poen. 835.

⁵²⁴ The back room is identified as a storage rooms by Ellis, "The Pompeian Bar," 260. For this methodology, see pp.44-45.

likelihood of back rooms functioning as such. In which case, any room of a similar floor area (9 m²) or above, will be considered a 'potential' dining space while rooms between 4 m² and 8 m² will be deemed as a 'possible' consumption or storage room and below 4 m² will be designated as storage spaces. Other factors, such as the position of the room and its decoration, will also be considered when determining function. Issues of room usage are further complicated if we consider that spaces may have been multifunctional. As Nevett points out, Latin and Greek texts suggest that in both Greek and Roman societies space was seen as flexible, so back rooms in bars could have been for both customer dining and storage. Even seasonal changes may have affected how rooms were used — different weather conditions might change room temperatures, making them more comfortable at different times of the year.⁵²⁵

Along with the main counter room and a space for storage or dining, another room that may be identifiable in the bars is the latrine. The location of the latrine within an establishment might indicate which areas or rooms were passed through — if not used — to reach it, adding customer and staff routes to be mapped.

The data

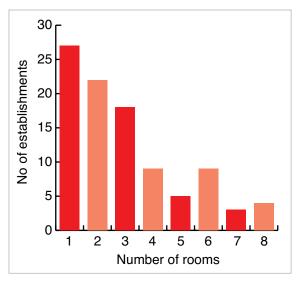
The data show that across the four quartiles most bars operated with one to three rooms (Fig. 6.3).⁵²⁶ In quartile 1, most of the bars had two rooms (9, 38%), closely followed by those with a single room (6, 25%; Fig. 6.4). It is interesting to note that these small main rooms were not supplemented by more than three rooms — this may well have been due to the constraints imposed by the buildings they were embedded in. In quartile 2, most bars were made up of just one room (9, 36%), while 12 (48%) had two or three rooms. But, as the size of the main bar room increases, the number of bars with one or two rooms drops and we see a trend in quartile 3 towards three-room bars (8, 33%). In quartile 4, the one-room bar dominates — as in quartile 2 — with a substantial 9 (38%) examples.

Looking at the data sets for each of the three sites separately reveals a fairly major disparity (Fig. 6.5). At Ostia, 11 (73%) of the bars have just one room, in contrast to 15 (20%) at Pompeii and just 1 (17%) at Herculaneum.⁵²⁷ Furthermore, just over half (8, 53%) of the 15 Ostian bars included in this survey are in quartile 4 and potentially large enough to accommodate a high number of customers. There are a number

⁵²⁵ L. C. Nevett, Domestic Space in Classical Antiquity (Cambridge: CUP, 2010), 98.

⁵²⁶ As there is much debate over the number of rooms a bar has, I have based the count on the interpretation on the work of an individual scholar for each site — Pompeii: Ellis, "The Pompeian Bar,"; Herculaneum: Monteix, *Les Lieux de Métier*; Ostia: Hermansen, *Ostia*.

⁵²⁷ For the single-room shop design, see Ellis, Roman Retail Revolution, 198–99; Girri, La Taberna, 36.



Quartile 1
Quartile 2
Quartile 3
Quartile 4
Quartile 4
Number of rooms

Fig. 6.3 Number of rooms in bars across all three sites.

Fig. 6.4 Number of rooms in bars across all three sites, split into quartiles.

of contributing factors as to why the Ostian bars had just one room. First, unlike the other two sites, where domestic residences were often converted into retail space, many of the bars at Ostia were installed into purpose-built commercial units. These retail spaces tended to be uniform in shape and size, such as those seen along the western Decumanus and Cardo Maximus. If a business required additional space it could take over an adjoining shop, as may have been the case with the bar at IV.2.2-4, room 10.⁵²⁸ It is also possible that some of the one-room bars had partitions or walls, now lost, to divide the space.⁵²⁹ The trend towards the one-room bar could also simply be down to changes in fashion, just as today airy, open-plan bars are far more in vogue than the dark, multi-roomed pubs of the past. Additionally, prejudices about people eating in public may also have lessened or were just not a concern to the Ostian patrons.

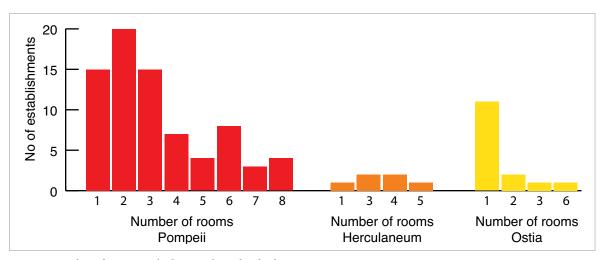


Fig. 6.5 Number of rooms in the bars at the individual sites.

⁵²⁸ Hermansen, Ostia, 163-64.

⁵²⁹ The large bar at III.1.10 has a mosaic floor with different patterns that indicate the room was originally separated into three different rooms, see Hermansen, *Ostia*, 150.

The configuration of space

It is not surprising, given the varied number of rooms and the origins of the bars' make-up, that their floor plans are equally as varied. However, patterns can be detected and these can be broken down into 3 basic types:

Type 1: The bar room gives access to an additional room or rooms behind the main bar room.

Type 2: Additional rooms are located off to the side of the main bar room.

Type 3: Rooms are located both behind the main bar room and to the side.

Based on the number of rooms, examples from each category will be selected and analysed to assess the extent to which the character and operational practices of the bars changed as the size of the establishment increased. I plotted the potential circulation routes for both customers and staff on the 70 bars with two or more rooms, highlighting any crossover points that might have hindered a smooth flow of traffic when accessing additional rooms.

Two-room bars

Type 1 layout: Most two-room bars (20 of 22, (91%)) have a type 1 layout, in which the back room is behind the main bar room. In this case, the type 1 layout can be broken down into two further categories: the first, where the rear room is narrower than the width of the main bar room, creating an L-shaped floor plan; and the second, where the rear room spans the full width of the main bar room.

Of the 11 examples with L-shaped floor plans, five have doorways giving access to the rear room located behind the counter.⁵³⁰ Of these properties, all of which are from Pompeii, four of the rear rooms are identified as storage rooms by Ellis.⁵³¹ Two examples of this layout can be seen at I.10.2 (**P-13**) and I.4.27 (**P-06**) Pompeii. Both have small rear rooms (4.98m² and 7.84m², respectively) with entrances within the service area (Fig. 6.6).⁵³² Calabrò identifies the function of the back room at I.10.2 as storage (in agreement with Ellis) but also suggests that it could have functioned as a *cubiculum*, although he does not give his reasons for either designation.⁵³³ There is little decoration left in the rear rooms of either of these bars: just traces of orange plaster at I.10.2 and

⁵³⁰ Pompeii: I.4.27, I.8.1, I.10.2, VII.6.20, IX.1.16.

⁵³¹ Ellis identifies I.4.27, I.8.1, I.10.2 and VII.6.20 as storage rooms, Ellis, "The Pompeian Bar," 243, 255, 267, 426. At VII.6.20 Ruddell identifies three back rooms for customers, Ruddell, "The Inn, Restaurant and Tavern Business," 271. This property is currently in poor condition making it difficult to assess the validity of Ruddell's room calculation, although, based on the floor plan (which is similar to other two room bars), Ellis would seem to be correct.

⁵³² Both rear rooms are identified as storerooms by Ellis, "The Pompeian Bar," 243, 267. For a discussion on the merits of the whole establishment (I.10.2-3) being given over to the provision of food and drink, see R. Ling, *The Insula of the Menander at Pompeii*, Vol. 1, *The Structures* (Oxford: Clarendon Press, 1997), 42.

⁵³³ Calabrò, "Pompeian cauponae," 86.

plain white plaster evident at I.4.27, which could perhaps point to them being storage areas. The bar at IX.1.15-16 Pompeii (P-73), with a similarly positioned rear room, seems a more likely dining space for customers. Its size (9.5m²) and decoration (red socles below white wall plaster with border detail) are suggestive of such a use. This example illustrates the need for caution when assigning room function as, although rooms located in this way are usually identified as storage spaces this is not always correct.

In other examples (6), the entrance to the rear room is more centrally placed, appearing more accessible when entering the bar. For example, the rear room (b) at I.9.4 Pompeii (P-12; Fig. 6.7a) has a wide entrance giving a light and airy, rather modern open-plan, feeling to the space. At 9.46m², this well-decorated room (featuring orange panels with red

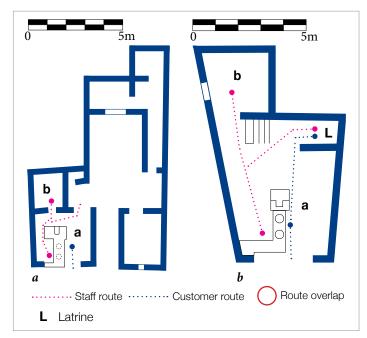


Fig. 6.6 Type 1 floor plans at a, I.10.2 Pompeii and b, I.4.27 Pompeii, with potential traffic routes.

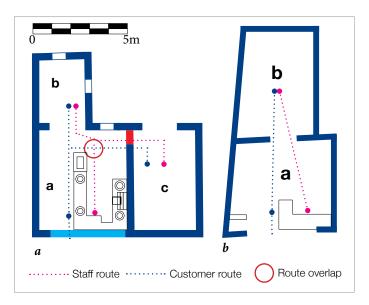


Fig. 6.7 Type 1 floor plans at **a**, I.9.4 Pompeii and **b**, IX.1.6 Pompeii, with potential traffic routes.

borders) is large enough to accommodate a number of guests, although there would have been little privacy as the entire room is visible from the street.⁵³⁶ A similar configuration can be seen at IX.1.6 Pompeii (**P-70**; Fig. 6.7b), where the spacious rear room (23.42m²) would have been well suited to customer dining, as Ruddell notes.⁵³⁷

⁵³⁴ Ellis, "The Pompeian Bar," 245, 268.

⁵³⁵ Pompeii: I.6.5, I.9.4, VI.4.3, VII.2.15, VII.7.9, IX.1.6.

⁵³⁶ Partitions and curtains, see M. T. Lauritsen, "Ante Ostium Contextualizing Boundaries in the Houses of Pompeii and Herculaneum" (PhD diss., University of Edinburgh, 2014), 205–22.

⁵³⁷ Ruddell, "The Inn, Restaurant and Tavern Business," 112.

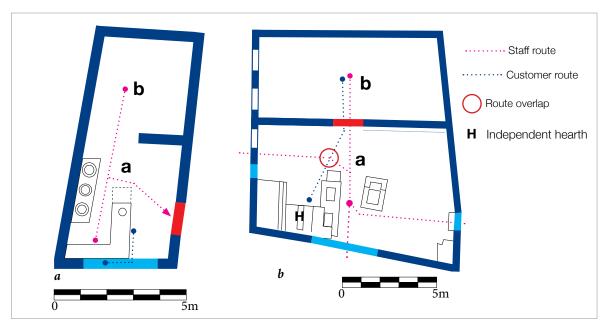


Fig. 6.8 Type 1 floor plans at a, Pompeii I.2.8 and b, IV.7.4 Ostia, with potential traffic routes.

In nine cases, the rear room spans the whole width of the main bar room. In this layout scenario, four of the entrances to the back rooms are behind the counter area.⁵³⁸ One bar in this category, I.2.8 Pompeii (**P-01**), provides convincing evidence for the usage of its back room as bed niches have been identified, cut into the wall (Fig. 6.8a).⁵³⁹ In this case, although the size of the back room (13.7m²) meets the criterion for a dining space, its position along with the evidence of bed niches clearly identifies it as a *cubiculum* intended for the private use of the owner or manager.

In the remaining five instances, the entrances to the back rooms are placed centrally, outside of the counter service zone.⁵⁴⁰ A good example of this layout scenario is at IV.7.4 Ostia (**O-15**), which has a particularly large back room (40.58m²), (Fig. 6.8b). Paved in black and white mosaic and lit by two high windows, this room has been identified as both a dining room and a brothel.⁵⁴¹ The latter identification is based solely on the mosaic depicting Venus located in front of the doorway to the back room, and as such is not particularly convincing. On entering the establishment, sight lines towards room b are unobstructed and navigationally almost preplotted as the layout of fixtures steers patrons in between the counter and a central basin.

⁵³⁸ Pompeii, I.2.8, I.12.12, VII, 9.30, VII.16.7.

⁵³⁹ Ellis, "The Pompeian Bar," 218; Fiorelli, Descrizione, 41.

⁵⁴⁰ Pompeii: VI.17.2, VIII.3.23, IX.7.13, Ostia: IV.2.3 room 10, IV.7.4.

⁵⁴¹ Hermansen, *Ostia*, 175; J. T. Bakker, "Ostia: Harbour City Of Ancient Rome," accessed January 29, 2018. http://www.ostia-antica.org/regio4/7/7-4.htm. This identification is based on the mosaic depicting Venus, which is in front of the doorway to the back room.

Type 2 layout: There are just two bars with this layout, both of which are at Pompeii, I.3.11 (P-02) and VII.13.24 (P-64). These establishments are independent units and have a very similar floor plan. The side positioning of the secondary rooms and, in particular, the wide entrance at VII.13.24 (Fig. 6.9), makes both areas highly visible from the front threshold and seemingly accessible to customers as they enter the premises. In contrast to floor plans that locate the secondary room behind the counter, in these examples, the interior of the

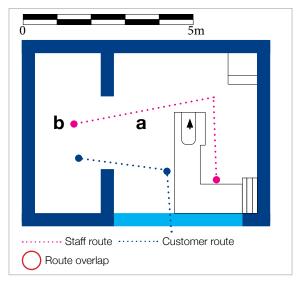


Fig. 6.9 Type 2 layout at VII.13.24 Pompeii, with potential traffic routes.

second room is more easily visible to servers at the counter. However, this configuration was not particularly common, suggesting that it was not a popular format for a bar. Nevertheless, the navigation routes for both patrons and staff are clearly demarcated, providing crossover-free circulation routes. Ruddell suggests that room b in both properties was used for customers and, given the size (12.25m² and 10.28m²) and visibility of the rooms, this would seem an appropriate designation.⁵⁴²

Summary 2 rooms: Due to the simple layout of type 1 properties, secondary rooms were close to the main bar room, making them easily accessible and often highly visible when entering the premises. Circulation routes are clear and well defined with little or no overlap between staff and customers (just 8 examples of 22 have one possible overlapping intersection point). The size of the secondary rooms in this data set varies considerably, but those with larger areas, such as at IX.1.6 Pompeii (P-70) and IV.7.4 Ostia (O-15), would have benefited from the potential space available for extra customer capacity. Although identifying the function of the secondary rooms is difficult, using size as the primary criterion is a useful guide. The relative position of rear rooms can also serve as an indicator, but the above examples demonstrate that this is not a water-tight methodology.

Three-rooms bars

Type 1 layout: The most common layout for the three-room bars is type 1, with 15 of 18 examples. Like the two-room establishments, this layout consists of two different floor plans: the first, where both of the rear

⁵⁴² Ruddell, "The Inn, Restaurant and Tavern Business," 189.

⁵⁴³ Possible route overlaps at I.3.11, I.8.1, I.09.4, VI.4.3, VII.6.20, VII.7.9, VII.9.30 Pompeii and IV.7.4 Ostia.

rooms can be reached directly from the main bar room (10 examples); and the second, where the third room is navigated to via the second room (five examples).⁵⁴⁴

A typical example of the first type of floor plan is at IX.1.8 Pompeii (P-71), where the rear of the property is divided into two separate spaces (Fig. 6.10a). On entering the bar, the entrances to both of the rear rooms are in the direct sight line, but the doorway to room c follows the line of the inner counter arm, which may suggest the most obvious route to a consumption

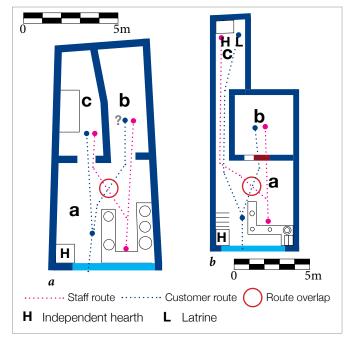


Fig. 6.10 Type 1 floor plans at **a**, IX.1.8 Pompeii and **b**, V.2.13 Pompeii, with potential traffic routes.

room. However, this is not the case, as this room actually housed a latrine, probably accessed by customers, and a stairway to an upper floor, so this area would have been used transitorily. In fact, it seems more likely that the room directly behind the counter — the larger of the two (16.07m²) — was for customers, a usage posited by Fiorelli and Ruddell. A designated storage room may not have been required in this bar as ample shelving (holes for which are extant) was built above the counter, while bulkier items such as oil or wine amphorae could have been housed in room c. In all, it would seem most likely that room b acted as a customer space, despite being located behind the service area.

A slightly different usage of space can be seen at V.2.13 Pompeii (P-26; Fig. 6.10 b). As in the previous examples, a room is located behind the counter (14.82m²), the interior of which would have been reasonably visible when standing at the front of the main bar room. Packer identifies the rear room as a dining area for patrons (as does Ruddell) — although he does not give his reasons. Fig. Ellis, however, is undecided, concluding that the room could have been used for storage or as a dining area — although he leans towards the latter based on its size and decoration, an interpretation I agree with. The second route customers might take was a narrow passageway that led to a small room housing a second hearth and a latrine. As this area is not

⁵⁴⁴ Type 1a, Pompeii: I.7.8, V.2.13, VI.1.18, VI.4.1, VI.14.35-36, VII.1.32, VII.3.9, VII.12.15, VII.13.20, IX.1.8. Type 1b, Pompeii: VI.1.17, VI.2.1, VII.9.57; Herculaneum: II.6, Ins. Or. II.6.

⁵⁴⁵ Fiorelli, Descrizione, 369; Ruddell, "The Inn, Restaurant and Tavern Business," 112.

⁵⁴⁶ Packer, "Inns at Pompeii," 32; Ruddell, "The Inn, Restaurant and Tavern Business," 85.

⁵⁴⁷ Ellis, "The Pompeian Bar," 330.

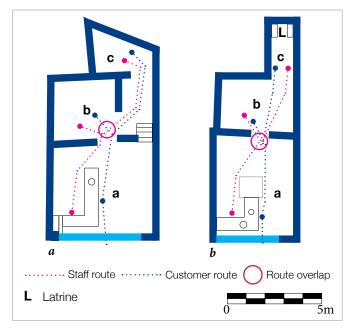


Fig. **6.11** *Type* 1 *floor plans at* **a**, VI.1.17 *Pompeii and* **b**, VII.9.57 *Pompeii, with potential traffic routes.*

particularly visible from the front of the shop, its usage would not have been apparent. The layout of this bar seems well suited to its retail use, with clearly defined spaces and routes, and a latrine and hearth placed away from the main room.

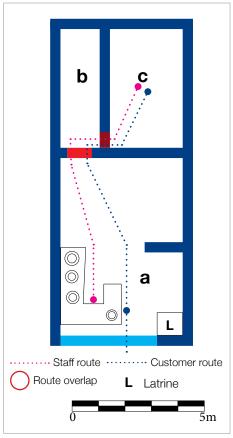


Fig. 6.12 Type 1 floor plan at Ins. Or. II.6 Herculaneum, with potential traffic routes.

Bars with the second type of layout, where the rooms are arranged consecutively, can sometimes provide an indication of which spaces were used by customers and allow for more confident route plotting. For example, the bars at VI.1.17 (P-31) and VII.9.57 (P-61) Pompeii both have a latrine (room c) — most probably used by customers — that can be reached only by going through the room behind the main bar room (Fig. 6.11a, b). Room b at VI.1.17 is, according to Ellis, 'very likely' for storage whereas Ruddell sees it as a customer space. See Given its size (c.9.18m²), identifying it as a dining room for patrons does not seem unreasonable, as indeed may also have been the case for room b at VII.9.57 (8.79m²). Although the rear room at VII.9.57 falls below the baseline dining-room size, the fact that the latrine can be accessed only via a secondary room, suggests in both cases that room b was most probably used for customer dining. In terms of sight lines, in both of these establishments, the entrances to the additional rooms (b) are well positioned to be in the line of sight on entry, particularly as the doorways are outside of the counter-service area. However, room b at VII.9.57 still retains its threshold, reminding us that doors may not always have been open, thereby preventing visibility and access to the interiors. In some cases the additional rooms give no clues as to their

⁵⁴⁸ Ellis, "The Pompeian Bar," 345; Ruddell, "The Inn, Restaurant and Tavern Business," 87.

usage and it is not clear if customers would have gained access to them (Fig. 6.12). For example, at Ins. Or. II.6 Herculaneum (H-05), patrons may have passed through room b (perhaps used for storage) to access room c, which was large enough to act as a dining area and would have offered a great deal of privacy. If so, customer access to this room does not seem obvious, due to its position, however, routes appear collision-free.

Type 2 layout: There is just one example of this type of layout, at VIII.2.24 Pompeii (**P-66**; Fig. 6.13). Its setup is very similar to that of VII.13.24, but in this case the adjacent room has been divided into two. Room b acted as a kitchen and contained a hearth while room c is identified by Ruddell as a customer dining space. However, with an area of 7.30m², a size below our 'potential' dining room baseline, this room might have been better suited to storage. Plotting furniture onto the space reveals it would have accommodated one table with four stools, with perhaps two extra seats, so a snug dining area cannot be ruled out. Despite the simple layout of the rooms, the circulation routes show some signs of overlapping due to the hearth being

placed in the room closest to the street.

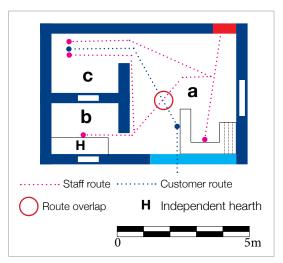


Fig. 6.13 Type 2 floor plan at VIII.2.24 Pompeii, with potential traffic routes.

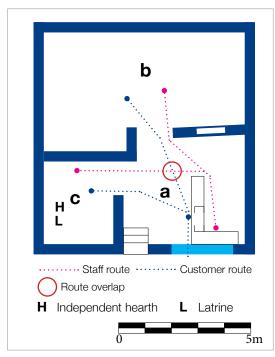


Fig. 6.14 Type 3 floor plan at VI.3.24 Pompeii, with potential traffic routes.

Type 3 layout: In this sample, we see the first two examples of this style of layout. At VI.3.24 Pompeii (P-36), the rear room (b) has a clear route through from the front of the shop (Fig. 6.14). This sizable room (24.95m²) received light from a window in the east wall, offering views into the main retail space. This room has been identified as a dining room by Ruddell, indeed its size and position — offering a fair degree of privacy —

⁵⁴⁹ Ruddell, "The Inn, Restaurant and Tavern Business," 110.

certainly points to this usage.⁵⁵⁰ Room c housed a hearth, but also a possible latrine, making this room most probably accessed by customers.⁵⁵¹

Summary 3 rooms: The layout of three-room bars continues to be simple, although the addition of a third room sees some rooms become less visible from the street, especially those reached via a secondary room. Circulation routes begin to experience some overlap with staff and customers accessing the additional two rooms (15 (83%) of the 18 bars have one or two potential crossed routes).⁵⁵² As with the two-room bars, we find rear rooms placed directly behind the counter, where the evidence points to customer dining as opposed to storage space. The most notable difference in the configuration of three-room bars is that there is a rise in rooms being used for latrines (8), kitchens (2), or both (2).⁵⁵³ This is in contrast to the low number of just four examples of the 22 bars with two rooms. This suggests that the provision for and separation of an ancillary room was considered desirable, a factor that could perhaps have been linked to limiting smells.⁵⁵⁴

Four-room bars

As the number of rooms starts to increase, the floor plans begin to get more varied, giving many of the establishments their own particular personalities.

Type 1 layout: Of the four bars with a type 1 floor plan, one has a rather sprawling layout (VI.8.9 Pompeii, **P-41**), while the remaining three have particularly well-defined spaces. Of the latter examples, the bar at VI.16.40 Pompeii (**P-47**) offers three possible routes on entering the bar (Fig. 6.15). Doorways to rooms b and c are in the direct sight line when standing at the front of the counter, the interiors of which, depending on closures, would have been partially visible. Room d would have offered the greatest level of seclusion,

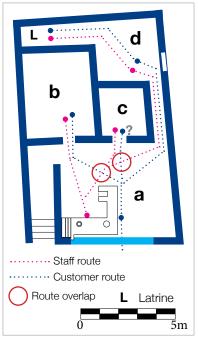


Fig. 6.15 Type 1 floor plan at VI.16.40 Pompeii, with potential traffic routes.

⁵⁵⁰ For the identification of this room as dining room, see Ruddell, "The Inn, Restaurant and Tavern Business," 89–90, no. 61; Fiorelli, *Descrizione*, 94.

⁵⁵¹ Ellis, and Eschebach and Müller-Trollius report a latrine in room c. Ellis, "The Pompeian Bar," 355, 357. Eschebach and Müller-Trollius, *Gebäudeverzeichnis Und Stadtplan*, 166.

⁵⁵² Possible route overlaps, one at I.7.8, V.2.13, VI.1.17, VI.3.24, VI.14.35-36, VII.1.32, VII.3.9, VII.9.57, VII.12.15, VII.13.20, IX.1.8, two at VI. 1.18, VI.4.1 VIII.2.24 Pompeii. One overlap at I.2.5 Ostia.

⁵⁵³ Bars with a separate room for a latrine, Pompeii: I.7.8, VI.4.1, VI.1.17, VII.1.32, VII.3.9, VII.9.57,

VII.12.15, IX.1.8; Bars with a kitchen (latrine and hearth) V.2.13, VI.3.24; Kitchen only, VI.14.36, VIII.2.24.

⁵⁵⁴ See p.215 for positioning of kitchens and latrines.

⁵⁵⁵ Pompeii: I.11.11, VI.8.9, VI.10.1, VI.16.40.

being positioned at the very back of the property. This room — decorated with a well preserved *lararium* painting — also leads to a latrine, presumably accessed by customers. *NSc* designates rooms b and c as customer spaces while Ruddell additionally adds room d as 'for serving'. Certainly, rooms b and d offer adequate space for dining, although room c — at just 6.16m² — seems more appropriate for storage. If indeed room b was used as a customer space (the absence of decoration does not help in this determination), the room's position, which is decidedly within the service area, would have made it appear less accessible. In terms of circulation, although we cannot be certain that rooms b and c were for customers, the presence of a latrine at the rear of the property strongly suggests that customers passed through, if not dined in room d. Access routes to rooms d are clear of overlap for both staff and customers but less so for rooms b and c.

Another type 1 bar that potentially offers a number of customer areas is I.11.10-11 Pompeii (**P-15**; Fig. 6.16). There are three rooms to the rear of the main retail space, which, according to Jashemski, included a dining room and a store room, although she does not specify which is which. However, all three rooms are big enough to accommodate diners (b 10.92m², c 9.59m², d 12.92m²). Room c is particularly well decorated and receives light from two windows, one of which looks onto the main bar room and the other into the garden area. All of the rear rooms, which are accessed from behind the counter area, would have offered a reasonably secluded dining experience. As there is a latrine at the back of the property, it seems likely that customers passed through rooms b and d to access it, and were perhaps also served in them. The unique selling point of this bar, however, is its garden area, which is reached via a doorway in the main bar room or directly from

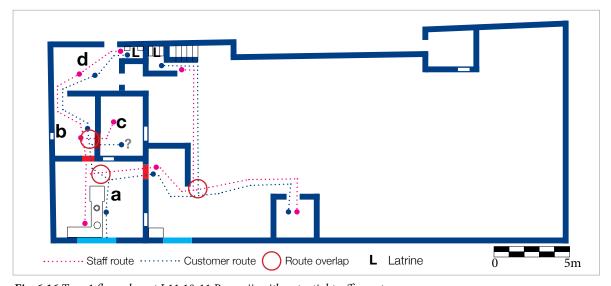


Fig. 6.16 Type 1 floor plan at I.11.10-11 Pompeii, with potential traffic routes.

⁵⁵⁶ NSc 1908, 368–70. Ruddell, "The Inn, Restaurant and Tavern Business," 97.

⁵⁵⁷ Room b is 17m² and room d is 11.25m².

⁵⁵⁸ Jashemski, Gardens of Pompeii, Vol. 1, 172.

the street. Jashemski identifies
two 'garden rooms' where guests
were probably served. This
establishment is particularly well
equipped as it has a second latrine
in the garden. For serving staff,
this bar would have been a fairly
large area to cover and keeping
track of customer needs would have
required a proactive approach (or
multiple staff). Despite this, the

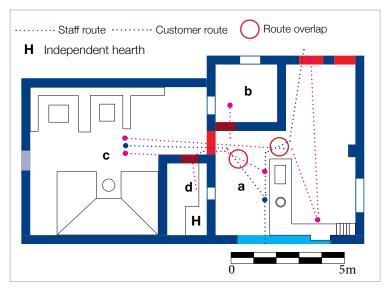


Fig. 6.17 Type 3 floor plans at II.4.7 Pompeii, with potential traffic routes.

customer and staff circulation routes appear reasonably uncluttered.

Type 3 layout: Five bars have this layout, one of which provides one of the best examples of a clearly identified customer dining area. For At II.4.7 Pompeii (P-21), a room off to the side of the main bar room houses a masonry triclinium couch along with stone benches and tables (Fig. 6.17). The interior of this room is not visible from the street or when standing at the front of the counter, so customers could enjoy themselves out of sight of prying eyes. A kitchen has been set up within this area, making for a smooth delivery of comestibles. According to Ellis, the small room (6.96m²) at the rear of the main bar room (b) may have been for storage. Although it is located outside of the counter service area, in view of its dimensions, I agree with Ellis's designation as the bar provides ample guest space throughout. A doorway behind the counter leads to a swimming pool, whether or not there was access to this area during service hours is unclear. But, given that there is a bench that runs along the back of the bar, opposite the pool, it is possible that staff served drinks and snacks to bathers, two activities that are often linked together in the ancient literature. This bar is characterised by fairly clear access routes, in what would presumably have been a thriving business due to its location close to the Porta Sarno.

On first inspection the bar at IV.17 Herculaneum (**H-03**) appears somewhat bijou, but its type 3 layout provides ample space for both storage and dining activities (Fig. 6.18). From the front of the bar, there is only

⁵⁵⁹ Jashemski, "The Caupona of Euxinus," Fig. 6; Jashemski, Gardens of Pompeii, Vol. 2, 52.

⁵⁶⁰ Hobson, Latrinae et Foricae, 122.

⁵⁶¹ Pompeii: II.4.7, V.1.4, VI.3.20. Herculaneum: Ins. Or. II.13, IV.17.

⁵⁶² Ellis, "The Pompeian Bar," 309.

⁵⁶³ Mart. 12.19; CIL IV 10603; CIL IV 10674; CIL IV 10677; G. G. Fagan, Bathing in Public in the Roman World (Ann Arbor: University of Michigan Press, 1999), 33–34; J. D. Zienkiewicz, The Legionary Fortress Baths at Caerleon, Vol. 2, The Finds (Cardiff: National Museum of Wales, Cadw, 1986), 98–116, 225–41.

one obvious additional space, which houses a low bench (height 40cm) set around the three sides of this compact room (4.81m²). This room was also used as a storage space as there is evidence for shelving — nicely illustrating the multifunctional nature of space, highlighted by Nevett (p.162).⁵⁶⁴ Also identified as being used as both a storage and customer space was the adjacent room (c), again accessed from behind the counter, where, when excavated, many items concerned with food preparation were found. This area leads into another room (d) that has been identified as a

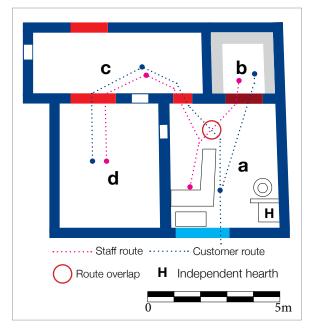


Fig. 6.18 Type 3 floor plan at IV.17 Herculaneum, with potential traffic routes.

dining room, which communicates with the main bar room via a window or hatch (perhaps providing staff with a time-saving method of service).⁵⁶⁵ This room, along with room c, would have offered guests a great deal of seclusion, in contrast to the very public main bar room. As well as the well-defined circulation routes from room to room, additional traffic may have come from the attached building (via room c) that, according to Wallace-Hadrill, was possibly a *hospitium*.⁵⁶⁶ Given the finds, and the possible need for the provision of dining for guests from the *hospitium*, identifying these rooms as customer spaces seems fair.

Summary 4 rooms: In the four-room category, the type 3 layout is the most common, in contrast to the three-room bars. Although some rooms are still semi-visible from the street, this sample also includes rooms that are completely removed from the gaze of passers-by. We also find two examples of customer dining areas where identification is more easily determined, thanks to the extant masonry seating. The location of latrines continue to pinpoint which rooms customers may have passed through or been served in. We again see rooms with doorways placed directly behind the counter as routes for customers to access dining spaces and signifiers of storage room spaces become less clear due to the increased number of rooms in these establishments. Access routes, however, remain relatively uncluttered. Three properties in this sample also show how the business

⁵⁶⁴ Maiuri, *Ercolano: I Nuovi Scavi*, 437; Monteix, *Les Lieux de Métier*, 387; F. Pesando and M. P. Guidobaldi, *Pompei, Oplontis, Ercolano, Stabiae*, Guide Archeologiche Laterza 14 (Rome: Laterza, 2006), 338, 347.

⁵⁶⁵ Maiuri, Ercolano: I Nuovi Scavi, 437; Monteix, Les Lieux de Métier, 387.

⁵⁶⁶ Wallace-Hadrill, Houses and Society, 201.

model of a bar could be expanded and diversified, for example, by potentially extending its customer base by drawing custom from bathers, *hospitium* guests, or offering an al fresco dining environment.

Five-room bars

Type 1 layout: There are two examples of a type 1 layout in the five-room category.⁵⁶⁷ The bar at V.I.13 Pompeii (P-25) has a particularly interesting spatial arrangement as the property is long and narrow, with rooms running off from a side corridor (Fig. 6.19). On entering the bar, customers would have been faced

with two possible route options. The first is room b, directly behind the counter, with its doorway positioned to give clear access from the front of the shop. The room has been identified by Packer as a dining area, due to the existence of a couch niche, this along with the room's position and size (16.85m²) clearly point to such a use. 568 The second route was to take the passageway on the right of the main bar room. However, none of the rear rooms is visible from the front of the building, so it may not have been an obvious choice. Moving deeper into the establishment brings you to room c — also identified as a dining room — and the courtyard (d) which may have been used by customers, according to Packer.⁵⁶⁹ The courtyard also housed a latrine in the northwest corner below the stairs, to which customers presumably had access. If Packer is correct in his assertion that this establishment offered 'several private drinking chambers, it would mean that customers had access to most of the ground floor of this building. However, he does not provide evidence to back up his identification of these rear rooms, so his argument is somewhat unconvincing. Room e, on the other hand, at the very back of the property, contained

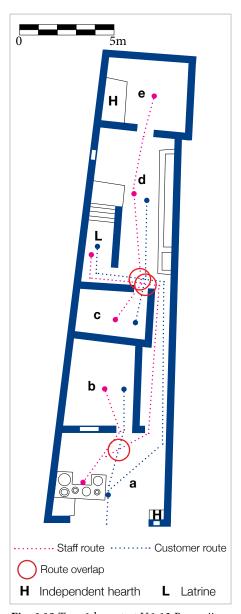


Fig. 6.19 Type 1 layout at V.1.13 Pompeii, with potential traffic routes.

⁵⁶⁷ V.1.13, VII.4.4.

⁵⁶⁸ Packer, "Inns at Pompeii," 40. Ruddell also identifies 'rooms at the back to accommodate customers', Ruddell, "The Inn, Restaurant and Tavern Business," 83.

⁵⁶⁹ Packer, "Inns at Pompeii," 40-42.

a hearth so can be confidently designated as a kitchen, accessed by staff .⁵⁷⁰ As in the case of I.11.10-11, this establishment potentially comprises a large area for staff to cover, with little visual access from the main bar room. Although circulation routes around the bar are well defined, some crossover may have been experienced in the narrower part of the passage way to the right of room c.

Type 3 layout: Three bars have this type of layout, but are quite different in their spatial arrangement. At II.8.2-3 Pompeii (**P-22**), the front of the property is taken up with four rooms, separated by a narrow entrance

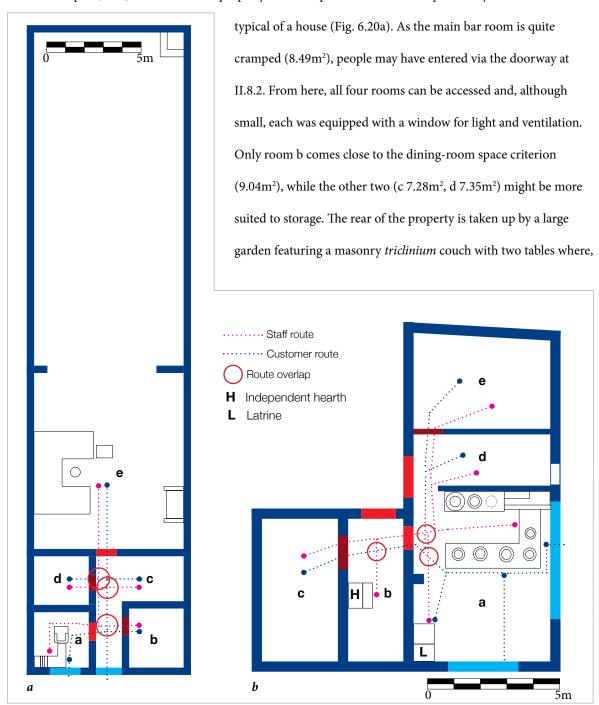


Fig. 6.20 Type 3 floor plans at a, II.8.2-3 Pompeii and b, IV.15-16 Herculaneum, with potential traffic routes.

⁵⁷⁰ Ibid., 42; Ellis, "The Pompeian Bar," 327; Ruddell, "The Inn, Restaurant and Tavern Business," 83.

according to Jashemski, customers would be served.⁵⁷¹ If any or all of the rooms at the front of the property were used for customer dining, along with the garden area, this bar would have offered a great deal of privacy as well as a choice of environments in which to dine.

The second bar with a type 3 layout is IV.15-16 Herculaneum (H-02), where the main bar room is flanked by two rooms on each side (Fig. 6.20b). Passing through room b, the site of food preparation, customers would have reached one of the three dining areas. ⁵⁷² The other two consumption rooms (d and e) — one accessed via the other — were on the opposite side of the bar room. As these rooms contained a large amount of graffiti, customer usage seems likely. ⁵⁷³ This is an unusual configuration of space, with the dining areas separated by the main bar room, it is interesting to speculate if the separation was class-related, akin to modern bars with their saloon and public bar. ⁵⁷⁴ Whatever the case, all three additional dining areas would have offered good degrees of privacy not found in the double-fronted main bar room. The main crossover in circulation routes would most probably have occurred at the entrance to room b, where staff moved back and forth with cooked food items. This route may have been further compromised by staff and guests accessing the latrine at the bar's entrance.

Summary 5 rooms: What is particularly noticeable in this sample is the diversity of layouts, which offer a wide variety of customer dining options. In particular, three of the five bars had rooms that would have provided high levels of privacy, with little of no visibility from the street. Some of these rooms may even have provided private dining areas to small pre-booked parties as opposed to random off-the-street customer usage (perhaps rooms b and c at II.8.2-3 Pompeii, room c at V.1.13 Pompeii, and room e at IV.15.16 Herculaneum). In this sample, none of the layouts is without circulation issues, and two of the bars have three potential flashpoints that may have inhibited a smooth flow of customers and staff. The lack of streamlined access routes is not surprising given that most of the bars worked with floor plans that were not intended for commercial purposes. No doubt this was not regarded as a major issue, but it illustrates how the functioning of a food and drink outlet could adapt to a wide variety of spatial layouts. Just as in the previous sample, some rooms provide strong indicators of usage thanks to features such as couch niches, *triclinia* or evidence of hearths and latrines.

Six-room bars

⁵⁷¹ Jashemski, Gardens of Pompeii. Vol. 2, 92.

⁵⁷² Monteix, Les Lieux de Métier, 384.

⁵⁷³ de Kind, Houses in Herculaneum, 159.

⁵⁷⁴ For the division of space in Victorian pubs, see M. Girouard, *Victorian Pubs* (London: Yale University Press, 1984), 61–84.

Type 1 layout: Of the nine bars with six rooms, four have a type 1 layout, three of which are similar in their configuration, with rooms located predominantly down one side of the establishment.⁵⁷⁵ Using IX.9.8 Pompeii (P-76) as the example, on entering the bar, the eyeline is led to the entrance of a rear room (b) which has been identified by Ruddell and NSc as a customer dining area (Fig. 6.21).⁵⁷⁶ Indeed, the positioning of room b, its size (9.66m²) and its decoration (see pp.248-251), all point to a room for customer use. To the left of the main bar room is a corridor that houses a hearth and latrine, this in turn leads to a further room (d) that both Ellis and Ruddell believe was an additional room for the clientele.577 At 12.81m2, the room's size certainly fits the criterion for a dining area while room e (at 6.88m²) may have provided storage space. The small garden (f), may also have been used by customers.⁵⁷⁸ This establishment has a secondary entrance that could have been used to access the more private and secluded rear rooms, so customers could avoid passing through the public main bar room. An alternative reading of the space could be that the secondary

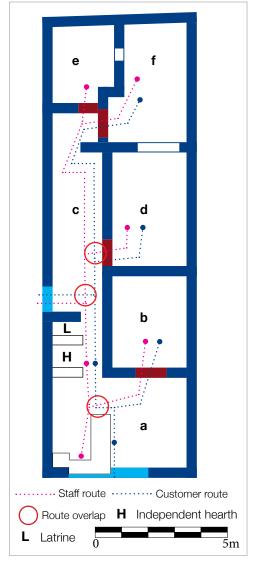


Fig. 6.21 Type 3 floor plans at IX.9.8 Pompeii, with potential traffic routes.

entrance at IX.9.9 (**P-76**) marked the division between the public and private spheres of the property and that for customers, access ended at the latrine. If, for argument's sake, we include the rear of the property in the plotting of the space, the configuration of rooms is similar to that of V.1.13 (**P-25**), and would therefore have experienced the same issues of circulation.

Type 3 layout: This layout type is seen in five bars. Of these, the bar at IV.2.6 Ostia (**O-14**) is of particular interest as its floor plan is different from the others (Fig. 6.22). On entering the building, the visitor walks through a central corridor passing the stairs leading to the upper floor, a service or storage room, then into

⁵⁷⁵ II.1.1, VII.1.39, IX.9.8 and VII.3.1 which has a slightly different configuration.

⁵⁷⁶ Ruddell, "The Inn, Restaurant and Tavern Business," 74; NSc 1889, 126.

⁵⁷⁷ Ellis, "The Pompeian Bar," 503; *NSc* 1889, 126; Ruddell, "The Inn, Restaurant and Tavern Business," 118; DeFelice, *Roman Hospitality*, 303.

⁵⁷⁸ Jashemski, Gardens of Pompeii, Vol. 2, 247, no. 512.

a small, unroofed courtyard (d) from which a latrine could be accessed. 579 From the courtyard — which may have been used to serve customers — a second corridor finally leads to the bar room. The counter is placed at the back of the room in the southeast corner, leaving plenty of circulation space. A richly decorated small annex room (b) is off from the main bar room. This room is identified by Hermansen as a dining room, although given its size (4.76m2) it would only have been able to accommodate a very limited number of guests.⁵⁸⁰ An additional courtyard can be found at the back of the property (c), which was equipped with masonry benches, as these were installed when the building was converted to a bar it seems fair to conclude that this area was for customer use.⁵⁸¹ The room opposite the bar room (e) has been identified as a cubiculum, but whether or not the function of this room changed over time is unclear.⁵⁸² To achieve a streamlined service, staff would have needed to be proactive in serving

customers in the two courtyards, as neither of these areas

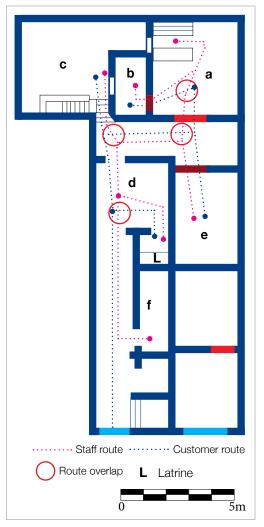


Fig. 6.22 Type 3 floor plan at IV.2.6 Ostia, with potential traffic routes.

can be seen from the bar room. This establishment highlights that the repurposing of a house does not always allow for a practical working arrangement. As the main bar room is not on view to passers-by it would have given customers high levels of privacy, not to mention peace and quiet from the street noise.

In contrast to the unusual floor plan at Ostia, VI.1.2 (P-29) and VI.I.5 (P-30) Pompeii have very similar layouts to each other, with a more even spread of rooms (Fig. 6.23a, b). This type of configuration would have allowed staff to more easily monitor customer flow in all areas. Of course, whether all the rooms at VI.1.2 and VI.I.5 were used for customer service is debatable. Ruddell identifies three rooms as such at VI.1.2, but gives

⁵⁷⁹ Stöger, Rethinking Ostia, 119.

⁵⁸⁰ Hermansen, *Ostia*, 168. For a detailed description of this room's decorative scheme, see Clarke, *Houses of Roman Italy*, 349–52.

⁵⁸¹ Stöger, Rethinking Ostia, 119.

⁵⁸² Clarke, Houses of Roman Italy, 345.

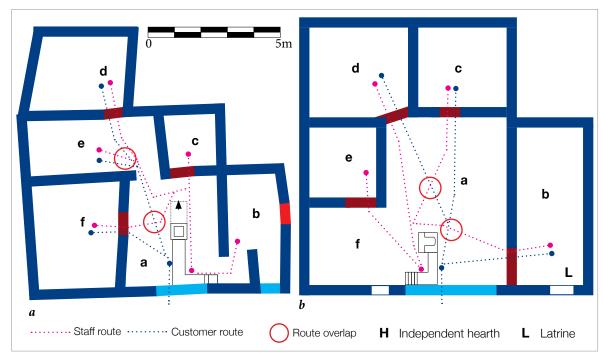


Fig. 6.23 Type 3 floor plans at a, VI.1.2 Pompeii and b, VI.1.5 Pompeii, with potential traffic routes.

no further details.⁵⁸³ Room c, which is behind the counter, is the smallest of the rooms (5.51m²), so perhaps this was more likely to be used for storage. The other three rooms d, e, f would have been more suited to customer use. Room d, accessed via room e, would have offered the most secluded space in the bar. A latrine is also documented by Fioreill and Eschebach also notes a kitchen.⁵⁸⁴ As well as the interior rooms, a masonry bench has been built outside at the entrance to the bar, adding a further al fresco option for customer seating and an additional area requiring service.

Summary 6 rooms: Unlike the floor plans in the five-room category, which saw a great deal of diversity in layout, in this sample some patterns are evident. In the first, we find a number of bars set up in long, narrow premises (as seen before at V.1.13), which again provides a range of semi-private to secluded rooms located towards the back of the property. But, although these floor plans provide neat and well-defined spaces, route overlap is inevitable. In the second pattern, the bar room is surrounded on three sides by additional rooms. Although not necessarily highly conspicuous from the street, customers in these rooms would have been partially visible from the main bar room, which was no doubt a plus-point for staff, who could keep an eye on service requirements. Again, there are some issues with possible route collisions, but perhaps less so than might be anticipated given the radial nature of the configuration.⁵⁸⁵ The identification of the function of many

⁵⁸³ Ruddell, "The Inn, Restaurant and Tavern Business," 86.

⁵⁸⁴ Fiorelli, *Descrizione*, 76–77; Eschebach and Müller-Trollius, *Gebäudeverzeichnis Und Stadtplan*, 150–51.

⁵⁸⁵ One overlapping route at I.11.1, II.1.1, VI.1.2, VII.3.1; two at I.14.15, VI.1.5; three at IX.9.8 Pompeii; four at IV.2.6 Ostia.

of these rooms continues to be problematic, particularly because unlike previous samples there are fewer features — beyond hearths or latrines — to provide any clues.

Seven-room bars

Type 1 layout: The bar at VI.8.8 Pompeii (P-40) is the only example of this layout type in the seven-room category (Fig. 6.24). Located in a prime position, opposite the Forum Baths, it probably had a rather high turnover. It is therefore interesting to see how the space in this bar was configured to accommodate a large numbers of guests. Apart from the generous counter allocation, the establishment has been divided into a number of well-defined rooms positioned throughout the property. Room b, directly behind the counter, has been identified as a storage room by Ellis, while Ruddell suggests a possible bedroom for the proprietor.⁵⁸⁶ However, the open frontage of this room, as well as its size (6.85m²), may make it more likely to be a convenient storage space. Room c, directly behind, is smaller still (6m²), and in contrast, its enclosed nature might have made it more appropriate as sleeping quarters. Rooms d and e were sizable and may well have been used by customers, as Ellis suggests.⁵⁸⁷ Set back from the front of this spacious bar, these rooms would have provided a much quieter atmosphere. The

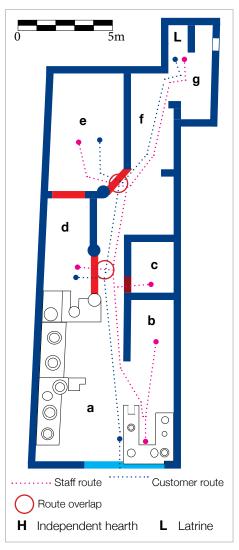


Fig. 6.24 Type 1 floor plan at V1.8.8 Pompeii, with potential traffic routes.

passageway leads to the very back of the establishment where a latrine was located, although, considering the potential customer numbers of this bar, a single latrine might seem optimistic.⁵⁸⁸ Again, the function of the individual rooms in this establishment is far from clear cut, but, if counter space is indicative of customer numbers, perhaps the majority, if not all, of these rooms were given over to the use of customers. With rooms located on either side of the property, the central corridor would have been the site for most

⁵⁸⁶ Ellis, "The Pompeian Bar," 364; Ruddell, "The Inn, Restaurant and Tavern Business," 91.

⁵⁸⁷ Ellis, "The Pompeian Bar," 364.

⁵⁸⁸ Hobson, Latrinae et Foricae, 55.

activity as customers and staff made their way to the various rooms, some congestion would seem likely to occur.

However, visibility for monitoring the rear rooms would have been poor.

Type 3 layout: There are two examples of this layout, one of which, at V.4.7 Pompeii (P-28), offers a number of clues as to the room usage (Fig. 6.25). At the rear of the property, the floor area of room e is taken up with a number of *dolia* sunk into the ground and a wine press, while room g houses a large oven. These rooms were clearly not to be accessed by the clientele. This was probably also the case for room b, its location directly behind the counter along with its size (6.91m²) is suggestive of a storage room. The function of room d is unclear but it houses a staircase to the second floor,

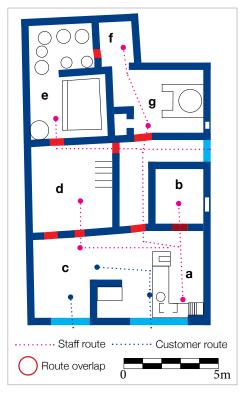


Fig. 6.25 Type 3 floor plan at V.4.7 Pompeii, with potential traffic routes.

which could have meant it was accessed by staff alone or that further consumption rooms were to be found on the upper floor. Ruddell, mentions a latrine next to a 'small stove', presumably in room g, but this is not recorded by Hobson or Ellis. What is particularly unusual is that the shop at V.4.6 is not spatially separated from V.4.7, suggesting that these two rooms would have worked in tandem. Room c may have functioned as a rather public dining area or perhaps as a site for the sale of the goods produced in the back rooms. Whatever the case, during service hours there were probably a number of staff concerned with the different retail activities within the one building, which, despite the number of rooms, provided well demarcated access routes.

Summary 7 rooms: The three seven-room bars have well-defined spaces and feature rooms with varying degrees of seclusion. Floor plans resemble those seen before and despite the increase in room numbers, the route access is relatively uncluttered. Visual monitoring of customer needs from the main bar would at times have been problematic, suggesting that there were additional staff on hand to provide service in the more secluded rooms. Apart from the bar at V.4.7, which obviously did not give its entire ground floor over to customer dining, the identification of room usage at VI.8.8 and VI.16.33 is less clear.

⁵⁸⁹ Ellis, "The Pompeian Bar," 337-38; Ruddell, "The Inn, Restaurant and Tavern Business," 86.

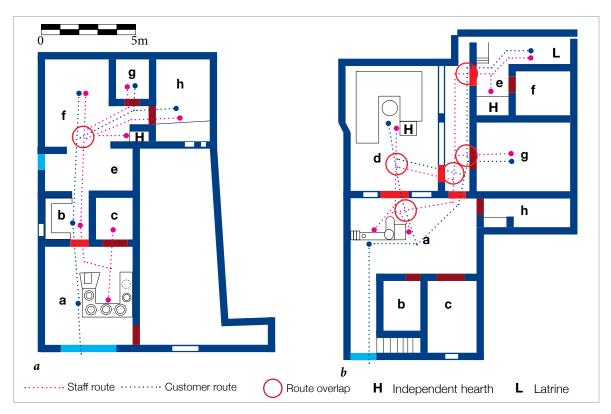


Fig. 6.26 Type 1 floor plans at a, I.8.15 Pompeii and b, I.11.16 Pompeii, with potential traffic routes.

Eight-room bars

Type 1 layout: There are four eight-room properties, three of which conform to a type 1 layout.⁵⁹⁰ On entering the bar at I.8.15 Pompeii (**P-11**), the customer is apparently faced with three possible route choices (Fig. 6.26a). To the right is a doorway to a workshop that produced pigments and dyes, a route option obviously not intended for the bar's clientele. Directly behind the counter is a small room (c, at 4.36m²) that Ellis identifies as a storage room but that has also been described as a *cubiculum*.⁵⁹¹ Adjacent to this, room d was fitted with a low bench. Given its similarity to rooms seen at I.11.1 Pompeii (**P-14**) and IV.17 Herculaneum (**H-03**), this was also presumably for customer use (Fig. 3.11, a-c). Behind room d are two further possible consumption rooms (f and g) and a garden, which was perhaps also available to customers (h).⁵⁹² Whether or not room g was used as a dining area is far from certain as it is even smaller (at 4.27m²) than room c. A second hearth located in room f, would have been well placed for the delivery of food with its central location to the surrounding rooms. This second hearth may well have been the primary cooking source for more substantial meals, which could have been eaten in the secluded back rooms or garden area.

⁵⁹⁰ Pompeii, I.8.8, I.8.15, V.2.19.

⁵⁹¹ Ellis identifies the room as storage, Ellis, "The Pompeian Bar," 260. It is also identified as a *cubiclum* based on the recess in the east wall, Castiglione Morelli del Franco and Vitale, "L'insula 8 della Regio I," 207. 592 Ellis identifies rooms f and g as possible consumption rooms, Ellis, "The Pompeian Bar," 260–61.

Access routes are fairly well ordered, although room f would have seen the greatest level of activity, which may have caused some overlapping.

Type 3 layout: The bar at I.11.16 Pompeii (**P-16**) — identified as a *hospitium* — provides a rather unusual example of a food and drink establishment layout (Fig. 6.26b). Instead of having the usual wide shop frontage, the property is entered via a narrow corridor, making the counter virtually invisible from the street. Once inside, patrons had the option of at least two consumption areas. The first of which was the outdoor *triclinium* (d) — which dominates much of the interior space — and second what, according to Packer, may have been a winter *triclinium* (g). ⁵⁹³ At 15.81m² the size of room g would give ample space for a dining room but Packer does not give his reasons for this identification and there does not appear to be any obvious evidence to support this assertion. He also notes another possible small dining room on the upper floor. ⁵⁹⁴ The rear of the property contained a kitchen with a hearth (e) and a possible dormitory for slaves (f). There is also a latrine in this area, most probably accessed by customers. ⁵⁹⁵ In total, this bar had three separate cooking facilities, suggesting that the sale of food and drink was a primary concern. From the customers' point of view, a dining experience at this bar would have offered unrivalled levels of privacy. Circulation routes appear somewhat chaotic, especially if room g was included as one of the customer spaces.

Summary 8 rooms: With little visibility from the street, many of the potential customer rooms in this catchment offered high levels of seclusion. In two cases, even the main bar room would have provided a less visible consumption area as the counters were set back from the threshold. The floor plans of these multi-roomed establishments are somewhat sprawling, often offering privacy even from other guests at the bar. Circulation patterns are generally good, with the exception of the bar at I.11.16, which has the highest number (5) of potential path collisions in the entire sample of 70 bars. At busy periods this would have been a challenging environment, although staff designated to specific service areas may have lessened the chaotic circulation routes, this would not have alleviated the problems entirely. To aid identification of some of the rooms in these establishments, we again find masonry seating, hearths and latrines. As this sample includes three bars with outside space, it suggests that larger establishments were keen to incorporate a garden area within their properties. Although there is no evidence to securely identify these areas as customer spaces, they would certainly have provided a different dining environment that could have added to the attractiveness of the establishment.

⁵⁹³ Packer, "Inns at Pompeii," 18, 21. For a discussion of the outdoor *triclinium*, see Jashemski, *Gardens of Pompeii*, Vol. 1, 73–84, 178–81, Fig. 265; Vol. 2, 53, no. 78; 325–26, no. 18.

⁵⁹⁴ Packer, "Inns at Pompeii," 23.

⁵⁹⁵ B. Hobson, H. Molesworth, and K. Trusler, Pompeii, *Latrines and Down Pipes: A General Discussion and Photographic Record of Toilet Facilities in Pompeii* (Oxford: John and Erica Hedges, 2009), 98.

Average number of customers in bars at Pompeii			
AVERAGE NUMBER OF CUSTOMERS ACCOMMODATED PER BAR			
Main bar room Standing at counter	Main bar room Seated at tables		Total
6	7	13	26
NUMBER OF CUSTOMERS ACCOMMODATED IN 163 BARS AT POMPEII			
Main bar room		Additional rooms	Total
Standing at counter 978	1,141	Seated at tables 2,899	5,108
NUMBER OF CUSTOMERS SERVED IN 163 BARS IN A ONE HOUR TIME SLOT			
Main bar room	Main bar room		Total
One server** 3,260	Seated at tables 1,141	Seated at tables 2,899	7,300
Two servers			
6,520	1,141	2,899	10,560
*Based on 223 potential extra customer rooms. **Based on 3 minutes service time per customer.			

Fig. 6.27 Customer numbers in bars at Pompeii.

Customer numbers

The exploration of potential additional customer rooms can provide further details regarding the function of the bars on a broader scale. For example, with the use of modern anthropometric data (see p.44-46) it is possible to estimate the number of customers that could be accommodated across a specific site. To do this I plotted customers standing at counters, seated at tables in the main bar room and in additional rooms of the 76 bars at Pompeii (see also pp.220-222). From this I was able to estimated the mean number of customers and apply the figures across the 163 bars identified at Pompeii (Fig. 6.27). This showed that at the most basic level 5,108 customers could be accommodated at one time in all of the 163 Pompeian bars. However, the turnover of customers standing at the counter is far greater than those that are seated. If we factor in three minutes for a staff member to serve one customer, in a one-hour time slot this equates to 3,260 customers across all of the bars. ⁵⁹⁶ Of course, many of the bars would have had a number of servers, which could see the amount of customers served at the counter at least double. Therefore the total customers accommodated at Pompeian bars in a one-hour time slot could amount to around 10,560. Given that the estimated population of Pompeii is around 12,000, this suggests that the city was well provided for with ample food and drink outlets for inhabitants and visitors.

⁵⁹⁶ A guide to wait times, see R. C. Larson, "Starbucks a Strategic Analysis," Brown University Economics Department, 2008, 82; "The Waiting Game: Fast-Food Queuing Theory," Aether Store, accessed November 14, 2018, https://blog.aetherstore.com/2013/04/the-waiting-game-fast-food-queuing-theory/.

Conclusion

Of the 97 bars included in this study, 72% had more than one room. Of these 70 bars, the type 1 floor plan — where additional rooms are located behind the bar room — was the most common (69%). Less prevalent, was the type 3 layout, where connected rooms formed a radial pattern around the main bar room (27%) and the least common layout, at just 4%, was type 2.

As this exploration has highlighted, the identification of room usage is extremely problematic and it is perhaps not surprising that scholars apply functions to rooms seemingly arbitrarily based on little or no evidence. However, this study has demonstrated that the attribution of a room for storage, based largely on its location behind the counter and to some extent its size, is not sustainable. Additionally, as rooms may often have been multifunctional, we need to keep an open mind when assigning room usage. An examination of the floor plans illustrates that there was no set template and that the configuration of rooms was largely shaped by the architecture of the building. This was particularly true when commercial spaces were carved out of domestic properties. Although some shops may have been included in the construction of houses (at Pompeii and Herculaneum), others would have been converted later. Furthermore, while some of the shop owners were content with a single room, others may have responded to the demand for greater availability of consumer goods by expanding their businesses. Indeed, this is suggested by Ellis, who argues that the reorganization of Rome's political landscape that took place during the establishment of the Principate had an enormous impact on every aspect of urbanisation.⁵⁹⁷ As he notes, the increased population (due to migrations, resettlements and colonization) resulted in a need for a corresponding retail market to provide all things necessary for urban life.⁵⁹⁸ Responding to market needs by reconfiguring how space was used would therefore have resulted in some suboptimal floor plans.

What is particularly apparent about the diverse and often haphazard nature of the layouts is that they would have dictated how the bar functioned. For example, in the larger bars, sprawling layouts would have meant that additional customer rooms could not be easily monitored. Visual and verbal communication would be lost, resulting in the need for a different staffing model. However, bars with multiple rooms could offer a wider range of dining environments and different levels of privacy, which might appeal to a more up-market clientele.

With such a wide variety of floor plans, it is perhaps not surprising that staff and customer routes were sometimes less than ideal. At peak service times, for example, accessing additional rooms would not always

⁵⁹⁷ Ellis, Roman Retail Revolution, 176-77.

⁵⁹⁸ Ibid., 177-78.

have been a seamless operation, as the plotting of the potential customer and staff routes has shown. Fifty-three percent of the bars had no obvious route overlaps, while 35% had one possible collision point and 12% had two or more, with the potential for inefficient flow patterns. As might be expected, bars with fewer rooms generally had fewer flash points, and although some of the larger bars would have experienced more chaotic routes others had none or just one — whether or not this was down to planning is unclear.

While I do not suggest that staff and customer routes were a key consideration for Roman bar planners, plotting the potential routes can provide an insight into how the bars were experienced. As we have seen in the previous chapter, conscious decisions were made on where to place fixtures and fittings but in this case, to a greater or lesser extent, route patterns were shaped by the existing layout of the properties. Overall, what the circulation patterns suggest is that for staff and customers an ordered environment was not essential, which goes very much against the grain of modern planning. However, although we see the effects of the often randomly configured spaces in the bars of Pompeii and Herculaneum, at Ostia the picture was quite different. With the development of a more standardized form of shop architecture, larger, one-room bars allowed for more ordered circulation routes. While Ellis has charted the architectural changes in the development of shops generally, this analysis adds to that knowledge by highlighting how circulation routes, staffing models and function also changed in tandem, temporally and geographically.

⁵⁹⁹ For circulation planning, see Lawson, *Restaurants, Clubs and Bars*, 75. Planning circulation routes generally, see Ebster and Garaus, *Store Design*, 5–29; Sully, *Interior Design*, 37–51.

⁶⁰⁰ Similar shop forms can be seen on the Severan marble plan and at sites such as Baelo Claudia, Tharros, Side. Steven Ellis, *Roman Retail Revolution*, 187.

7. THE MULTISENSORY EXPERIENCE

So far, we have seen how the proprietors of the bars configured their premises to suit their business needs while working within the boundaries dictated by the building's architectural features. We have also seen the lengths to which some owners went to create a decorative impact to attract customers. But what was it like to visit or work in a Roman food and drink outlet? How did the design and layout affect the way the space was experienced? Were there differences between the various bars and across the three sites? Here, I add flesh to the bones of these establishments to try to place the people back into the ruins to understand their sensory experience. Drawing on the archaeological remains, ancient literature, graffiti, artefacts and imagery, I will attempt to draw a picture of the sights, sounds, tastes and smells that would have been experienced in, what was for many, an important part of everyday life. However, understanding the Roman sensorium is fraught with problems. As Toner points out, although we all experience the world through our senses, any exploration of this area is limited by factors of cultural difference. On the sum of the sum

... the ways in which different senses are experienced varies greatly both between and within cultures. What smells disgusting, for instance, is culturally influenced. The Roman sensory experience was very different from ours. We cannot hope to re-create their experience in its entirety, but we can establish some of the different cultural meanings that the senses held for them.⁶⁰³

Another issue is that there is little evidence from the people who actually visited the bars.⁶⁰⁴ Although the elite authors have much to say on the subject, they are not representative of the clientele and, in general, they

⁶⁰¹ In particular, see Toner, *Popular Culture*, 123–61. For the sensory experience associated with 'disreputable' professions, see Bond, *Trade and Taboo*. For sensory studies in classical history, see Betts, *Senses of the Empire*; Bradley, *Smell*; Butler and Nooter, *Sound*; S. Butler and A. Purves, eds. *Synaesthesia and the Ancient Senses* (Durham: Acumen, 2013); Purves, *Touch*; Rudolph, *Taste*; Squire, *Sight*; Toner, *Cultural History*.

⁶⁰² See also, Day, Making Senses of the Past, 6; Morley, "Urban Smells," 113.

⁶⁰³ Toner, Popular Culture, 123.

⁶⁰⁴ For the problems of evidence from the non-elite, see J. T. Toner, *Social Relations and Constructions of Social Identity among Roman Non-Elites* (Oxford Handbooks Online, 2015), 2, https://doi.org/10.1093/oxfordhb/9780199935390.013.50. For the perceived clientele of the bars, see Columella, *Rust.* 1.8.2.3; Fronto, *Ep.* 2.1.19; *Juv.* 8.171-6, 11.81; Mart. 50.70.3, 5.84.4. For a discussion of the bar clientele, see chapter 3.2.

offer disparaging views of the establishments. Furthermore, bearing in mind Bond's caution of the disconnect between the literary and physical landscapes, I take a multidisciplinary approach to consider the various sensory stimuli that combined to make up the bars' environment. In particular, I survey the types of food and wine served to get an idea of the smells and tastes customers would have experienced and the attitudes towards them. The extent to which peripheral elements, such as latrines and *lararia*, played a part in the sensory landscape is also evaluated. Finally, I look at the people in the bars and the kinds of entertainment they participated in, and the additional layers of sound and smell they provided.

7.1 The bars

One of the main criticisms levelled at the bars by the elite is that they had an unpleasant atmosphere. They are described as 'greasy' (*uncta*) cookshops or 'steaming' (*calidae*) diners and as places where you would do well to 'stop both nostrils' against the 'smoky (*fumificas*) kitchens'. Even in the poem *Copa*, ascribed to the poet Virgil (first century BCE), where the delights of a bar are extolled, it is still described as a 'smoky (*fumosa*) tavern'. In fairness, city kitchens were in general associated with pollution, as illustrated in a passage from the philosopher Seneca, writing in the first century BCE.

As soon as I escaped from the oppressive atmosphere of the city, and from that awful odour of reeking kitchens which, when in use, pour forth a ruinous mess of steam and soot, I perceived at once that my health was mending.⁶⁰⁸

Despite the apparent bias implied by the snooty attitude towards the bars in the elite literature, the archaeological remains suggest that assertions about their smoky nature were well founded, as cooking activities often took place in the main bar room.⁶⁰⁹ As a result, the decision of what type of hearth to install and where to site it was a key consideration when planning a bar's layout. For the poorer-class clientele, smoke and fumes may not have been a major issue as they would have been used to unsavoury conditions. The elite, in contrast, had the space in their homes to distance themselves from service areas and kitchen fumes. As Wallace-Hadrill notes, low-status areas tended to be marginalised to render them 'invisible'.⁶¹⁰ Not only that, the ability to conceal, or at

⁶⁰⁵ See p.19.

⁶⁰⁶ Juv. 11.81; Hor. Epist. I.14.21; Sid. Apoll. Epist. 8.11.3.

⁶⁰⁷ App. Virg. Copa.

⁶⁰⁸ Sen. Ep. 104.6, trans. R. M. Gummere, 1925.

⁶⁰⁹ Wood, or more likely the less smoky charcoal, was preferred for indoor use, see Foss, "Kitchens and dining rooms," 18. For the use of charcoal as fuel, see G. Bagnani, "No Fire without Smoke!," *Phoenix* 8, no. 1 (Spring, 1954): 23–27, https://doi.org/10.2307/1086858; Croom, *Running the Roman Home*, 33–46.

⁶¹⁰ Wallace-Hadrill, "Social Structure of the Roman house," 39–44.

least lessen, the smells of cooking was considered desirable by the elite.⁶¹¹ Whether or not these notions played any part in the thought process in the design of the bars is unclear. However, there are two examples that suggest they might: the bars at II.4.7 and I.8.8 Pompeii both have *triclinium* couches — used by the upper classes, who reclined to eat. In the case of II.4.7, the hearth is in a separate room within the dining area, and at I.8.8, the hearth is at the front of the bar, whereas the dining area is at the other end of the property.

Additionally, the hearths played an auditory role in the experience of the bar. As well as the crackle and spit of the fire as it was stoked, the soft sounds of bubbling stews, and the sizzle of foods being grilled or fried, would all have generated soundmarks. We also hear about the 'clattering of plates'— a reminder that pots and utensils were part of the auditory ensemble.⁶¹² Finds from the bars give us more precise clues as to what sounds the vessels for food preparation and serving might have made. For example, unearthed at IX.11.2 Pompeii were terracotta pitchers, glass cups and various bronze vessels.⁶¹³ Whether it was the clang of a ladle as it hit the side of a bronze bowl or the chink of glass as it was set down on a marble counter top, each of these materials had its own distinctive ring, tone and pitch.⁶¹⁴

The hearths would also have provided a heat source, a plus point in winter or cooler evenings, warming the draughty open-fronted shops, but perhaps not so desirable in the summer.⁶¹⁵ For staff working at the hearths, constant exposure to intense heat could well have caused problems such as heat stress.⁶¹⁶ Today there are guidelines to avoid such situations, but it was no doubt of little concern to the managers or owners of the bars, who staffed their establishments with slaves. In contrast, customers at least had the choice to move away from the heat source, improving their personal comfort. For those clients who endured basic living conditions, the chance to sit in a warm bar might have been welcome, and would no doubt have helped to promote feelings of well-being.⁶¹⁷

Another important sensory dimension was linked to the operational practices. As Foss notes, 'meals in Roman society were important temporal markers that helped to define the passage of a day' (Fig. 7.1).⁶¹⁸

⁶¹¹ Potter, "Scent of Roman Dining," 125.

⁶¹² Sid. Apoll. Epist. 8.11.3.

⁶¹³ Packer, "Inns at Pompeii," 48. For a full list of objects found in the bar, see NSc 1912, 113–20.

⁶¹⁴ Cooking vessels, see S. Tassinari, *Il Vasellame Bronzeo Di Pompei* (Rome: 'L'Erma' di Bretschneider, 1993). Also, Banducci, "Tastes of Roman Italy," 133–36.

⁶¹⁵ On climate, see M. McCormic et al., "Climate Change during and after the Roman Empire: Reconstructing the Past from Scientific and Historical Evidence," *Journal of Interdisciplinary History* 43, no. 2 (Autumn, 2012): 169–220, https://doi.org/10.1162/JINH_a_00379.

⁶¹⁶ Health and Safety Executive, "Heat Stress," accessed August 6, 2018, http://www.hse.gov.uk/temperature/heatstress.

⁶¹⁷ For heating, see Croom, Running the Roman Home, 42-43.

⁶¹⁸ Foss, "Kitchens and dining rooms," 27.

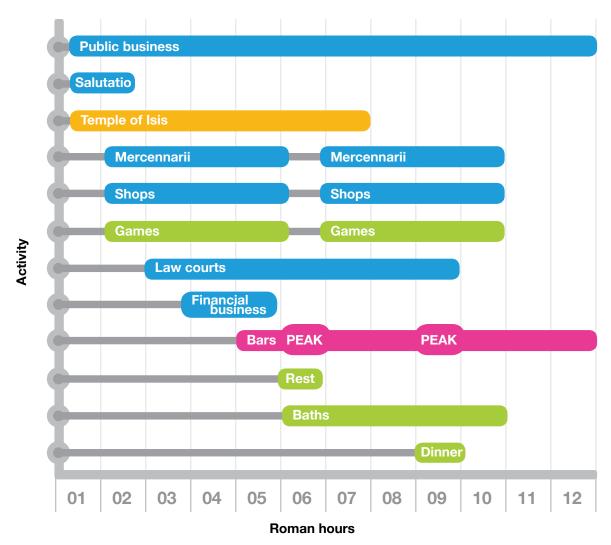


Fig. 7.1 The operation of the bars in context with the Roman day (after Laurence).

Therefore, the smells and sounds from the hearths would be most prominent at certain times. Lunch (*prandium*) was eaten at around noon, and the main meal of the day (*cena*) followed a trip to the baths, beginning towards the end of the eighth hour in winter or the ninth hour in summer. However, for the poorer classes, labourers and slaves who had less control over their free time, such rigid timings would not have been possible. The ancient sources suggest that lunch was a light, quick meal, perhaps well suited to bread and *pulmentarium* (see p.202). As the main meal of the day, *cena* would have been more substantial, which suggests that kitchen aromas varied according to the time of day. Seasonality of foods would also have played a part in what produce was available, and so would affect the resulting aromas.

⁶¹⁹ Ibid., 27–28; Balsdon, Life and Leisure, 20, 25, 33; Carcopino, Daily Life, 288.

⁶²⁰ R. Laurence, Roman Passions: A History of Pleasure in Imperial Rome (London: Continuum, 2009), 66.

⁶²¹ Hor. Sat. 1.6.127-128; Plin. Ep. 3.5.10-11; Plaut. Pers. 104-105; Patrick Faas, Around the Roman Table (London: Macmillan, 2003),, 40. Giacosa, A Taste of Ancient Rome, 2.

⁶²² Faas, Around the Roman Table, 40-41. Giacosa, A Taste of Ancient Rome, 3.

⁶²³ Betts, "The Multivalency of Sensory Artefacts," 36–37.

Cooking up a stink

But what were the smells that greeted customers as they approached a Roman bar and what did the goods on offer taste like?⁶²⁴ To try to answer these questions, I first had to establish what foods were sold in the bars.⁶²⁵ Using the data amassed from the literature search along with iconographic material, I built up a picture of not only what a bar menu offered, but also the attitudes expressed about some of these foodstuffs. Despite the negative comments voiced by the elite about these 'greasy cookshops', it seems that the food in the bars did not always get a bad press.⁶²⁶ In Apuleius' *Metamorphoses* (second century CE), we hear that such establishments were considered to be places where you might get a 'good dinner'.⁶²⁷ However, according to the Roman poet Lucilius, writing in the second century BCE, the *caupona* sold simple fare, 'no oyster, no purple fish, no giant mussel, no asparaguses'.⁶²⁸ One of the reasons the elite might have been so disparaging about what was on offer at the bars was because of their attitudes towards food generally. In comparison with the 'simple fare' of the poorer classes, the elite ate highly spiced and perfumed cuisine.⁶²⁹ As Toner points out, the non-elite would have inhabited a very different sensory world from their 'superiors'.⁶³⁰ Indeed, while the elite looked down their noses at the eating houses, the non-elite may well have had little good to say about the fancy foods consumed by the upper classes.

The foodstuffs

Although the search through the ancient evidence attests to a fairly small selection of foodstuffs being sold in the bars, there are some interesting attitudes (mostly from the elite) towards their characteristics.⁶³¹ These opinions are often telling and reveal more than just what something smelt or tasted like, they indicate how certain foods were culturally linked to class.⁶³² For example, we find some fairly strong and often negative reactions to some of the more odoriferous foods.

Pungent vegetables: Two such examples are onion and garlic (Fig. 7.2). 633 These were often paired

⁶²⁴ Flavours profiles, see Paulas, "Tastes of the Extraordinary," 220–23. For physiological discussion of the tongue, see K. C. Rudolph, "Introduction," in Rudolph, *Taste*, 7–10.

⁶²⁵ Bar food, see DeFelice, *Roman Hospitality*, 32–34; Ellis, "Eating and Drinking Out," 108–11; Ellis, *Roman Retail Revolution*, 228–38; Giacosa, *A Taste of Ancient Rome*, 207–10.

⁶²⁶ Hor. Epist. I.14.21.

⁶²⁷ Apul. Met. 1.7.23, trans. Kenney, 2004.

⁶²⁸ Lucil. 3.128.

⁶²⁹ Toner, Popular Culture, 132.

⁶³⁰ Ibid., 123.

⁶³¹ Absence of evidence is, of course, not evidence of absence, and this list is ongoing.

⁶³² For aromas in upper-class dining, see A. Dalby, *Empire of Pleasures: Luxury and Indulgence in the Roman World* (London: Routledge, 2000), 244–47.

⁶³³ Onion and garlic finds at Herculaneum, see F. G. Meyer, "Carbonized food plants of Pompeii, Herculaneum, and the Villa at Torre Annunziata," *Economic Botany* 34, no. 4 (October, 1980): 414–16, https://doi.org/10.1007/BF02858317. Cultivation, see Columella, *Rust.* XI.3.16.

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Fig. 7.2 Two men gutting a small animal, perhaps a fawn. To the left, a metal tray with a selection of ingredients, including spices and a bulb of garlic (digital image courtesy of the Getty's Open Content Program).

together and both are described as giving an 'offensive smell to the breath'. Varro, writing in the first century BCE, notes that the Romans' forefathers 'stank' of garlic and onion, and Columella (first century CE) associates them with 'stinking exhalations'. Some varieties of leeks — included in the list of provisions in the bar at IX.7.25 — also seem to have had a bad reputation, as Martial cautions...

When you have eaten the strong-smelling shoots of argentine leek, give your kisses closed. As to the taste, garlic is described as having a pungent flavour, and, depending on where they were from, onions might be 'so sweet, that they are eaten raw' or have a 'bitter and unpleasant' taste. But onions could also have a powerful effect on the body in the form of reflexive tears, made in response to irritants to the eye. This reaction is caused by the trigeminal nerve (which runs throughout the face and nose), which is also responsible for sneezes as a result of smelling pepper, a common ingredient in Roman cooking. For the slaves and cooks, preparing onion-based dishes would not have been a pleasant chore, and 2,000 years on we still experience the same discomfort (Fig. 7.3).

Although onion and garlic did not go down well with the elite, garlic — associated with lower-class food

⁶³⁴ Plin. HN, 19.34, trans. H. Rackham, 1950. See also Hor. Epod. 3.

⁶³⁵ Varro. Sat. *Men.* 63; Columella, *Rust.* 9.14.3. M. Heilmeyer, *Ancient Herbs* (Los Angeles: Getty Publications, 2007), 52;

⁶³⁶ Mart. 13.18, trans. D. R. Shackleton Bailey, 2006.

⁶³⁷ Ath. 2.67.

⁶³⁸ Lucil. 216W; Naev. fr. com. 20W; Ennius, Satires, 12-13W. For the effects of garlic and onion, see E. Block, Garlic and Other Alliums: The Lore and The Science (Cambridge: Royal Society Of Chemistry, 2010), for onions as irritants causing tears see especially 76–77.

⁶³⁹ R. S. Herz, "I Know What I Like: Understanding Odor Preferences," in Drobnick, Smell Culture, 193.

— was viewed by one poor farmer as part of a tasty meal.⁶⁴⁰ In a poem attributed to Virgil, the recipe for *moretum* is noted, the basic ingredients include a small piece of cheese and four heads of garlic (around 50 cloves).⁶⁴¹ That these pungent foodstuffs were not part of the elite diet seems to be backed up in the cookbook attributed to Apicius, which was aimed at upper-class dining.⁶⁴² In it, onions feature in dressings or accompaniments to dishes but not as vegetables in their own right, and garlic is mentioned only twice.⁶⁴³ Considering the slightly mixed, seemingly class-based, opinions regarding these two smelly foodstuffs, it is anyone's guess what Gnaeus Helvius Sabinus thought about the supporters who penned this graffito in Pompeii.

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'The garlic sellers ask you to vote for Gnaeus Helvius Sabinus'⁶⁴⁴

Fig. 7.3 Terracotta figure of a slave preparing food in a mortarium. Onion may well be the cause of him rubbing his eyes. Made in Egypt, second century CE (image: British Museum).

For many Romans, the smell of these foods drifting out of the bars would have been just as tempting as we find them today as we pass by food stalls in markets. In fact, these odours travel particularly well even without a breeze in the air. Tests conducted in a still environment found that the smell could travel up to 6.7m and the sound of them frying reached 64dB rising to 66dB when stirred.⁶⁴⁵

Meat and poultry: Various types of meat and poultry are attested to being sold in the bars, for example, tripe, liver and 'lean' thrushes cooked over a fire.⁶⁴⁶ The Roman biographer Suetonius, writing in the early second century CE, describes how Vitellius would 'devour cuts of meat fetched smoking hot from wayside cookshops (*popinas*).⁶⁴⁷ What type of meat this was is unclear, but beef tended to enjoy a higher status than

⁶⁴⁰ Toner, Popular Culture, 133.

⁶⁴¹ A. Dalby and S. Grainger, *The Classical Cookbook* (London: British Museum Press, 2012), 104–05.

⁶⁴² A. Dalby, *Food in the Ancient World from A-Z*. The Ancient World from A to Z. (London: Routledge, 2003) 17.

⁶⁴³ D. Brothwell and P. Brothwell, *Food in Antiquity: A Survey of the Diet of Early Peoples* (London: Thames & Hudson, 1969), 109.

⁶⁴⁴ CIL IV 3485.

⁶⁴⁵ The distance from the source (frying onion and garlic) was 30cm. Recording conditions: Wind direction: North, Wind speed: 20.5kph, Temperature: 22°C, Weather conditions: Clear.

⁶⁴⁶ Juv. 11.81; Macrob. Sat. 17.14.1; Hor. Sat. 1.5.50.

⁶⁴⁷ Suet. Vit. 13.3.6., trans. R. Graves, 2007, Penguin.

pork, so may not have been a common feature of bar-room fare. 648 Pork on the other hand was enjoyed by all classes and, according to MacKinnon (who specializes in zooarchaeology), it was the meat of choice for Romans in many areas. 649 Indeed, of the pig, the first century CE author of the *Natural History*, Pliny tells us,

Nor does any animal supply a larger number of materials for an eating-house (ganeae): they have almost fifty flavours, whereas all other meats have one each. 650

Two *lararium* paintings reveal how these 'number of materials' might have been prepared and cooked.



Fig. 7.4 Lararium in the kitchen at IX.9.c Pompeii, showing pig products.

One at Pompeii shows a pig's head, three pieces of meat on a skewer and two sausages (Fig. 7.4).⁶⁵¹ Another, very similar painting, also includes a ham.⁶⁵² These different cuts of meat would have required different cooking methods, ranging from boiling to grilling. Each method would have resulted in the meat having its own distinct aroma, taste and texture, as well as providing different cooking sounds. A particularly popular pig product was the sausage.⁶⁵³ Various types are mentioned in the ancient literature as being on offer at the bars, each providing a distinctive taste and aroma. These included the *hillis*,⁶⁵⁴ a smoked sausage, the *botelus* — which Apicius tells us was cooked in broth and wine⁶⁵⁵ — and the *tomacla* 'smoking sausages' that were toted around the 'stuffy bistros (*popinis*).'⁶⁵⁶ The most popular type of sausage, however, was the *lucanian*, along with chopped

⁶⁴⁸ Pork in the Roman diet, see Banducci, "Tastes of Roman Italy," 127–29. For meat consumption, see MacKinnon, "Tastes of Meat," 161–78.

⁶⁴⁹ J. F. Donahue, *Food and Drink in Antiquity: Readings from the Graeco-Roman World: A Sourcebook* (London: Bloomsbury Academic, 2015), 88–90; MacKinnon, "Tastes of Meat," 166.

⁶⁵⁰ Plin. HN. 8.77, trans. H. Rackham, 1983.

⁶⁵¹ IX.9.c Pompeii; Boyce, *Corpus of the Lararia*, 93, no. 468, & Pl:22,1. See also I.13.2 Pompeii, which has a similar painting in the kitchen, Fröhlich, *Lararien*, L29, T.28,1 and 28,2; *PPM* II, 876-880.

⁶⁵² Villa C, Terzigno. See Roberts, *Life and Death*, 250–51, Fig. 302. See also the kitchen at I.13.2 Pompeii.

⁶⁵³ For an overview, see J. P. Alcock, "Fundolus or Botulus: Sausages in the Classical World," in *Cured, Smoked, and Fermented: Proceedings of the Oxford Symposium on Food and Cookery 2010*, ed. H. Sabieri (Totnes; Prospect Books, 2011), 40–49.

⁶⁵⁴ Hor. Sat. 2.4.59-62.

⁶⁵⁵ Sid. Apoll. Epist, 8.11.3; Apicius. II.3.60.

⁶⁵⁶ Mart. 1.41.10.

pork, fragrant ingredients included crushed pepper, cumin, savory, rue, parsley and laurel berries.⁶⁵⁷ Once made, a further subtle layer of fragrance would have come from the smoking process.⁶⁵⁸ Indeed, this type of sausage may be depicted in Figs 3.5 and 7.4.

It seems that, unlike the malodorous onion and garlic, the cooking odours from pork were perceived as pleasant by both elite and non-elite. But the fly in the ointment comes from the Greek physician Galen (second to third century CE), who sounds a somewhat perplexing note of caution, claiming that 'rascally innkeepers' served up human flesh in place of pork. Whether true or not (it is probably an urban myth), this jibe puts the bars back in their place as establishments to be viewed with caution. 660

A further consideration to bear in mind when assessing sensory profiles is that the smell and taste of meat could be enhanced and changed according to the manner in which it was prepared and cooked, as MacKinnon's study highlights. For example, marinating, smoking, brining and drying could transform a bland cut of meat while aiding preservation in a world without refrigeration. Using a particular mixture of marinade, with a 'secret' recipe handed down through generations (as is often the case today for barbecue rubs or smoking techniques), could be particularly effective in providing flavours unique to a specific bar. He way in which meat was cooked — grilled, roasted, fried, boiled or stewed — would add an extra dimension to the taste, as well as to the appearance and smell. The first three of these cooking methods readily induce the Maillard reaction, a thermally driven sequence of complex reactions between proteins and sugars that browns the meat and creates rich flavouring. The cooking time affects the texture of the meat, making it either succulent and melt-in-the-mouth or dry and chewy. Boiling and stewing produce a different set of qualities, allowing the meat to cook down in its own juices giving it a moist and tender texture. Boiling or stewing could also allow for one-pot meals, particularly useful for a commercial outlet. Such meals would also have

⁶⁵⁷ Cic. Fam. 9.16.8; Mart. 13.35 and 4.46.

⁶⁵⁸ Apicius. 2.4; For a modern recipe, see Dalby and Grainger, Classical Cookbook (2012), 108-09.

⁶⁵⁹ Gal. AF, 6.663, trans. O. Powell, 2003, CUP.

⁶⁶⁰ Cannibalism, see Juv. 15; M. Squire, "Giant Questions: Dining with Polyphemus at Sperlonga and Baiae", *Apollo* 157, no. 497 (2003): 29–37.

⁶⁶¹ Mackinnon, "Tastes of Meat," 171. For example, Apicius, 380 Smoked Pig à la Trajanus; Apicius, 363, Kid or Lamb à la Tarpeius (marinated); Apicius, 256, Grilled Sow's Womb (brine).

⁶⁶² For example the spices used for fried chicken at the American fast-food restaurant chain Kentucky Fried Chicken. For smell dispersal, see Drobnick, "Eating Nothing", 345–46.

⁶⁶³ Mackinnon, "Tastes of Meat," 174. Flavour, see M. E. Bailey, "Maillard Reactions and Meat Flavour Development," in *Flavor of Meat and Meat Products*, ed. F. Shahidi (Boston: Springer, 1994), 153–73, https://doi.org/10.1007/978-1-4615-2177-8_9. Aroma, see K. H. Wong, S. A. Aziz & S. Mohamed "Sensory aroma from Maillard reaction of individual and combinations of amino acids with glucose in acidic conditions," *International Journal of Food Science and Technology* 43, no. 9 (September, 2008): 1512–519, https://doi.org/10.1111/j.1365-2621.2006.01445.

⁶⁶⁴ Mackinnon, "Tastes of Meat," 175.

worked well as a take-away option — transported in a deep bowl brought from home and consumed at leisure. Indeed, there is evidence to suggest that wine was bought from the bars for home consumption, so food too may have been sold in this way. These different cooking methods also provide different auditory experiences — grilling, roasting and frying produce spitting and sizzling sounds; boiling and stewing generate a gentle pop and gurgle from the simmering food.

Although there may not have been a vast choice of meat items available on a bar menu, the various preparation and cooking methods produced a sensorily diverse experience. We can also begin to see how bars, in an often saturated market, could have developed their own USP by specialising in one particular type of food or preparation method. Such signature foodstuffs would have their own unique aromas, setting one bar out against the rest and perhaps even characterising the smell of a neighbourhood.

Fragrant fish and seafood: Fish may also have been a feature of the bar menu. Seneca talks about one 'notorious' dish served up at a bar that contained oysters, sea urchins, mullet and two kinds of mussel.⁶⁶⁷ This dish is, however, not the norm and scholars have been unable to reach agreement on the availability of fish to the poorer classes.⁶⁶⁸ Its availability would have depended on the proximity to the sea or a river, although its price may well have made it off limits to many.⁶⁶⁹ Whitebait, however, is included in the 'shopping list' at IX.7.24-25 Pompeii and finds of shellfish are recorded at three bars in Pompeii.⁶⁷⁰ Additionally, as Wallace-Hadrill points out, if the findings from the sewer deposits at Herculaneum are anything to go by, the Roman diet was healthy and varied, with plenty of fish and seafood, poultry, eggs and fruit.⁶⁷¹ He argues that the often-

⁶⁶⁵ Plut. Mar. 44.1.

⁶⁶⁶ Sensory marketing, see Drobnick, "Eating Nothing," 345–46.

⁶⁶⁷ Sen. Ep. 95.26-27.

⁶⁶⁸ K. Killgrove and R. H. Tykot, "Food for Rome: A stable isotope investigation of diet in the Imperial period (1st–3rd centuries AD)," *Journal of Anthropological Archaeology* 32, no. 1 (March 2013): 29, https://doi.org/10.1016/j.jaa.2012.08.002; T. Prowsea et al., "Isotopic paleodiet studies of skeletons from the Imperial Roman-age cemetery of Isola Sacra, Rome, Italy," *Journal of Archaeological Science* 31, no. 3 (March 2004): 261, https://doi.org/10.1016/j.jas.2003.08.008. Mackinnon, for example, argues that fish were connected to a higher-status diet, Mackinnon, "Tastes of Meat," 163–64.

⁶⁶⁹ Donahue, *Food and Drink*, 93. For lower class diet, based on isotope data from human skeletons from two Roman cemeteries in Rome, see Killgrove and Tykot, "Food for Rome," 28–38. For an isotopic study of the diet of individuals from the cemetery at Isola Sacra, Ostia, see Prowsea et al., "Isotopic paleodiet studies," 259–72. For Pompeii, see F. D. Pate, R. J. Henneberg and M. Henneberg, "Stable carbon and nitrogen isotope evidence for dietary variability at ancient Pompeii, Italy," *Mediterranean Archaeology and Archaeometry* 16, no. 1, (2016), 127–33, https://doi.org/10.5281/zenodo.35526.

⁶⁷⁰ CIL IV 5380. Ellis, Roman Retail Revolution, 229. Finds of shellfish in storage jars were recorded for the bars at V.4.7, IX.11.12 and one of the bars in Insula VI.16, see M. Borgongino, Archeobotanica: Reperti Vegetali Da Pompei e Dal Territorio Vesuviano (Rome: 'L'Erma' di Bretschneider, 2006), 68, 85; G. Stefani and G. Bonifacio, eds., Cibi e Sapori a Pompei e Dintorni (Pompei: Flavius, 2005), 88 and D. S. Reese, "Fish: Evidence from Specimens, Mosaics, Wall Paintings, and Roman Authors," in Jashemski and Meyer, Natural History of Pompeii.

⁶⁷¹ Findings from the shop drains at Insula VIII.7 Pompeii also included local fish, sea urchins and shellfish, see Ellis, *Roman Retail Revolution*, 233–34. See also, S. J. R. Ellis, and G. Devore, "The Fourth season



Fig. 7.5 The fish shop at IV.5.1 Ostia.

repeated story that working Romans had a dreary diet of pulses and porridge needs some modification.⁶⁷² In light of this evidence, a reassessment of lower-class diet is clearly due.

Today, the odour of fish and seafood divides opinion. In Henshaw's study, the smells from the fish market were described as 'strong, pungent and dominating'. These opinions may well have echoed those of the Romans who passed the fish shops, remains of which can be seen in Ostia (Fig. 7.5). With a lack of decent refrigeration, these smells would have been more prominent than today. The smell of fish could certainly be a powerful irritant, as this passage from Plautus' comic play of the second century BCE, illustrates.

... the fishmongers, who ride here on a jogging, jolting gelding and who offer the people stinking fish whose stench drives all loafers in the arcade out into the market, I'll whack their faces with their fish baskets so that they know what a nuisance they are to the public nose.⁶⁷⁵

But the king of fishy smells has to be *garum*, a condiment made from fermented fish.⁶⁷⁶ It was used extensively in Roman cuisine and was popular with every class from Emperor to slave.⁶⁷⁷ It would therefore have been a staple ingredient in the bars. Martial describes it as 'noble' and 'lordy' *garum*, and for Pliny it was

of Excavations at VIII.7.1-15 and the Porta Sabia at Pompeii: Preliminary Report," *FOLD&R Italy* 146, (2009). 672 Wallace-Hadrill, *Herculaneum*, 285. For the contents of the sewer at Herculaneum, see M. Robinson and E. Rowan, "Roman Food Remains in Archaeology and the Contents of a Roman Sewer at Herculaneum," in Wilkins and Nadeau, *A Companion to Food*, 105–15. S. C. Bisel and J. F. Bisel, "Health and Nutrition at Herculaneum: An Examination of Human Skeletal Remains," in Jashemski and Meyer, *Natural History of Pompeii*, 457–58; Baker, "Tastes and digestion," 153–154.

⁶⁷³ Henshaw, Urban Smellscapes, 88.

⁶⁷⁴ Three in close proximity: IV.5.1, the eastern and western shops and I.14.2, the central shop.

⁶⁷⁵ Plaut. Capt. 814-15, trans. W. de Melo, 2011.

⁶⁷⁶ For a description, see *Geoponica* XX.46.

⁶⁷⁷ Faas, Around the Roman Table, 143; Giacosa, A Taste of Ancient Rome, 27.



Fig. 7.6 The cooking stages in the production of garum.

a 'choice liquor'.⁶⁷⁸ But not everyone was a fan, according to Seneca it was a 'costly extract of poisonous fish' that 'burns up the stomach with its salted putrefaction'.⁶⁷⁹ Amphorae that once contained this controversial sauce are frequent finds at the sites.⁶⁸⁰

It is difficult to pin down exactly what this sauce would have tasted like, but research into the biochemical composition of *garum* has found that its taste profiles paralleled those of modern Asian fish sauces, giving an umami (savoury) taste experience.⁶⁸¹ As this sauce played such a big part in Roman cuisine, I decided to make some, as that was the only way to gain any clear insight into what it might have smelt and tasted like.⁶⁸² Additionally, the preparation process provided the opportunity to see how the mixture and fish aromas developed as it cooked (Fig. 7.6). It has to be said, the smell of the finished product was much more subtle than the unpleasantly strong cooking odour, just a light earthy, fishy aroma with a background hint of herbs. As for the taste, the first hit is of intense salt, then a general fishy flavour that is overtaken by the full force of boiled mackerel — but it is the salt that really lingers. In tests with the public, the smell was far from popular and the strong aroma of the *garum* deterred some people from trying it.⁶⁸³ Interestingly, the local fishmonger

⁶⁷⁸ Mart. XIII.82, XIII.102; Plin. HN. XXXI.93.

⁶⁷⁹ Sen. Ep. 95.25.

⁶⁸⁰ For example, the bar at I.2.5 Ostia, see R. Calza and E. Nash, *Ostia* (Florence: Sansoni, 1959), 79; Pompeii: I.7.8, *CIL* IV 9389; V.2.18-19, *CIL* IV 5679.

⁶⁸¹ M. Smriga et al., "Amino acids and minerals in ancient remnants of fish sauce (garum) sampled in the "Garum Shop" of Pompeii, Italy," *Journal of Food Composition and Analysis* 23, no. 5 (August, 2010): 442–46, https://doi.org/10.1016/j.jfca.2010.03.005. See Baker, "Tastes and Digestion," 142–43. Taste categories, see Rudolph, "Introduction," in Rudolph *Taste*, 4–7.

⁶⁸² I made the 'quick' version, using mackerel, sardines, a sea bass head, a large amount of salt, oregano and water. See Faas, *Around the Roman Table*, 143–45; http://www.coquinaria.nl/english/recipes/garum.htm.

⁶⁸³ Taste tests were conducted as part of a sensory walk for the Being Human Festival in Canterbury, November 2016, Sensory walks around Trajan's Market, Rome, March 2017; and Being Human Summer Festival, London, June 2017. The sample included 54 people.

could not detect the aroma of fish and only commented on the smell of the herbs — a very clear case of habituation to fish smells.⁶⁸⁴ Overall, the modern response to the smell and taste of *garum* nicely illustrates Toner's point (p.188) that such perceptions are culturally influenced.

Piquant relish: Direct evidence for another food sold in the bars comes from a tombstone from Aesernia in south Italy (Fig. 7.7), which depicts a man in a travelling cloak settling his bill with the bar keeper. The inscription lists that he had bread at one as, and dips at 2 asses.⁶⁸⁵ The Latin word used in the inscription, translated here as dips, is pulmentarium, which is defined as 'anything eaten with bread, a relish'. 686 It is difficult to pin down exactly what this was but it seems to be a soup or puree made from vegetables, a recipe for which can be found in De Re Coquinaria of Apicius.⁶⁸⁷ For the main ingredient, we are told that all green vegetables are suitable, and it also includes beets, leeks, pepper and cumin. Depending on the combination of ingredients it seems that this could be a pungent and tasty relish. Fruit REDACTED also seems to have been used in pulmentarium, as Seneca notes 'if I have bread, I use figs as a relish (pulmentario)'.688 This sort of snack seems perfect for the bars, offering either a sweet or savoury option. It would have been quick to put together and fast to eat for those on the move. Bread was a staple of the Roman diet, and for many the smell of it baking is considered to be pleasant — in a modern study,

Fig. 7.7 Tombstone from Aesernia showing a customer settling his bill. Late Republican–Early Imperial period (image: ©RMN-Grand Palais (Musée du Louvre)/ Hervé Lewandowski).

41% of people rated it as their favourite aroma. 689 To

compare modern bread with the ancient equivalent,

I baked a loaf based on the recipe in Cato the Elder's

⁶⁸⁴ Henshaw, Urban Smellscapes, 29.

⁶⁸⁵ *CIL* IX 2689. *CIL* IV 5380 found at IX.7.24-25 Pompeii, mentions bread, plain bread and bread for slaves, suggesting the different qualities sold.

⁶⁸⁶ C. T. Lewis and C. Short, A Latin Dictionary (via www.perseus.tufts.edu), accessed January 19, 2017.

⁶⁸⁷ Apicius 3.2.67. See also Hor. Epist. 2.2; Juv. 3.7.

⁶⁸⁸ Sen. Epist. 87.3. Also Plin. HN. 15.17, 15.58.

⁶⁸⁹ Henshaw, Urban Smellscapes, 34.

agricultural handbook (Fig. 7.8).⁶⁹⁰ The smell of the bread was a lot subtler than that of the modern version and the texture was more dense, making for a slightly heavy loaf; nevertheless the taste was delicious.

Piecing together both the position of the hearths and the types of cooking smells that would have been encountered, it is possible to start mapping these features to build up a picture of the sensory experience. The mapped floor plans help to visualise at what point smells



Fig. 7.8 Loaf of bread made using Cato's recipe.

and sounds were more prominent, and they highlight how the journey through the various establishments differ. To quantify the results more effectively, the main bar rooms have been sectioned into four zones of equal depth (starting with zone 1 at the front of the shop) to topographically locate the primary smellmarks (Figs 7.9, 7.10).

For the majority of customers at Pompeii (and to a lesser extent Herculaneum), the smells and sounds of the hearths were most prominent in zones 2 and 3, and would have been experienced by those who had crossed the boundary threshold to become part of the bar's environment (Figs 7.9a, 7.10a and 7.11). Also prevalent, but not seen at Ostia, was the hearth location in zone 1 at the front of shop, where customers approaching the counter would get a more immediate hit from the sounds and smells of cooking (Figs 7.9b, c, 7.10c). At the other extreme, the more discreet positioning of the hearths in rooms away from the service area made for minimal contact with the associated sounds and odours, providing a configuration that was probably more acceptable to elite sensibilities (Figs 7.10d also 7.17d).

Other foods

As well as smellmarks at the points where food was cooked, other areas around the establishments would also have been sites for sensory food encounters. One of the most obvious places would have been the counter surface, where service and preparation took place. The data reveal that much of the food on offer in the bars would not have needed to have been cooked, and some of this may have been stored in, and served from, the *dolia* in the counter. According to Packer, foods such as grains, nuts, dried or smoked fruits or vegetables

 $^{690\,}$ Recipe at Pass the Garum, http://pass-the-garum.blogspot.com/2012/10/moretum.html. Cato, Agr. 74.

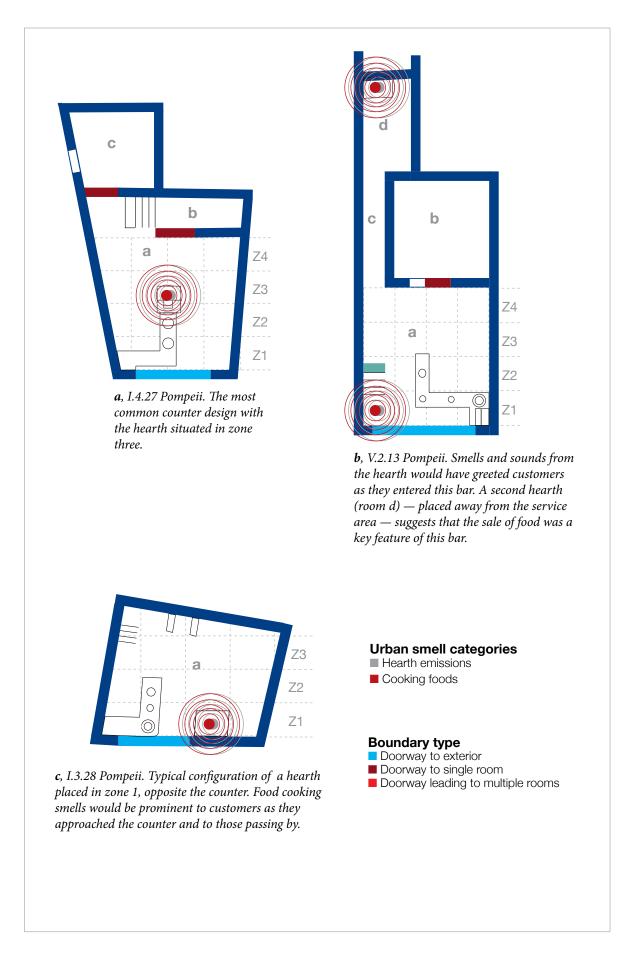


Fig. 7.9 Typical examples of the location of fuel and cooking smells, Pompeii.

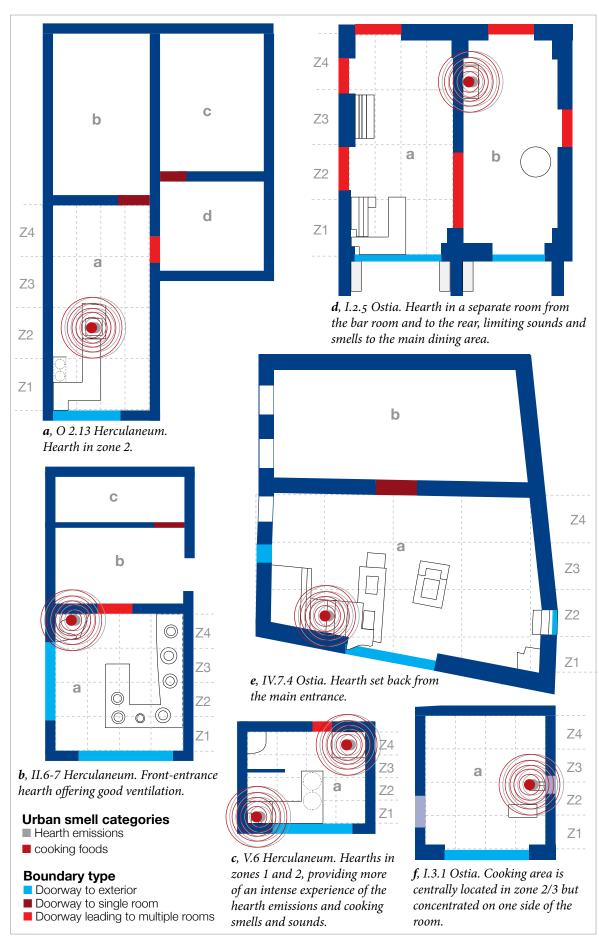


Fig. 7.10 Typical examples of the location of cooking smells, Herculaneum and Ostia.

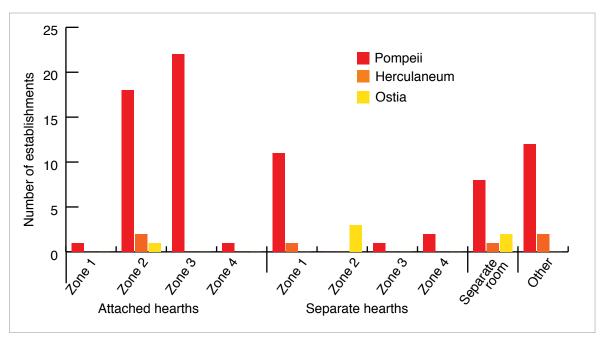


Fig. 7.11 Location of hearths and cooking smells and sounds within the bars.

may well have been stored in the *dolia*. As such, their positioning within the counter would be significant from a sensory point of view (Fig. 7.12).⁶⁹¹ As a consequence, customers approaching the counter might have encountered the aromas — although often subtle — of the goods stored within.⁶⁹² Therefore, where you stood to be served made a difference to the olfactory experience. For the remaining 35% of counters at Pompeii and Herculaneum, along with all of the counters at Ostia, that do not contain *dolia*, this layer of the smellscape would be non-existent.

As seen in many modern shops, the counter may well have been used to display other goods to tempt the customers. Two items ripe for such a display, and staples of the Roman diet, were perhaps sold, according to Apuleius' *Metamorphoses* (second century CE), by travelling salesmen who made their living selling to the bars.⁶⁹³

I deal in honey and cheese and that sort of innkeepers' merchandise. 694

Honey was widely used as a sweetener for wine (see p.211), but it was also used in many dishes for the same reason.⁶⁹⁵ Its flavour and aroma differed according to which flowers had been available to the bees. However, it

⁶⁹¹ Packer, "Inns at Pompeii," 48.

⁶⁹² Lids on dolia, see Ellis, "The Pompeian Bar," 56.

⁶⁹³ Street traders, see Holleran, *Shopping in Ancient Rome*, for a definition of the terms 196, generally 194–231; C. Xavier, "Commercants itinerants et marchands sedentaires dans l'Occident romain," in *Mercati permanenti e mercati periodici nel mondo romano: atti degli Incontri capresi di storia dell'economia antica*, ed. E. Lo Cascio (Bari: Edipuglia, 2000), 149–60.

⁶⁹⁴ Apul. Met. 1.5, trans. J. A. Hanson, 1996.

⁶⁹⁵ Donahue, Food and Drink, 97.

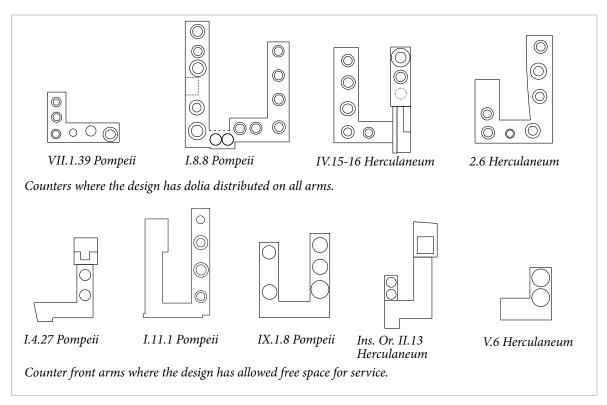


Fig. 7.12 Dolia distribution in counters and its influence on the potential for sensory interaction.

often had a smoky taste from the smoke used to drive away the bees when it was collected from the hive.⁶⁹⁶ As well as honey, various types of cheese are mentioned in the sources as being sold in the bars. These include little cheeses (*caseoli*) and a soft cheese (*casium molle*),⁶⁹⁷ which could have been displayed on the counter on plates with the honey in covered jars. The ancient sources provide little detailed information about the types of cheeses produced, and recipes often simply call for goats' or sheep's cheese, both of which possess varying degrees of piquancy in flavour and smell.⁶⁹⁸ Smoked cheese was also popular and Columella mentions that some cheeses were soaked in brine, which would have altered their smell.⁶⁹⁹ The intensity of the aroma may also have been affected by where the cheese was stored, if close to a heat source, the smell would tend to be stronger. Cheese and honey were often eaten together and would have produced a tempting combination of taste and aroma.⁷⁰⁰

Fragrant fruits would also have permeated the smellscape of the bars.⁷⁰¹ Dates, for example, are included in the list in the atrium next to the bar at IX.7.24-25, and plums, apples, mulberries and grapes are included in

⁶⁹⁶ Dalby, Food in the Ancient World, 179.

⁶⁹⁷ CIL IV 5380; App. Virg. Copa.

⁶⁹⁸ Dalby and Grainger, Classical Cookbook (2012), 32-33.

⁶⁹⁹ For the cheese-making process, see Columella, Rust. VII.

⁷⁰⁰ Dalby, Food in the Ancient World, 81.

⁷⁰¹ Archaeological remains of fruits such as pomegranate, grape, fig and pear were found at I.9.12 Pompeii (with attached bar at I.9.11), M. Fulford and A. Wallace-Hadrill, "Towards a history of pre-Roman Pompeii: excavations beneath the House of Amarantus (I.9.11-12)," *Papers of the British School at Rome* 67 (November 1999): 97–98, https://doi.org/10.1017/S0068246200004529.

the fare on offer at one hostelry.⁷⁰² The fresco in the bar at I.2.5 Ostia, may also depict fruit, which, according to some commentators, includes peaches and melons (see p.143). These foods, unlike the more pungent cooking smells, would have offered a much more subtle layer of fragrance to the bars. And, unlike onion, garlic and sausages, which would have filled the entire room with their aromas, foods such as cheese, fruit and honey would have been experienced only when in close proximity or when staff were ladling dried goods out for purchase.

In Vino Veritas

To wash down the food, a variety of wines was on offer at the bars.⁷⁰³ They varied in price (reflecting their quality), as a sign from Herculaneum illustrates (Fig. 7.13). It shows four differently coloured flasks with prices ranging from two to four *asses* per sextarius.⁷⁰⁴ A graffito from Pompeii continues the theme:

Hedone says, "You can drink here for one *as*, if you give two, you will drink better; if you give four, you will drink Falernian."⁷⁰⁵

A comprehensive list of maximum wine prices can be found in the edict of Diocletian.⁷⁰⁶ At the bottom of the scale, 'ordinary wine' is eight *denari* for one sextarius, while a number of wines (including Falernian) are 30 *denar*i for a sextarius. Although too late in date to be relevant to Pompeii and Herculaneum (the edict was issued in 301 CE), the list illustrates not only the large price differentiation between 'ordinary' and top-quality wine, but also the effect of inflation.⁷⁰⁷ As the price edict suggests, Falernian was a prized tipple and it was

⁷⁰² CIL IV 5380; App. Virg. Copa.

⁷⁰³ For a discussion of viticulture, see N. Purcell, "Wine and Wealth in Ancient Italy," *The Journal of Roman Studies* 75 (1985): 1–19, https://doi.org/10.2307/300648. For an overview of wine, see C. T. Seltman, *Wine in the Ancient World* (London: Routledge & Kegan Paul, 1957). For the characteristics of wine, see Boulay, "Tastes of Wine," 200–10.

⁷⁰⁴ B. Brennan, *Herculaneum: A Sourcebook* (Sydney: Ancient History Seminars, 2012), 92. A sextarius = 0.545 litre/just under 1 pint, A. Cooley and M. G. L. Cooley, *Pompeii and Herculaneum: A Sourcebook* (London: Routledge, 2014), 237.

⁷⁰⁵ Found at VII.2.44 Pompeii, CIL IV 1679; Trans. Cooley, Pompeii, 162. See also Della Corte, Case Ed Abitanti, 180.

⁷⁰⁶ For the price edict, see R. C. Allen, "How Prosperous were the Romans?: Evidence from Diocletian's Price Edict (AD 301)," in Bowman and Wilson, *Quantifying the Roman Economy*. For an overview of the price edict, see H. Michell, "The Edict of Diocletian: A Study of Price Fixing in the Roman Empire," *The Canadian Journal of Economics and Political Science/Revue canadienned'Economique et de Science politique* 13, no. 1 (February, 1947): 1–12, https://doi.org/10.2307/137598. For prices, see R. Duncan-Jones, *The Economy of the Roman Empire: Quantitative Studies*, (Cambridge: CUP, 1982); R. Duncan-Jones, *Structure and Scale in the Roman Economy* (Cambridge: CUP, 1990); W. Scheidel and S. von Reden, eds., *The Ancient Economy* (Edinburgh: Edinburgh University Press, 2002); W. Scheidel, ed., *The Cambridge Companion to the Roman Economy* (Cambridge: CUP, 2012).

⁷⁰⁷ Donahue, *Food and Drink*, 79–80. For a discussion of inflation and the price edict, see A. Wassink, "Inflation and Financial Policy under the Roman Empire to the Price Edict of 301 A.D.," *Historia: Zeitschrift für Alte Geschichte* 40, no. 4 (1991): 465–93.



Fig. 7.13 Sign from Herculaneum showing the different prices of wine available.

much praised by the ancient authors.⁷⁰⁸ In the back room of the bar at VI.10.1 Pompeii, another variety of wine is mentioned. Pictured on the wall, a man holds out his cup for a refill, saying 'Another cup of Setinian'.⁷⁰⁹ This was also a popular variety, described by Strabo as 'exceedingly good', he ranked it along with the 'widely famed' Falernian.⁷¹⁰

As we have seen, various grades of wine were available and encountering wine of an inferior quality could understandably result in some people becoming hot under the collar, as this passage from Martial suggests.

For your lady Setine is strained to set snow on fire: we drink the dingy poison of a Corsican jar.⁷¹¹

But what did these wines actually taste and smell like? Generally, Pliny distinguishes three types of wine, the rough (*austerum*), the sweet (*dulce*), and the thin (*tenue*).⁷¹² The Greek author Athenaeus, who wrote in the third century CE, provides much important information on dining, including the characteristics of numerous Italian wines, which he notes range from earthy, dry, acidic and sweet to rich-tasting.⁷¹³

Roman wine was much stronger than the wine we drink today, so it was diluted with either cold or warmed water (three parts water to one part wine).⁷¹⁴ This practice is illustrated in a painting in the back room of the bar at VI.10.1 Pompeii, where a soldier holds out his cup to a server, inscribed above are the words 'Give a

⁷⁰⁸ Plin. HN. 14.8; Strab. V.4.3.

⁷⁰⁹ CIL IV 1292, Cooley, Pompeii, 162.

⁷¹⁰ Strab. V.3.6.

⁷¹¹ Mart. IX.2, trans. D. R. Shackleton Bailey, 2006. Also, Juv. 4.24-37. Also, Vatican (likened to vinegar) Mart. XIV.118; Mart. X.45.

⁷¹² Plin. HN. 14.19.

⁷¹³ Ath. 1.26-27.

⁷¹⁴ Giacosa, *A Taste of Ancient Rome*, 193. See also, *CIL* IV 1291; *CIL* XIV 2112; Apul. *Met.* II 15-16; Mart. 1. 11; Plin. *HN*. 14.8.

drop of cold' (Fig. 7.14).⁷¹⁵ Another rather nice example comes from Roman Germany where 'easy on the water' has been painted onto a drinking vessel.⁷¹⁶ Overly diluted wine, however, did not go down well, as we hear from one disgruntled customer in this graffito from Pompeii.⁷¹⁷

I hope that your very deceitful practices ruin you, innkeeper. You sell us water and drink the pure wine yourself.⁷¹⁸

The ratio of water to wine was important as it would have diluted not only the taste and smell of the wine but also its potency. Overall, the Romans appear to



Fig. 7.14 Fresco on which has been inscribed 'give a drop of cold' from VI.10.1 Pompeii.

have had a wide range of wines to choose from. Indeed, some of the bars offered wines from far and wide. For example, archaeological evidence attests to wines from the Aegean,⁷¹⁹ Crete, and even one wine that can be identified by the Greek name Teuponos, a known producer of the sweet Lyttian wine from Crete.⁷²⁰

The spice of life

As well as the natural character of the wine (good or bad), the Romans often added spices, which would have changed both the flavour and bouquet. For example, Hermansen claims that one such mixture called *conditum* had been a popular drink for centuries and that it was the 'social drink of the bars'. Indeed, it was generally known in Pliny the Elder's time — first century CE — at least.

and this is also how at the present day what some people call savoury wines and others peppered wines are made by adding pepper and honey.⁷²²

⁷¹⁵ CIL IV 1291; Helbig and Donner-von Richter, Wandgemälde Der Vom Vesuv, 369.

⁷¹⁶ Dunbabin, Roman Banquet, 180.

⁷¹⁷ Found on a wall at I.2.24 Pompeii. The building is identified as a *caupona* by Mau, but is not included in Ellis's Gazetteer, Mau and Kelsey, *Pompeii*, 404.

⁷¹⁸ CIL IV 3948, trans. from J. Shelton, As the Romans Did: A Sourcebook in Roman Social History (New York: OUP USA, 1998), 327.

⁷¹⁹ Pompeii I.9.4, J. Berry, "The Conditions of Domestic Life in Pompeii in AD 79: A Case Study of Houses 11 and 12, Insula 9, Region I," *Papers of the British School at Rome* 65 (1997): 113. Herculaneum V.6, M. Pagano, *Ercolano: Itinerario Archeologico Ragionato* (Torre del Greco: T&M, 1997), 60–61.

⁷²⁰ Wallace-Hadrill, *Herculaneum*, 280. Ellis, "The Pompeian Bar," 258. Castiglione Morelli del Franco and Vitale, "L'insula 8 della Regio I", 196.

⁷²¹ Hermansen, Ostia, 190.

⁷²² Plin. HN. 14.19, trans. H. Rackham, 1950.

The drink is also included in Apicius' recipe book, which is thought to have been compiled in the fourth century CE.⁷²³ This suggests that *conditum* was still consumed at this time and that it would have been a feature of the bars at Pompeii, Herculaneum and Ostia. To get an insight into how this mixture might have tasted and smelt, I tested out Apicius' recipe.⁷²⁴ The addition of honey gives the wine a sweet and syrupy smooth taste, while the smell of the honey mixes with the aroma of the wine to produce a pleasant scent as you sip. The spicy pepper gives an added kick that is surprisingly agreeable. In taste tests, all who tried this mixture agreed that it smelt and tasted delicious.⁷²⁵

The preparation of spiced wine would have added to the soundscape of the bars. For example, an essential ingredient of *conditum* was pepper, and this would have needed to be crushed, resulting in the sound of cracking and crunching peppercorns along with the clink of the pestle as it made contact with the *mortarium*. Such sounds ringing out from the bars would have been commonplace as *mortaria* would have been used to crush or mix the various herbs and spices that were added to the food. Indeed, a number of *mortaria* have been found in the bars at Ostia, some of which can be seen attached to the counters (Fig. 3.16). Other fragrant seasonings for the wine would include herbs such as absinthium and cumin, roots of irises and gladioli, as well as floral essences including violets and roses. These seasonings would also perfume the bars, especially when they were prepared in the pestle and mortar.

Another drink that was popular with the lower classes (and also the Roman army) was posca. This was made of sour wine or vinegar mixed with water and sometimes flavoured with spices and/or honey.⁷²⁹ I made a sample to test.⁷³⁰ Unlike the sweet and pleasant aromas of *conditum*, unsurprisingly, the posca mixture smelt overwhelmingly of acrid vinegar, even with the honey included. However, it you can get over the unpleasant smell, the taste is not bad at all. It is refreshing and rather resembles the flavour of a sharp lemon drink. In a taste test, participants were pleasantly surprised that the smell did not reflect the pleasantly tart flavour.⁷³¹ Of course, it is worth remembering that the taste of wine changes when accompanied by food, and that different foods can alter the flavour of the wine. Therefore, to get a fully rounded culinary experience, the wines need to

⁷²³ Hornblower and Spawforth, Oxford Classical Dictionary, 121.

⁷²⁴ Based on Dalby and Grainger recipe, I used a medium, dry white Italian wine. Dalby and Grainger, *Classical Cookbook* (London: British Museum Press, 1996), 103; Apicius. 1.1.

⁷²⁵ See note 683.

⁷²⁶ For the herbs and spices used in cooking, see Faas, Around the Roman Table, 151-66.

⁷²⁷ Attached to the counters at I.2.5 and I.12.10; Finds at IV.7.2, I.16.1.

⁷²⁸ Giacosa, A Taste of Ancient Rome, 195.

⁷²⁹ Faas, Around the Roman Table, 122.

⁷³⁰ Posca recipe, http://pass-the-garum.blogspot.co.uk/2013/09/posca. html, accessed November 12, 2016.

⁷³¹ Taste tests were conducted as part of a sensory walk for the Being Human Festival 2016.

be tasted along with items from the bars' menu. But wine was not just about flavour and bouquet. As Laurence notes, it was the primary intoxicant of the Roman world. 732 The results of consumption are well known, but an obvious effect in the bar environment would have been the increased volume of talking and laughing (Fig. 7.24). 733 Heavy drinking is commented on by the ancient authors and it was very much frowned upon by the elite who saw it as an excess that could have a negative effect on physical and mental health. 734

Whether sweet or acrid, the scents of the wines would punctuate the smellscape throughout the establishments. They would be particularly noticeable at the primary service points, where the wine would be poured, gushing and gurgling into beakers, and mixed with water and consumed by those standing at the counter. As staff made their way through the bar armed with beakers and jugs, transient wafts of wine would gently assail the noses of customers and mingle with the savoury aromas of the food. In fixed locations around the bar, the sound of gushing wine as it was siphoned off from the amphorae into a jug would also have formed part of the soundscape.

Settling up

Although each bar would have had its own particular smells and sounds, one acoustic element that would have been common to all was the chink of coins exchanged in payment for the victuals consumed. Of particular interest to this study is where the money was exchanged. Being able to identify which rooms money was found in would allow for the sound to be added to the acoustic map, and also provide clues as to which rooms might have been for customer use. However, answering this question is not as straightforward as it might seem. For example, in his book, Hobbs records the coin deposits found in the excavation of Insula VI.1 at Pompeii, where a number of bars are located. As the illustrations included in the book show where the coins were found, this seems like a promising line of enquiry.⁷³⁵ However, although Hobbs believes that the coins were the product of loss and therefore associated with retail activity, Ellis refutes this, arguing instead that the coins were found in construction layers and so should be associated with building activity.⁷³⁶ Ellis strongly and coherently argues his case, but the lack of coins found in the context of deposits via accidental coin loss seems

⁷³² Laurence, Roman Passions, 109.

⁷³³ H. Lane, "Alcohol's Effects on the Senses," accessed September 26, 2018, https://www.leaf.tv/articles/alcohols-effects-on-the-senses.

⁷³⁴ Plin. HN. 14.7.58; Sen. Ep. 83.20-21; Lucr. 3.476-486. See Donahue, Food and Drink, 248.

⁷³⁵ R. Hobbs, Currency and Exchange in Ancient Pompeii: Coins from The AAPP Excavations at Regio VI, Insula 1 (London: Institute of Classical Studies, 2013), 105-106.

⁷³⁶ S. J. R. Ellis, "Re-evaluating Pompeii's Coin Finds," in *The Economy of Pompeii*, eds. M. Flohr and A. Wilson (Oxford: OUP, 2017), 306, 312; Ellis, *Roman Retail Revolution*, 180–83.

odd and an issue that deserves further investigation. Although this issue cannot be resolved, we can at least conjecture where the goods were paid for. It seems most likely that customers who ordered and consumed their purchases at the counter would have paid there — although we might wonder how many coins fell into the *dolia*. Guests who chose to sit at a table may — as in modern Italy and other European countries — have settled their bill by leaving the coins on the table when they left. In other words, the chink of coins might have been heard throughout the customer spaces within the bar.

Other smells: People

Another layer to the sensory landscape of the bars would have been provided by the staff and customers. Perhaps the most obvious of these would have been the sour smell of body odour. For the staff serving in hot conditions, especially at peak times, working up a sweat would presumably have been part of daily life. Furthermore, with the bars populated mainly by the lower classes — often employed in manual labour the customers would also have contributed to this particular layer of the smellscape.⁷³⁷ However, for the non-elite, who often lived in close quarters with little free time to visit the baths, such smells were probably little noticed. In a modern survey, in which participants were asked what their least favourite aromas were, body odour got the most votes, even surpassing human-waste odours.⁷³⁸ Today, unsavoury odours can be corrected by carefully controlled air-conditioning units and the ability to regulate the overall air quality. Roman bars did not have this luxury. Although the ancients may not have had our modern sensitivity to such smells, they were commented on. Seneca, for example, sees bodily odours as a badge of honour linked to the 'good' old days.739 In contrast, other authors compare the whiff of an underarm with the smell of a goat. 740 As well as smelly armpits, bad breath — caused by poor diet and dental hygiene — would have meant that getting up close and personal in a crowded bar may well have proved undesirable.⁷⁴¹ The smell of stale breath resulting from a drinking bout the night before was understandably perceived to be unpleasant, so much so that some drinkers sought to cover up the smell by eating laurel-leaves or scented pastilles.⁷⁴² Although the elite were keen to differentiate themselves from the poor by using scented oils, it was a fine balance, and over-perfuming was frowned upon and looked on with suspicion. 743 Juvenal, for

⁷³⁷ For smells associated with body odour and class, see Porteous, "Smellscape," 93.

⁷³⁸ Henshaw, Urban Smellscapes, 34-35, Chart 3.3.

⁷³⁹ Sen. Ep. 86.1.12.

⁷⁴⁰ Catull. 69. See also M. Aur. Med. 5.28; Hor. Epod. 12.4-6; Hor. Epist. 1.5.29.

⁷⁴¹ Toner, Popular Culture, 133.

⁷⁴² Mart. V.4, 1.87. Bad breath, see also Philogelos, 239.

⁷⁴³ For responses elicited from the smells of modern perfumes, see L. Turin, "Accords and Discords," in

example, is somewhat scathing about the excessive use of scents, describing one bar keeper as 'perpetually drenched in perfumes'.⁷⁴⁴

Latrines

Smelly armpits and bad breath were perhaps not the most unpleasant smells to be encountered in the bars.

The latrines may well have made their presence known. In Henshaw's study of the responses to modern smells, toilet-related odours were high on the list in the least-favourite category. These included human faeces, flatulence, urine and urinals/public toilets.⁷⁴⁵

Of the bars surveyed, 30% have evidence of a latrine.⁷⁴⁶ Koloski-Ostrow describes Roman latrines as 'dank chambers' with 'odious fumes' and a 'minimal supply of fresh air' — a rather unpleasant picture of what was an unavoidable feature of everyday life.⁷⁴⁷ Hobson adds a little more colour to the picture...

Indol and methylindol, which are responsible for the characteristic smell of faeces, must have lingered in the air. Urine decomposition must have contributed to this with the smell of ammonia.⁷⁴⁸

Hobson also points out that smells travel more effectively in humid air, which would certainly have been the case for much of the year at the three sites surveyed. Unsurprisingly, the ancients do not seem to have been big fans of the malodorous latrines and there is some archaeological evidence to suggest that attempts were made to improve the stench. In some cases, wooden pegs have been found inserted into walls beside or behind the latrine (at VII.16.a Pompeii), which may have been used to hang garlands of flowers or herbs. Although working in much the same way as modern air fresheners, garlands may have masked the smell to some degree but ultimately the underlying stench would probably have won out. The odours may well have been more efficiently reduced — at least to the surrounding rooms — with the addition of a door.

But, according to Jansen, this was not usually the case. One exception is the latrine in the bar at I.11.10-

Drobnick, Smell Culture, 216-27.

⁷⁴⁴ Juv. 8.158-62, trans. G. G. Ramsay, 1928. See also Mart. 3.55; Suet. Ves. 8.

⁷⁴⁵ Henshaw, Urban Smellscapes, 35.

^{746 25} Pompeii, 2 Herculaneum, 2 Ostia.

⁷⁴⁷ Koloski-Ostrow, Archaeology of Sanitation, 88.

⁷⁴⁸ Hobson, Latrinae et Foricae, 107.

⁷⁴⁹ Ibid., 106. At the Suburban baths VII.16.a Pompeii.

⁷⁵⁰ Columella, Rust. IX.5.1; Mart. VI.93.

⁷⁵¹ Hobson, Latrinae et Foricae, 108; Koloski-Ostrow, Archaeology of Sanitation, 113–14.

⁷⁵² In her survey of 195 toilets at Pompeii, Jansen found just 2 thresholds that suggested the presence of a door. Jansen, "Private Toilets at Pompeii," 123; 126, n. 12.

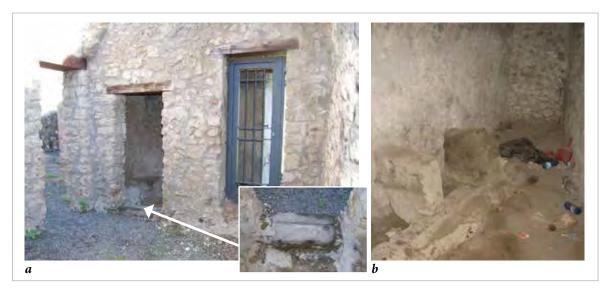


Fig. 7.15 a, Latrine with threshold at I.11.10-11 Pompeii. b, Latrine in the theatre at VIII.7.21 Pompeii.

11 Pompeii, where a threshold stone with grooves for the door post is still extant (Fig. 7.15a). 753 Some of the latrines had windows, which would have helped with ventilation not to mention supplying some much needed light. It is difficult to estimate how many of the bar latrines had windows as the walls do not always survive to a sufficient height. However, the latrines at I.14.15 and VI.1.5 Pompeii might have had windows. In reality, such features may not have been terribly effective as one example, though not in a bar, shows quite clearly: the public latrine under the arches of the theatre at Pompeii (Fig. 7.15b).⁷⁵⁴ In his survey of latrines at Pompeii, Hobson visited this toilet and found that it was still used by modern tourists to relieve themselves — the stench of which caused him to cough and retch.⁷⁵⁵ Although unpleasant, Hobson's experience may have chimed with the ancient latrine users. I followed in his footsteps to get a first-hand experience of what it was like. Things had not changed much since Hobson's visit. The fetid air and the darkness of the room was striking, and seemingly not lessened to any great degree by the two small windows. Apparently still used as a pit stop by modern tourists, the heavy and unpleasant smell in the latrine prompted a swift exit. In some bars (and indeed domestic properties), the need for ventilation would have been doubly important as it was not unusual for latrines to be located next to, or in close proximity to, hearths.⁷⁵⁶ To modern sensibilities, this arrangement seems unhygienic. Indeed, the thought of enticing food aromas mixing with the stench from a latrine is not a pleasant prospect.757 The auditory experience would also have been at play in the latrines. As

⁷⁵³ Hobson, Latrinae et Foricae, 82.

⁷⁵⁴ The Large Theatre VIII.7.21.

⁷⁵⁵ Hobson, Latrinae et Foricae, 107.

⁷⁵⁶ Koloski-Ostrow, *Archaeology of Sanitation*, 33. Examples in houses can be seen at I.6.4, 1.6.15 and I.9.10 Pompeii.

⁷⁵⁷ This configuration can be seen at V.2.13, I.8.8 Pompeii.

well as the obvious noises characteristic of using a latrine, including the odd bout of flatulence, the prevailing smelly conditions would have attracted flies and other buzzing insects.⁷⁵⁸ The Romans seem to have had some form of fly repellent — a mixture of coriander seeds and olive oil — that would have been smeared on the walls.⁷⁵⁹ Although pleasant smelling in itself (I made up a batch), it was probably not terribly effective.⁷⁶⁰

Despite all of the unpleasantness associated with latrine use, a few of these small chambers had some form of decoration, making for a more aesthetically pleasing experience. A good example is in the bar at I.11.10-11 Pompeii, where the garden latrine has a black dado with a red line above. Other adornments found in the latrines give us an idea of the emotional response the Romans may have had when relieving themselves. For example, a painting found in the latrine in the bar at IX.7.21-22 Pompeii — that dates to the first century CE — shows the goddess Fortuna next to a man who is squatting to relieve himself

(Fig. 7.16). The words 'crapper beware of evil' are painted above. It seems that the REDACTED

latrines and that the presence of Fortuna might avert evil.⁷⁶⁴ Depictions of Fortuna in this type of environment are not unusual and there are further examples at Pompeii and Ostia.⁷⁶⁵

There is probably no getting away from

Fig. 7.16 Fresco at IX.7.22 Pompeii (image: Life and Death in Pompeii and Herculaneum, British Museum).

⁷⁵⁸ Hobson, *Latrinae et Foricae*, 148. Koloski-Ostrow, "Roman urban smells," 96. For evidence of flies, see Jashemski and Meyer, *Natural History of Pompeii*, 318.

⁷⁵⁹ Koloski-Ostrow, Archaeology of Sanitation, 68.

⁷⁶⁰ A mixture of coriander seed and olive oil, see A. Scobie, "Slums, Sanitation and Mortality in the Roman World," *Klio* 68 (1986): 420, https://doi.org/10.1524/klio.1986.68.68.399.

⁷⁶¹ G. Jansen, "Paintings in Roman toilets," in *Functional and Spatial Analysis of Wall Painting*. *Proceedings of the Fifth International Congress on Wall Painting, Amsterdam, 8–12 September, 1992*, ed. E. M. Moormann (Leiden: Babesch, 1993), 29-33; Jansen et al., *Roman Toilets*, 55–63, 165–70, 178–80.

⁷⁶² Koloski-Ostrow, *Archaeology of Sanitation*, 112–14. Also, Sofroniew, *Household Gods*, 93–94, Fig. 49. See also, Clement of Alexandria, *Exhortation to the Greeks* 1.4.51

⁷⁶³ CIL IV 5438.

⁷⁶⁴ For demons, see Life of Saint Thecla, Miracle 7, see Koloski-Ostrow, *Archaeology of Sanitation*, 114–15. For a discussion of the perceived evils of the latrines, see Jansen et al., *Roman Toilets*, 165–66. For a description of the painting of the seven sages sitting on a communal latrine, (III.10.2 Ostia), see Hermansen, *Ostia*, 157. Also see Clarke, *Looking at Laughter*, 125–28; Koloski-Ostrow, *Archaeology of Sanitation*, 115–17.

⁷⁶⁵ Images of Fortuna can also be seen in latrines in Pompeii at II.4.3, VII.16.a, V.1.18 and V.4.9. Jansen et al., *Roman Toilets*, 113. At Ostia, a shrine to Fortuna can be found in the Barracks of the Firemen, opposite the latrine, Koloski-Ostrow, *Archaeology of Sanitation*, 114, see also Figs 81, 82 for Pompeii.

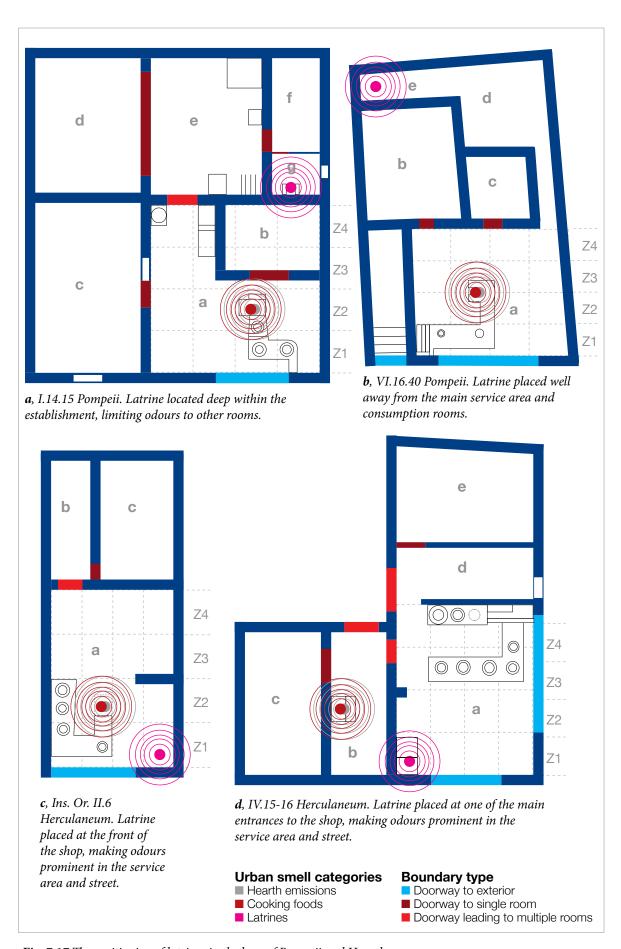


Fig. 7.17 The positioning of latrines in the bars of Pompeii and Herculaneum.

the fact that the latrines smelt unpleasant but the extent to which the smell affected those within the bars would have depended largely on their proximity to public areas. In many cases, the latrines are located at the very back of the bar (Figs 7.17a, b), far removed from the main bar room and dining rooms. The latrines are located at the very back of the bar (Figs 7.17a, b), far removed from the main bar room and dining rooms. The latrines are located at the very back of the bar (Figs 7.17a, b), far removed from the main bar room and dining rooms. The latrines are located at the very back of the bar (Figs 7.17a, b), far removed from the main bar room and dining rooms. The latrines are located at the very back of a person's sophistication. He argues that the elite were able to distance themselves from the smell of excrement but the lower classes who dined at popinae and tabernae could not. The seems that even in the bars there was a conscious decision to keep bad smells as far away as possible from the main consumption areas. Although this was not the case at I.8.8 Pompeii — where the latrine is at the front of the shop — the lack of similar examples suggests that this arrangement was not considered desirable. However, this positioning is not unusual at Herculaneum, as two bars have this (IV.15-16 and Ins. Or. II.6; Figs 7.17c, d), although it seems this was dictated by practicalities such as the location of the sewer system, rather than by choice. The latrine is a result, one of the first olfactory experiences for customers entering these bars may not have been particularly pleasant.

Lararia

Ritual space and the provision for religious practices added yet another layer to the smellscape of the bars.⁷⁶⁹ Across the three sites, 37% of the establishments had some form of *lararium* or altar.⁷⁷⁰ As well as a site for prayers, offerings to the gods might include wine, fruits, nuts, flowers and garlands.⁷⁷¹ As we have seen, wine, fruit and nuts were readily available as part of the food and drink offering at a bar. However, flowers and garlands would have introduced new scents to perfume the air. The evidence for garlands being associated with religious practices comes from both the literary sources and the archaeological record. For example, both Cato and Juvenal include them as part of the offering to the gods.⁷⁷² Archaeological evidence comes from the *lararium* in the kitchen of the bar at I.12.3 Pompeii, where a nail is extant from which a garland could have been hung (Fig. 7.18).⁷⁷³ The painting also depicts colourful garlands suspended above the figures' heads, a

⁷⁶⁶ For example, at 1.14.15, 1.11.10-11, VII.9.57 and VI.16.40 Pompeii.

⁷⁶⁷ Potter, "The scent of Roman dining," 125–26.

⁷⁶⁸ See map, Fig. 92, Koloski-Ostrow, *Archaeology of Sanitation*, 191. For a survey of latrines at Herculaneum see D. Camardo and M. Notomista, "Le Latrine Di Herculaneum. Studio Dei Sistemi Igienici Di Una Città Romana," *Vesuviana: An International Journal of Archaeological and Historical Studies on Pompei and Herculaneum* 7 (2015): Tables 1 and 2.

⁷⁶⁹ For a catalogue of *lararia* see Boyce, *Corpus of the Lararia*; Fröhlich, *Lararien*; Orr, "Roman Domestic Religion".

^{770 32} bars at Pompeii, 2 bars at Herculaneum, and 2 bars at Ostia.

⁷⁷¹ Sofroniew, Household Gods, 44.

⁷⁷² Cato, Agr. 143.2; Juv. 9.137, 12.84; Plaut. Aul. 385-387; Plaut. Trinum. 39.

⁷⁷³ Ellis, "The Pompeian Bar," 67. This is also a feature of the *lararium* in the latrine of VII.16.a; Koloski-Ostrow, *Archaeology of Sanitation*, 113–14.



Fig. 7.18 Lararium painting in the kitchen of the bar at I.12.3 Pompeii. Note the remains of a nail for hanging a garland.

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Fig. 7.19 Incense burner with ash remains from II.8.5 Pompeii (image: Life and Death in Pompeii and Herculaneum, British Museum).

feature that is seen in a number of other *lararium* paintings, including the one in the bar at I.8.8 Pompeii.⁷⁷⁴ Sadly these depictions are not detailed enough to identify what the garlands were made up of, so give no clues as to what aromas might have been added to the smellscape. However, the poem *Copa* sheds some light on this issue as it mentions 'purple garlands twined with yellow rose, and lilies'.⁷⁷⁵ This particular combination of flowers would have produced a very pungent scent — indeed if such strongly scented flowers were used in the garlands placed in the latrines, they may well have helped to mask bad odours.

As well as garlands, the literary sources also mention incense — the most popular of which was frankincense — as part of the offerings to the gods.⁷⁷⁶ In addition to the heady aroma of incense, Ovid highlights the auditory dimension to a 'smoking altar garlanded with chaplets' noting 'the grains of incense snapping in the holy fire'.⁷⁷⁷ One particularly nice archaeological find comes from a restaurant in Pompeii in the shape of a terracotta incense burner containing ash preserved from its last use (Fig. 7.19).⁷⁷⁸ And the list in the bar at IX.7.25 Pompeii has incense listed along with other products that were either bought or sold.⁷⁷⁹ As well as these resins, the remains of animal sacrifices were also burned and at Pompeii in the garden of the bar at I.11.10-11, an altar was found with traces of the last offering.⁷⁸⁰ It also seems that dropped food — probably

⁷⁷⁴ Also on houses at I.6.2, I.13.2, VI.15.1, VII.12.11, IX.13.1-3 Pompeii.

⁷⁷⁵ App. Virg. *Copa*, trans. J. J. Mooney, 1916, http://virgil.org/appendix/copa.htm. For comments on these flowers, see Plin. *HN*. 21.11, 21.22; Jashemski and Meyer, *Natural History of Pompeii*, 121–122, Figs 104, 105, 147, 158–60.

⁷⁷⁶ Hor. Odes 3.23; Juv. 9.137, 12.90; Tib. 2.3. For frankincense, see Plin. HN. 12.32.

⁷⁷⁷ Ov. Tr. 3.13.17.

⁷⁷⁸ Pompeii II.8.5, see Roberts, Life and Death, 97, Fig. 99.

⁷⁷⁹ IX.7.23-25; CIL IV 5380.

⁷⁸⁰ Jashemski, Gardens of Pompeii, vol. 1, 120.

a frequent occurrence in a bar — had to be put back on the table and some of it then burnt to appease the lar.781

But when did these offerings take place and how did they fit in with the life of a bar? According to Cato, the household gods should be venerated on the Kalends, Ides and Nones and 'whenever a holy day comes'. Offerings might also be made in times of need or on special occasions such as birthdays. As this evidence all relates to domestic religious practices it is not clear to what extent they were replicated in commercial establishments. However, as 23% of the bars had a shrine in the main bar room, it suggests that religious observance was not an uncommon practice. Of these, a large number are in zones 1 and 2 of the main bar room (Fig. 7.20), placing the *lararia* very much within the service zone and in control of those serving behind the counter (Fig. 7.21a, b). The visibility of the shrines may also have played a part in the customers' perception of the establishment. For example, as Clarke points out, every house, whether it was a wealthy villa or a poor tenement, had at least one shrine. In the poor man's house this is more likely to have been simple in form — not unlike some of those found in the bars. So *lararia* in the bars may have invoked a feeling of familiarity and comfort in the clientele as well as demonstrating that the bar paid due respect to the gods, which might result in good fortune not only for the proprietors but also its customers.

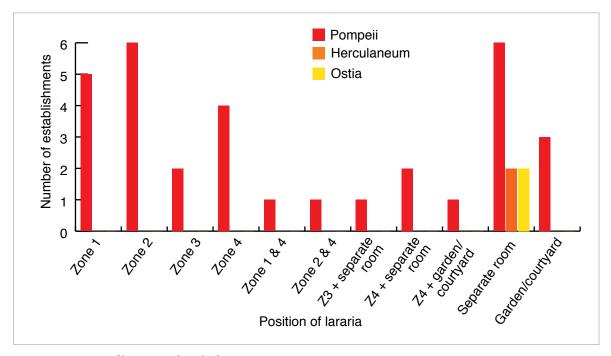


Fig. 7.20 Position of lararia within the bars.

⁷⁸¹ Ellis, "The Pompeian Bar", 65, Plin. HN. 28.5.27.

⁷⁸² Cato, Agr. 143.2.

⁷⁸³ Mart. 10.24; Ov. Tr. 3.8.15; Tib. 2.1-9, 3.12, 4.6.14.

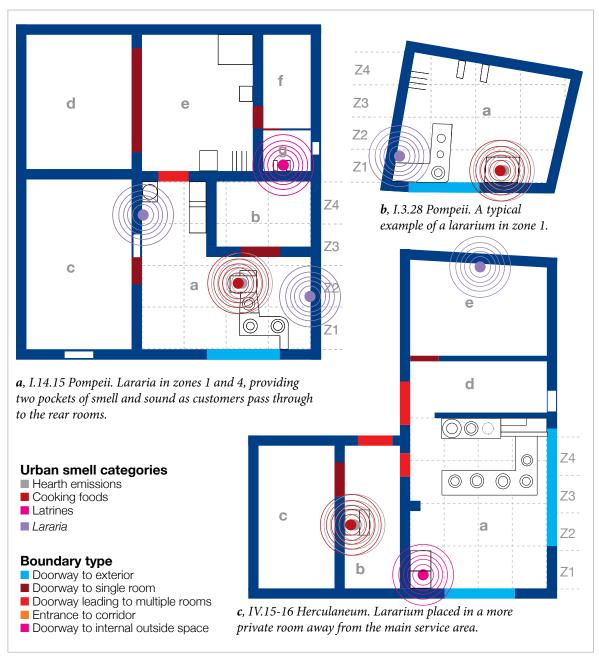


Fig. 7.21 Lararia locations within the bars.

The sound of the crowd

The lifeblood of the bars was of course the people — the workers, and the clientele who frequented them — each playing their own part in the sensory experience of a food and drink outlet (for staff and customer profiles see pp.68-72). Most obviously, their chatter would have provided the main backdrop to the soundscape. As sites for sociability and entertainment, the bars would also have been abuzz with the latest gossip, as this passage from Juvenal suggests.⁷⁸⁴

⁷⁸⁴ For the bars as centres of interaction, see Foss, "Kitchens and dining rooms," 170. For another trade associated with gossip, see J. T. Toner, "Barbers, barbershops, and searching for Roman popular culture," *Papers of the British School at Rome* 83 (October 2015): 102–03, https://doi.org/10.1017/S0068246215000057.

Do you suppose that a rich man has any secrets?... the tavern-keeper close by will know before dawn what he was doing at the second cock-crow; he will hear also all the tales invented by the pastry-man, by the head cook and the carver. ⁷⁸⁵

However, it was not just about what was talked about and the ensuing noise levels but also how the clientele spoke. The lower classes — the mainstay of these establishments — distinguished themselves as such not only by frequenting the bars but also by the way they spoke. As Toner points out, the non-elite did not speak in the refined literary Latin of the elite but in 'vulgar' or popular Latin.⁷⁸⁶ So, just as the smell of the elite could help to distinguish them from the lower classes, speech too could act as an auditory 'them and us'.

But how noisy did the bars actually get? In tests carried out in a modern restaurant, noise levels gradually rose from 72dB at 8 pm, to 81dB at 10.15pm when customers had consumed more alcohol.⁷⁸⁷ This pattern may well reflect those in the ancient bars, with customers fuelled by wine, debates about politics and chariot racing might well have become heated, increasing the noise to raucous and rowdy levels. However, to get a more accurate picture of the acoustic levels experienced in an ancient Roman bar, a ball-park figure of customer numbers is required. One establishment where this calculation is relatively straightforward is at II.4.7 Pompeii, where the masonry seating is still extant. Using Lawson's calculations for the width of space needed per person, I calculated that around 15 people could be accommodated on the masonry benches and a further nine could recline on the couch (Fig. 7.22).⁷⁸⁸

Although additional seating could have been available in the bar room itself, we can reasonably confidently say that at least 24 people could be accommodated in the main dining area. In most cases, however, the bars do not have fixed masonry seating so another methodology is required to estimate customer numbers.

To do this, I have examined the furniture depicted in the paintings from VI.10.1 and VI.14.35-36

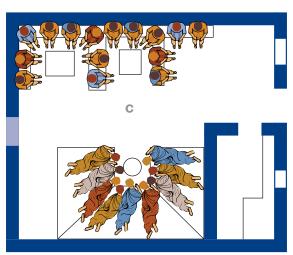


Fig. 7.22 Estimated number of customers seated on benches and triclinium at II.4.7 Pompeii.

⁷⁸⁵ Juv. 9.108, trans. G. G. Ramsay, 1928.

⁷⁸⁶ Toner, Popular Culture, 141. See also F. F. Abbott, The Common People of Ancient Rome: Studies of Roman Life and Literature (New York: C. Scribner's Sons, 1912), 32–78.

⁷⁸⁷ Noise levels were calculated at Il Moro Italian restaurant in Stratford-Upon-Avon, UK, and consisted of 24 customers and three staff, with a slight bias towards males. Also at Gran Sasso café, London, at 1.15pm, 23 people, noise level 76.8dB

⁷⁸⁸ Calculations are based on those in Lawson, Restaurants, Clubs and Bars, 85.

Pompeii (Figs 3.5, 3.7, 7.28). Two of the images show small, round tables with customers sitting on either benches or stools. Similar pieces of furniture survive from Herculaneum, so I have used their dimensions to plot onto the floor plans of the bars.⁷⁸⁹ Of course, these rooms may well have had additional bar furniture that would have reduced the space available for tables, but in the absence of evidence I have treated all spaces as empty apart from what is extant. The results show that a smaller bar, such as VI.10.1, could squeeze in around two tables in its back room (b), accommodating around eight guests (Fig. 7.23a). Although room d is too small for a table and stools, room c could have held further guests and would have provided a good deal of privacy. At Herculaneum, the main bar room at Ins. Or. II.6 could seat around 12 people and, if the back room was also used for clients, an extra eight customers could be accommodated (Fig. 7.23b). At Ostia, where the bars tend to be larger, the establishment at I.2.5 would be able to seat around 12 people in the main bar room, with perhaps an additional 12 in the adjacent room (Fig. 7.23c). Although these figures are speculative, when compared with customer numbers in modern bars, they can provide a guide to noise levels (Fig. 7.24). Customer numbers also make it possible to get an idea of a bar's takings (Fig. 7.25). Using the cost of the simple meal listed on the tombstone from Aesernia for bread, dips and wine (a total of four

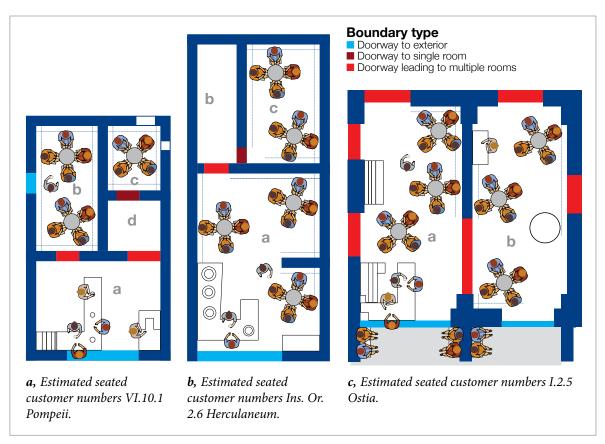


Fig. 7.23 Possible customer seating capacities.

⁷⁸⁹ Calculation based on the table found at III.14 Herculaneum, diameter 61cm, see Mols, *Wooden Furniture*, 49.

Customer dB levels			
No. of customers	dB average	dB maximum	
4–11	70.01	76.8	
12–19	76.5	85.3	
20–27	81.1	86.2	
28–32	84	91.2	

Takings per guest — 1 sitting			
Location	No. Guests	Asses	
Pompeii VI.10.1	12	48	
Pompeii II.4.7	24	96	
Hercualeneum 02.6	20	80	
Ostia I.2.5	24	96	

Fig. 7.24 Potential noise levels of the bars.

Fig. 7.25 Potential minimum customer spend.

asses), this figure can be multiplied by the number of guests to provide an idea of the takings for one full sitting.

A further factor to consider when assessing the bars' auditory landscape is the split between male and female voices. When I calculated the sound levels in cafés and restaurants, the clientele was made up of a roughly equal ratio between male and female. But as we have seen, the evidence suggests that the bars were predominately a male environment (see pp.68-72). In terms of frequency, modern studies estimate that the speech of an adult male ranges from 85Hz to180Hz compared with the 165–255Hz range for an adult female. Therefore it would be the lower male voice that would have pervaded the bar rooms. If some bars did set aside rooms for women, as I hypothesise (p.71), gendered dining spaces would have resulted in rooms having quite different auditory characteristics, which would change as you moved through the various spaces.

That's entertainment

Further sounds generated by the customers of the bars would have come from the entertainment that was on offer. Gaming is often mentioned, as is the sound of the *fritillus* (dice box).

... and, ill-betrayed by the sound of his fascinating dice-box, and just dragged out of the secluded cook-shop, the boozy gambler is begging for mercy of the Aedile.⁷⁹¹

The *fritillus* was used to help curb cheating, it had parallel indentations (*gradus*) on the inside, which made a distinctive rattling noise when the dice were shaken in it.⁷⁹² To get a clearer idea of the sound, I had a replica *fritillus* made (Fig. 7.26).⁷⁹³ In tests both on and off site, the sound of the dice was indeed very distinctive,

⁷⁹⁰ R. J. Baken, *Clinical Measurement of Speech and Voice* (London: Taylor and Francis, 1987), 177; I. R. Titze, *Principles of Voice Production* (London: Prentice Hall, 1994), 188.

⁷⁹¹ Mart. 5.84, trans. W. C. A. Ker, 1919. See also Mart. IV.14, XIV.1; Hor. Sat. II.7.17; Sid. Apoll. Epist.

⁷⁹² W. Smith, W. Wayte, and G. E. Marindin, eds., *A Dictionary of Greek and Roman Antiquities* (London: John Murray, 1890), 548, accessed at http://www.perseus.tufts.edu.

⁷⁹³ The replica was based on the design of one found at Moregine, it was made by G. Taylor (http://www.

it also travelled well. For example, it was still just audible 10 metres away from the bar at V.2.13

Pompeii.⁷⁹⁴ It seems somewhat surprising that the *fritillus* was used so widely given that its distinctive sound was an obvious advertisement of potentially illegal gambling.⁷⁹⁵ Establishments with back rooms might be particularly well suited to this pastime as they offered some degree of privacy from prying eyes.

Dice were also used in drinking matches — a game well suited to the bars — in which the thrower must consume as many cups of wine as dictated by number of spots shown on the dice.⁷⁹⁶

As well as the written sources, archaeological evidence attests to the popularity of gaming as both dice and *fritilli* have been found in the bars.⁷⁹⁷ There is even a plaque set up at Pompeii in homage to the *fritillus* (Fig. 7.27).⁷⁹⁸ Scenes of gambling are also depicted in the bars of Pompeii. For example at VI.10.1 and VI.14.35-36 Pompeii, where we also get a taste of what happens when the gaming turns sour and a fight breaks out (Fig. 7.28).⁷⁹⁹ Disagreements



Fig. 7.26 Replica fritillus with bone dice.



Fig. 7.27 Plaque showing a fritillus on the façade of VI.14.28 Pompeii.

over dice games may not have been unusual — as Swift has pointed out, cheating with dice was a common practice. Players might manipulate the throw or weight the die to ensure it landed on a particular face. 800 So

pottedhistory.co.uk).

⁷⁹⁴ Tests were done on site with two Roman bone dice and a terracotta pot and off-site using a replica *fritillus*.

⁷⁹⁵ Dig. 11.5.2.1; Plaut. Mil. 2.2.9; Hor. Carm. 3.24.58.

⁷⁹⁶ Plin. HN. 14.140-41. E. Swift, Roman Artefacts and Society: Design, Behaviour, and Experience (Oxford: OUP, 2017), 127.

⁷⁹⁷ Dice at IX.7.22 Pompeii, *NSc* 1880, 400, 1881, 62; Mau in *BdI*, 1882, 194. *Fritilli* at Herculaneum V.6, Ins. Or. II.6, Monteix, *Les Lieux de Métier*, 390, 411.

⁷⁹⁸ VI.14.28 on the wall of the south side of the entrance.

⁷⁹⁹ For description of the scene, see Clarke, *Art in the Lives*, 167. See also R. Lanciani, "Gambling and Cheating in Ancient Rome," *The North American Review* 155, no. 428 (July 1892): 97–105. 800 Swift, *Roman Artefacts*, 127–28.

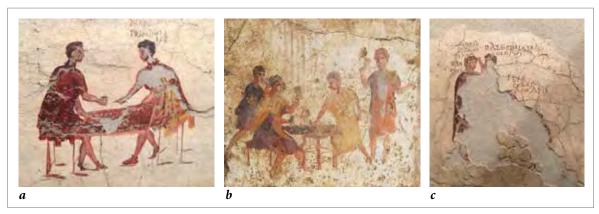


Fig. 7.28 Gaming scenes from Pompeii. a, VI.14.35-36. b, VI.10.1, c, VI.14.35-36, a fight.

gaming and the ensuing arguments and scuffles could result in a relaxed and jovial bar atmosphere changing in an instant, spreading disorder and feelings of anxiety to other customers.

Less stressful entertainment might be provided by a spot of music, singing and dancing.⁸⁰¹ For example, in the poem *Copa*, such distractions are provided by the Syrian hostess, who is...

...adept in swaying sinuous thighs to the castanet's rhythm, dances in her smoky tavern, tipsily, sexily, tapping against her elbows a noisy tambourine.⁸⁰²

Otherwise, you might 'dance and thump the ground' to the strains of a flute, or join in with 'hoarse songs'. 803

If we are to believe Philostratus of Athens, writing in the second to third century CE, the dulcet tones of the Emperor Nero might also accompany a snack at the bar. 804

The evidence suggests that the bars could be quite noisy. Along with the backdrop of people gossiping, arguing and shouting, the soundscape of the bars may also have been punctuated by the sounds of enjoyment. From the strains of music and singing to the tell-tale rattle of the *fritillus*. The type of entertainment on offer would have helped set bars apart from their competitors, much as quiz or karaoke nights do today. But, just like the smells of cooking foods, these sounds would have been temporal. The cacophony coming from the bars may well have assisted newcomers to the towns in finding a snack, so in some ways acted as auditory signage. Of course, not all of the bars would have been so lively, and customers presumably chose their bar with care if they were looking for a quiet drink.

⁸⁰¹ Balsdon, *Life and Leisure*, 152; Casson, *Travel in the Ancient World*, 215; Laurence, *Roman Pompeii*, 93–94; Toner, *Popular Culture*, 109. For an overview of attitudes towards music and dance generally, see Laurence, *Roman Passions*, 115–25. N. Horsfall, *The Culture of the Roman Plebs* (London: Duckworth, 2003), 15, 31.

⁸⁰² App. Virg. Copa, trans. G. P. Goold, 2000.

⁸⁰³ Hor. Espist. 1.14.21-26; Sid. Epist. 8.11.3.

⁸⁰⁴ Philostr. V A, 4.42, trans. C. P. Jones, 2005.

Conclusion

The evidence assessed here reveals that a Roman bar would have provided a vivid multisensory experience, with myriad sights, sounds, smells and tastes. Examining the data for the foods sold in the bars demonstrates that, contrary to elite spin, it was possible to get a decent and flavoursome meal, and that a reasonably wide variety of foods — fruits, cheese, meat and fish — was available, filling the air with fragrant aromas. Some bars may also have served more sophisticated food offerings with stews and meats seasoned with signature marinades unique tastes and aromas that would have helped to differentiate them from the competition. Additionally, the preparation, cooking and serving of the foods added an auditory layer to the sensescape with the clang of pots and pans, and the sizzle and gurgle of the cooking process. The evidence also attests to the availability of a good choice of wines, including varieties lauded by the elite, such as Setinian and Falernian, which suggests that not all bars targeted a lower-class clientele. The wines on sale would have had diverse bouquets and flavour profiles, ranging from earthy, rich and full-bodied to tart and vinegary; additional seasonings would have provided further depth to both aroma and taste. The display of comestibles would have offered an aesthetic dimension to the experience, which, along with the smells, would have sparked a physiological response, which would have got the gastric juices flowing. A lively soundscape would be filled with chatter, raised voices and even the odd bout of singing, not to mention the rattle of the ubiquitous fritillus. In some of the larger bars, noise levels could have reached around 90dB — levels akin to a modern motorcycle — making conversation problematic. However, while customers could enjoy the conviviality on offer at the bars, working conditions for staff would have been less than ideal, taking a toll on their bodies and well being. In addition to the core set of sensory stimuli characteristic of the bars, other sound and smellmarks, such as religiously loaded wafts of incense from lararia or unpleasant smells from latrines, would also have been evident in the sensescape of some of bars. However, as this study has shown, the sensory landscape of the bars at Ostia, where the counters do not contain dolia and where hearths are often not present, could be quite different from that experienced at Pompeii and Herculaneum. Additionally, the one-room bars at Ostia provided little privacy or escape from the noise of the streets.

Although there can be no doubt that some bars were rather smoky, and that some sold substandard fare, it was not always the case, and this portrayal has a lot to do with elite biases and their desire to differentiate themselves from the lower classes. What is clear is that the bars had a very distinct set of sensory characteristics, with subtle differences depending on the time of day, season and from one establishment to the next, across the three sites. But, above all, a visit to a bar could offer patrons social interaction and a chance to let off steam while enjoying the warmth and feeling of well-being induced by a tasty bite to eat and some fragrant wine.

7.2 The streets

In the previous section, we looked at what it was like to visit a bar and the sensory stimuli provided by features such as food and drink, entertainment and the people themselves. But a bar does not exist in isolation. Each establishment may have had its own sound or smellscape, but so too did the streets and neighbourhoods in which the bars were located.⁸⁰⁵ In the second part of this chapter, I will examine the food and drink outlets in the context of their urban environment to see how external influences would have affected the experience of visiting a bar. I begin by looking at the streets themselves and examine the extent to which external influences — such as fountains, traffic and pedestrians — would have affected a bar's internal environment. I also examine how the sensory elements of other trades located close to the bars filtered into and altered the sensescape.

Sensing the streets

The bars with their wide, open fronts would have been particularly susceptible to the sounds and smells of the streets, especially those located on main roads. Juvenal — who portrays a rather lively streetscape — provides a taste of the general hubbub that might have been experienced when out and about in a Roman town.

The continual traffic of carriages in the narrow twisting streets and the swearing of the drover when his herd has come to a halt would deprive a Drusus or the seals of sleep... As I hurry along, the wave ahead gets in the way and the great massed ranks of people behind me crush my kidneys.

The noise of carts — with their distinctive sound of iron wheels on the basalt roads — seems to have been a particular bug bear for some (Fig. 7.29).⁸⁰⁷ Indeed, laws were passed to limit the times at which certain types

⁸⁰⁵ For modern smellscape examples, see Porteous, "Smellscape," 96-98.

⁸⁰⁶ Juv. 3.236-248, trans. S. M. Braund, 2004.

⁸⁰⁷ For the distinctive sound, see Prop. IV.8.17-18. For attitudes towards traffic noise in modern cities

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Fig. 7.29 Fresco from the rear room of VI.10.1 Pompeii, showing a cart transporting wine (image: Mezzi di trasporto e traffico/Giuseppina Pisani Sartorio).

of cart traffic could pass through the streets of Rome. With many of the bars located on main streets, the noise from traffic would have formed a fairly constant source of background noise. The shouts and jeers of the cart drivers as they tried to manoeuvre around the streets would have added yet another layer of sound to contend with while consuming a drink. Indeed, shouts are far-reaching, as illustrated at Pompeii with those of modern builders travelling more than 120 metres. Furthermore, if the kerb-sides holes — often found outside private and commercial premises — were for the tethering of animals, the immediate smell and soundscape would have been greatly impacted (Fig. 7.30). At Pompeii and Herculaneum, it is not unusual

see, A. Corbin, "Charting the Cultural History of the Senses," in *Empire of the Senses: The Sensual Culture Reader*, ed. D. Howes (Oxford: Berg, 2005), 135.

⁸⁰⁸ Lex Iulia Municipalis, 54ff. For a discussion on traffic regulations see D. J. Newsome "Making Movement Meaningful," in Laurence and Newsome, *Rome, Ostia, Pompeii*, 14–20; E. Poehler, *The Traffic Systems of Pompeii* (Oxford: OUP, 2017), 13–15.

⁸⁰⁹ For the traffic flow of Pompeii, see E. Poehler, "The circulation of traffic in Pompeii's Regio VI" *Journal of Roman Archaeology* 19 (2006): 53–74, https://doi.org/10.1017/S1047759400006267; E. Poehler, "Traffic Jams," *Current World Archaeology* no. 4 (March 2004): 46–49. For the different types of obstructions to the flow of traffic at Pompeii and Herculaneum see J. Hartnett, "The Power of Nuisances on the Roman Street," in Laurence and Newsome, *Rome, Ostia, Pompeii*, 135–59.

⁸¹⁰ Shouts of builders at VII.3.1 travelled up the Via della Fortuna and could be heard at VI.10.10. Recording conditions: Wind direction: East-northeast, Wind speed: 6.8 ph, Temperature: 19°C, Weather conditions: Clear.

⁸¹¹ See C. Weiss, "Determining Function of Pompeian Sidewalk Features through GIS Analysis," in *Making History Interactive: Proceedings of the 37th CAA*, eds. B. Frischer, J. Webb Crawford, and D. Koller (Oxford: Archaeopress, 2010), 363–72. Poehler also identifies these features as tethering posts: Poehler, *Traffic Systems*, 84; also, Hartnett, *Roman Street*, 38–39. See also *Dig*. 21.1.40-42 regarding the laws about tethering animals. For other views, see V. Spinazzola, *Pompei alla luce degli scavi nuovi di Via dell'Abbondanza (anni 1910–1923)* (Rome: La Libreria dello Stato, 1953), 61; Della Corte, *Case Ed Abitanti (1954)*, 185–186; S.



Fig. 7.30 The kerb-side holes outside the bar at V.2.13 Pompeii.

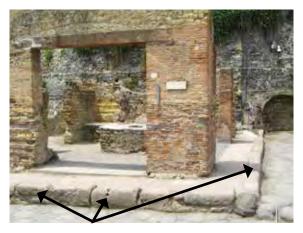


Fig. 7.31 The kerb-side holes outside the bar at II.6 Herculaneum.

for these kerb-side holes to be positioned directly outside of the frontages of the bars (Fig. 7.31).⁸¹² The most obvious result of having stationary animals tethered outside a bar would have been the olfactory nuisance. The smell of animal urine and excrement — no doubt accompanied by the sound of buzzing flies — would have gained in strength as the temperature rose through the day, providing a less than pleasant odour and tainting any food aromas. Along with the smell, the sounds of braying mules/donkeys and neighing horses would not have escaped the ears of customers and staff alike.

Another feature often found outside or close to the bars were the public fountains. Forty-two fountains have been uncovered at Pompeii, three at Herculaneum and 46 fountains/nymphaea at Ostia (Fig. 7.32).⁸¹³ As well as providing a water source, the fountains would have been sites for social interaction, bringing neighbours together and promoting a sense of place and belonging.⁸¹⁴ The sounds of people chattering, the splashing of water, and the clang of jugs and buckets as they were filled would have permeated even the interiors of the bars, especially at those with fountains directly outside their premises.⁸¹⁵ In tests, the sound of running water was far-reaching. For example, the fountain outside the shop at IX.8.1 Pompeii was audible from the bar at V.2.13 (a distance of 38m, and could still be heard as far as 61.7m). A similar distance was recorded for the

Nappo, Pompeii: Guide to the Lost City (London: Weidenfeld and Nicolson, 1998), 41.

⁸¹² At Pompeii, III.8.8, VI.10.1, VI.10.3, IX.9.8 all have one hole, V.2.13, V.2.19, IX.9.1 have two and I.7.8 has three and 1.8.8 has four. At Herculaneum, II.6 has three and V.6 has one. So far I have been unable to find any of these holes at Ostia.

⁸¹³ R. Olsson, "The Water-Supply System in Roman Pompeii," (Lund: Faculties of Humanities and Theology, Lund University, 2015), accessed April 30, 2018, 19, http://www.ht.lu.se/en/series/8163730. For a discussion of the fountains at Herculaneum see Hartnett, "Fountains at Herculaneum," 77–89. For Pompeii see Laurence, *Roman Pompeii*, 45–52. For the water supply at Ostia, see J. T. Bakker, "The water supply," last modified, February 28, 2010, http://www.ostia-antica.org/dict/topics/water/water.htm; Ricciardi and Scrinari, *La Civiltà Dell'acqua*.

⁸¹⁴ Laurence, Roman Pompeii, 45, 49. A. Rogers, Water and Roman Urbanism: Towns, Waterscapes, Land Transformation and Experience in Roman Britain (Leiden: Brill, 2013), 134.

⁸¹⁵ For example, at Pompeii VI.3.18/19/20, VII.1.32 and at Herculaneum, at IV.15-16.



Fig. 7.32 a, The fountain outside the bar at VI.3.18/19/20 Pompeii. **b**, The fountain outside the bar at IV.15-16 Herculaneum. **c**, The fountain outside IV.7.1-2 Ostia.

fountain outside VI.16.4 Pompeii, where the running water could still be heard faintly at 60.8m. The consideration of street-side public fountains also introduces an aesthetic dimension to the sensory experience of the streets, as they were often decorated with the heads of deities, animals or theatrical masks (Fig. 7.33). These images would have resonated with those who saw them, perhaps reminding them of past experiences of religious festivals or entertainments, and evoking their sounds and smells.

But it was not just the sounds of traffic and the buzz of chatter that formed the backdrop to a spot of imbibing. A further layer to the sensescape would have been added by the street traders, pedlars and



Fig. 7.33 Relief of head of Fortuna with cornucopia. Outside VII.9.67 Pompeii.

hawkers who would have plied their trade throughout the day.⁸¹⁸ Their sounds in particular seem to have made an impact as Seneca, for example, mentions the 'cake-seller with his varied cries, the sausageman, the confectioner, and all the vendors of food' as each having 'his own distinctive intonation'.⁸¹⁹ With a different pitch and rhythm the, perhaps irritating, voices of sellers calling out their wares would have contrasted starkly with the murmur of chatter in the bars, infiltrating the street-front dining areas as the pedlars passed by.

⁸¹⁶ Recording conditions: at IX.8.1 — Wind direction: North, Wind speed: 20.5kph, Temperature: 22°C, Weather conditions: Clear. At VI.16.4 — Wind direction: East, Wind speed: 4.3kph, Temperature: 19°C, Weather conditions: Clear.

⁸¹⁷ Croom, Running the Roman Home, 22.

⁸¹⁸ For an overview, see C. Holleran, "Representations of food hawkers in ancient Rome," in *Food Hawkers: Selling in the Streets from Antiquity to the Present*, eds. M. Calaresu and D. van den Heuvel (London: Routledge, 2016).

⁸¹⁹ Sen. 56.2, trans. R. M. Gummere, 1917. Also, Mart. 1.41.5-10.

Additionally, the cries would be punctuated by the occasional sound of haggling, as buyer and seller sought to agree a price. 820 As to the smells that might be encountered, the sources attest to traders in fragrant foodstuffs such as figs, grapes, vegetables, milk and fish. 821

It seems that, although many people frenetically went about their daily business, some were content to pass their time loitering or gossiping in the streets:

Let us now turn to the idle and slothful commons... You may see many groups of them gathered in the fora, the cross-roads, the streets, and their other meeting-places, engaged in quarrelsome arguments with one another, some (as usual) defending this, others that.⁸²²

Again, we find possible disruption in a location often associated with the bars: the crossroads. 823

Additionally, a sign from Pompeii does not mince its words with this warning, "This is not the place to idle, shove off, loiterer". 824 Some loiterers, however, might have had more in mind than just a spot of idle chit-chat. For example, a graffito etched onto the façade of a house at Pompeii reveals other less-than-salubrious activities that might have taken place in the street. 825

Lesbianus, you shit. He who writes has already done that. 826

As a bar was located next door to this house, it might suggest that some of its customers were the culprits responsible.⁸²⁷

The trades

As well as the general hubbub of the streets, and the smells and sounds from the bars, various other trades would have added to the urban sensory environment (Figs 7.34-36). Here, I provide a brief overview of the

⁸²⁰ Juv. 7.221.

⁸²¹ Cic. Div. 2.84; Calp. Ecl. 5.97; Hor. Sat. 1.6. 111; Petron. Sat. 6–7; Calp. Ecl. 4.25-6; Plaut. Capt. 813–816.

⁸²² Amm. Marc. 28.4.28-29, trans. J. C. Rolfe, 1939.

⁸²³ Bars located at crossroads: Pompeii I.11.11, I.8.15, I.12.12, III.8.8, V.1.1, V.2.19, V.4.7, V.1.13, VI.10.1, VI.14.35-36, VI.16.40, VI.5.12, VII.1.1, VII.13.20, VII.2.32, VII.9.30, IX.1.16, IX.7.13, IX.9.1, IX.9.8; Herculaneum II.6, IV.15-16. For the activities that took place at crossroads see Hor. *Ars P.* 244-250; Ov. *Am.* 3.1.16-21; Juv. 9.102-113; Flower, *The Dancing Lares*, 116-36. Hartnett, *Roman Street*, 67. R. Laurence, "From Movement to Mobility," in Laurence and Newsome, *Rome, Ostia, Pompeii*, 388-90.

⁸²⁴ *CIL* IV 813, trans. DeFelice, "Inns and Taverns," 486, n. 81. Found at VII.11.13 Pompeii. Identified by Della Corte as an inn, Della Corte, *Case Ed Abitanti* (1965), 205.

⁸²⁵ I.13.9 Pompeii, outside the entrance to the house.

⁸²⁶ *CIL* IV 10070, trans. A. Varone, "Newly Discovered and Corrected Reading of iscrizioni "privatirssime" from the Vesuvian Region," in *Inscriptions in the Private Sphere in the Greco-Roman World*, eds. R. Benefiel and P. Keegan (Leiden: Brill, 2015), 120.

⁸²⁷ The bar is at I.13.10. For similar warnings found at Pompeii, see *CIL* IV 6641, 7038, 7716. For urinating see Macrob. *Sat.* 3.15.15. For this practice see Varone, "Newly Discovered and Corrected Reading of iscrizioni," 124.



Fig. 7.34 The trades at Pompeii.

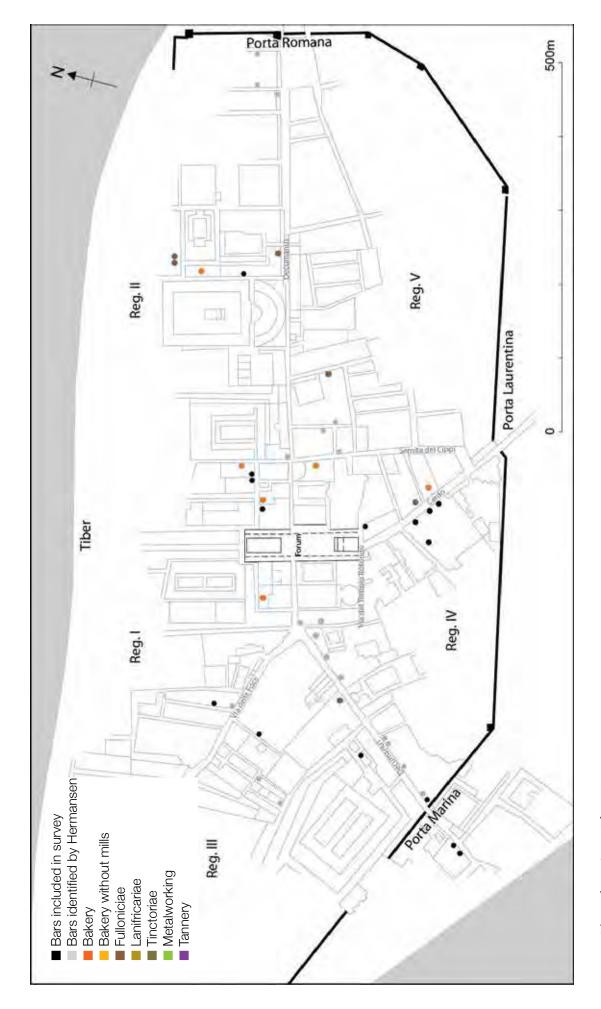


Fig. 7.35 The trades at Ostia. After E. Boast



Fig. 7.36 The trades at Herculaneum.

Bars included in survey
Shops with counters but no hearth
Bakery
Bakery without mills
Fulloniciae
Lanifricariae
Tinctoriae
Metalworking
Tannery

sensory characteristics of the different trades, before mapping them onto site plans to assess the extent to which they would have had an impact on the bars (see chapter 8).828

The textile industry

The textile industry — the *fullonicae*, *lanifricarae* and *tinctoriae* — is notorious for the unpleasant odours it produced. None more so than the fulleries — the ancient equivalent of the modern dry-cleaners that were also involved in the industrial finishing of woollen products. At Pompeii there are 34 workshops involved in the textile business. At Herculaneum four establishments deal in textiles and at Ostia six workshops have been identified as fulleries.

The fullonicae

The degree to which the *fullonicae* affected the sensory landscape of the streets is difficult to pin down as there are conflicting opinions (Fig. 7.37).⁸³² However, the detergents used in the fulling process certainly had some potent aromas.⁸³³ These substances included nitron, potash, the crushed root of soapwort, human and animal urine, and fuller's earth.⁸³⁴ Added to this multi-odoriferous mix, was sulphur, which was burnt under frames on which cloth was spread to be bleached.⁸³⁵ As to the sounds emanating from the fulleries, the splashing



Fig. 7.37 Fullonicae. **a**, V.1.2 Pompeii, with fulling stalls on the left. **b**, I.6.7 Pompeii, with basins and fulling stalls. **c**, II.4.5 Ostia with rinsing basin front, left — three fulling stall were located behind.

- 828 As a starting point I used the trades (bakeries, *lanifricariae*, *fullonicae*, *tinctorieae* and metalworking) mapped in Laurence, *Roman Pompeii*, 62–81.
- 829 M. Bradley, "It all comes out in the wash': Looking harder at the Roman *fullonica*," *Journal of Roman Archaeology* 15 (2002): 21, https://doi.org/10.1017/S1047759400013829. For fulleries at Ostia see http://www.ostiaantica.org/dict/topics/fullones/fullones.htm.
- 830 12 *fullonicae* have been identified, along with 16 *lanifricariae* and six *tinctoriae*, see Flohr, "Living and Working," 54, n.9, 55, n.11 and 13.
 - 831 Flohr, World of the Fullo, 77.
- 832 For identification of *fullonicae*, see Flohr, "Living and Working," 55. For debates regarding the smell, see Bradley, "It all comes out in the wash," 35–36; Flohr, *World of the Fullo*, 241; Flohr, "Beyond Smell," 51.
 - 833 Flohr, World of the Fullo, 185; Titinius, Ful., Fr. 4.
- 834 Moeller, *Wool Trade*, 20, 30; Pliny, *HN*. 28.91. For the use of urine, see Flohr, *World of the Fullo*, 103–04. Flohr, "Beyond Smell," 46.
 - 835 Bradley, "It all comes out in the wash," 36; Apul. Met. 9.24.



Fig. 7.38 Left, the Tinctoriae at V.1.4 and right, V.1.5 Pompeii.

of liquids while workers were treading the cloth in the tubs would have formed one component of the soundscape. ⁸³⁶ Further sounds would have been generated by the plunging and removing of cloth from rinsing basins and from the wringing out of garments. Grunts of physical exertion from the workers performing these tasks would have punctuated the various liquid sonic layers. ⁸³⁷ The fuller's workshop may well have been quite visible within the urban landscape as we know from the *Digest* that their work could spill out onto the pavements as long as it did not impede traffic. ⁸³⁸

The tinctoriae and lanifricariae

The mordants used in the *tinctoriae* (dye works) to prepare cloth for dying included alum or iron salts, and, as with the fullers, urine may also have been used as a detergent (Fig. 7.38).⁸³⁹ The dyes were animal and vegetable in nature,⁸⁴⁰ but, as Flohr points out, it may well have been the smell of the fire and the smoke mixed with the heated chemicals that was particularly unpleasant.⁸⁴¹ The *lanifricariae* (wool-scouring plants) used

⁸³⁶ Titinius, Ful., Fr. 10; Flohr, World of the Fullo, 104.

⁸³⁷ Flohr, "Beyond Smell", 43.

⁸³⁸ Dig. 43.10.1.4.

⁸³⁹ For the identification of *Lanifricariae* and their mordants see Moeller, *Wool Trade*, 13–14; Flohr, "Working and Living," 55; Flohr, *World of the Fullo*, 185–86.

⁸⁴⁰ Moeller, Wool Trade, 14.

⁸⁴¹ Flohr, World of the Fullo, 185; Flohr, "Living and Working," 60.

chemicals and organic material that were heated for the process.⁸⁴² Both the *tinctoriae* and *lanifricariae* share many of the same auditory and olfactory qualities as the *fullonicae*, with pungent smells and the sound of liquids being moved around in vats or basins.

At Pompeii, 12 (16%) of the bars have at least one textile workshop within a 10m radius; at Herculaneum it is 2 (33%); and at Ostia, 1 (7%), some of which are to be found at particularly close quarters. To a greater or lesser extent, the sensory impact of the workshops would have depended on the weather conditions and wind direction at any one time, so the noise and smell were likely to be transient rather than a constant part of the sensescape. The smells and sounds would, however, be temporal, and the evening clientele of the bars would have probably been little affected.

The tanneries

Another notoriously smelly activity was linked to the tanneries,⁸⁴⁴ as the process of manufacturing leather involved myriad odoriferous substances.⁸⁴⁵ For example, the skins were soaked with urine and ash, and then allowed to sit in a warm area, resulting in them giving off a putrefying odour. Excrement (usually dog faeces) was also often applied to the skins to make them supple, although the less pungent alum or oil was used for finishing and preparation of fine leather.⁸⁴⁶ Unlike the textile workshops, tannery structures are somewhat elusive, but two tanneries have been identified at Pompeii, both near the Porta Stabia.⁸⁴⁷ Three bars (not included in my survey) are within a 10m radius of the tannery at VII.7.9-11 Pompeii, all of which were on the opposite side of the road. This suggests that the siting of a food and drink business close to a tannery was not thought likely to hinder trade, or that a prime position close to a city gate was prized over any negative issues associated with the tanneries.

The metal workers

⁸⁴² Flohr, World of the Fullo, 185-86.

⁸⁴³ For example, the bars at I.3.11, VI.10.3, VII.9.57 Pompeii; IV.2.3 room 3, Ostia; Ins. Or. II.6 Herculaneum.

⁸⁴⁴ For identification of tanneries, see C. van Driel-Murray, "Are we missing something? The elusive tanneries of the Roman period," in *Oxford Handbook of Engineering and Technology in the Classical World*, ed. John Peter Oleson (Oxford: OUP, 2008), 72.

⁸⁴⁵ Artem. 1.51, cited from Bond, Trade and Taboo, 97; Mart. VI.93.

⁸⁴⁶ Bond, Trade and Taboo, 98-113; van Driel-Murray, "Are we missing something?," 72.

⁸⁴⁷ At I.5.2 (see *CIL* IV 4014) and VII.7.9-11, for which, see S. J. R. Ellis and G. Devore, "The fifth Season of Excavations at VIII.7.1-15 and the Porta Stabia at Pompeii: Preliminary Report," *FOLD&R Italy* 202 (2010): 18. Also, Bond, *Trade and Taboo*, 121–22. For the suggestion that tanneries be located away from towns see also Artem. 1.51; Juv. 14.201-202.

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Fig. 7.39 Relief showing a blacksmith's workshop, first century CE, from Archaeological museum, Aquileia (image: Wolfgang Sauber/Wikimedia).

Workshops associated with metalworking would have provided a significant auditory pulse to the soundscape of the street. A first-century relief offers evidence from which it is possible to conjecture the smells and sounds produced (Fig. 7.39). The relief shows a blacksmith seated at an anvil, hammer in hand. Various other tools such as tongs, pliers and shears, along with some bellows for the fire, are also depicted. As well as the constant tap and clang of the hammer, the heat, the fuel smells and the crackle from the fire would all have made for an intense olfactory and auditory experience. Martial complains that the noise lasted 'all day', and in tests carried out at Weald and Downland Living Museum, the clanging sound of the smithy could be heard throughout much of the 40 acre plot.

At Pompeii, 7 (9%) of the bars I surveyed had a metal workshop within a 10m radius. None of the bars at Herculaneum was in such close proximity, but people in the bar at V.6 would probably have been aware of the sounds coming from the workshop at VI.12.851 Of the 10 workshops at Pompeii, seven are located very much within the urban fabric of the city (as is the case at Herculaneum).852 This is perhaps surprising given the constant din, as we hear from Athenaeus that the Sybarites of ancient Greece banned noisy trades such as metalworking from within the city limits.853 This suggests that although irritating, the noise from these

⁸⁴⁸ For the identification of metal workshops, see B. Gralfs, *Metallverarbeitende Produktionsstätten in Pompeji* (Oxford: BAR, 1988), 11; Laurence, *Roman Pompeii*, 73. For identification of metal workshops see also T. Putzeys and L. Lavan, "Commercial Space in Late Antiquity," in Lavan, Swift and Putzeys, *Objects in Context*, 89–93.

⁸⁴⁹ See also the reliefs from Tomb 29, Isola Sacra, Ostia, Figs 3, 4, 5 description, E. D'Ambra, "A Myth for a Smith: A Meleager Sarcophagus from a Tomb in Ostia," *American Journal of Archaeology* 92, no. 1 (January 1988): 91–93, https://doi.org/10.2307/505872.

⁸⁵⁰ Mart. 12.57. Recording conditions: Wind direction: Westerly, Wind, speed: 17.5kph, Temperature: 18°C, Weather conditions: Clear, breezy.

⁸⁵¹ For more information on this workshop see V. Catalano, L. García y García, and G. B. Panzera, *Case*, *Abitanti e Culti Di Ercolano* (Rome: Bardi, 2002), 28.

⁸⁵² Gralfs, Metallverarbeitende Produktionsstätten, 12.

⁸⁵³ Ath. 12.518c.

workshops was not considered to be a deterrent to customers or bar owners who set up shop close by.

Bakeries

One trade that might be considered to add to the urban smellscape in a more positive way was that of the bakers (Fig. 7.40).854 However, on closer inspection, this may not entirely be the case.855 As well as the tempting aromas of baked goods, odours from the animals would have included sweat generated from the effort involved in turning the mills, along with urine and excrement. The soundscape would have been filled with animal noises, including the loud braying of mules, and the constant grinding of the mills themselves. In an auditory survey conducted at Weald and Downland, where a working mill is installed, the sound of the grinding millstones travelled up to 23 metres.856 Interspersed with these sounds, and audible to those in close proximity to the bakeries, would have been the ring of a bell, which was used to signal when the grain hopper was empty.857 The ancient literature attests to the bakeries working throughout the night and indeed, Martial complains that their noise



а







Fig. 7.40 Bakeries with mills. **a**, I.3.1 Ostia. **b**, VII.2.22 Pompeii. **c**, Ins. Or. II.8 Herculaneum.

⁸⁵⁴ For identification, see Holleran, *Shopping in Ancient Rome*, 131; Laurence, *Roman Pompeii*, 67. For a list of bakeries at Pompeii see Flohr, "Living and Working," 54., n. 8. For bakeries at Ostia, see Bakker, *The Mills-Bakeries of Ostia*. For finds from the bakeries see Holleran, *Shopping in Ancient Rome*, 131, note 160; Monteix, "Contextualizing the Operational Sequence," 168.

⁸⁵⁵ Apul. *Met.* IX.11-12; Donahue, *Food and Drink*, 64. For an overview of the process see Monteix, "Contextualizing the Operational Sequence," 153–82.

⁸⁵⁶ Recording conditions: Wind direction: Westerly, Wind, speed: 17.5kph, Temperature: 18°C, Weather conditions: Clear, breezy.

⁸⁵⁷ J. T. Bakker, *Ostia, Harbour city of ancient Rome*, accessed May 17, 2017, http://www.ostia-antica.org/regio1/3/3-1.htm. For a contrary opinion see L. A. Moritz, *Grain-Mills and Flour in Classical Antiquity* (Oxford: Clarendon Press, 1958), 89–90.

could deprive you of sleep.858

At Pompeii, 17 (22%) of the bars had at least one bakery within a 10m radius, at Herculaneum it was 1 (17%), while Ostia had 3 (20%). Some of the bakeries are located next door to or directly opposite a bar, which would have meant for a particularly direct two-way exchange of sounds and smells. Sp. However, the layout of the bakeries usually placed the mills closer to the street; the ovens tended to be towards the back of the establishments. This would have meant that it was the smells and sounds of the animals along with the grinding of the wheat that predominated, rather than baked goods and fuel emissions.

Conclusion

The design of the bars, with their wide, open fronts, would have made them particularly susceptible to the sounds and smells in the street and from other trades in close proximity. For the majority of bars, located on main roads, the noise from traffic — often passing at close quarters — would have formed a fairly constant backdrop for those partaking of some refreshment. Where tethering holes were positioned directly outside of the bars, the noise would have been intensified by the sounds of animals, which would also have added to the smellscape with their waste. For customers being served street-side, where the pavements are often narrow, this would have resulted in a mix of smells from the acrid and the appetizing. The chatter of people passing by or the sound of water gushing into buckets at the fountains would all have added an extra layer of sound seeping into the bars. Additionally, the loud, high-pitched cries of street traders would cut through the buzz of customer banter along with a transitory waft of their goods for sale. For those in search of a quieter imbibing experience, a bar with multiple rooms or one located in a back street would have been a wiser choice. However, much of the noise would have been temporal and at night, instead of the sounds of the street invading the interior of the bars, there would have been a reversal, with the bars pouring forth their noise into the quietened neighbourhoods.

Many of the food and drink outlets are close to other sensorily prominent trades, which would to varying degrees have had an impact on the environment of the bars. The textile industry and the tanners, in particular, used strong smelling mordants that would have — depending on the weather conditions — infiltrated the bars to some extent. There seems little doubt that the noise of blacksmiths would have been heard far and wide, and would have been a sonic irritant when trying to enjoy a leisurely meal. However, as we have seen, trades

⁸⁵⁸ Mart. 12.57, 14.223; Apul. Met. 9.11.

⁸⁵⁹ Bars with a bakery next door: Pompeii, I.3.28, V.1.15, VI.5.2, VII.1.39, V11.16.9, directly opposite, VI.16.2, VII.2.32, IX.9.1. Ostia, opposite IV.2.3, room 10.

with a strong olfactory or acoustic presence do not seem to have deterred owners from setting up their bars
nearby.

8. PUTTING IT ALL TOGETHER: THE BAR IN POMPEII, HERCULANEUM AND OSTIA

In the previous chapter, I explored the different sensory elements that would have made up the bars' environment, both inside and out. Although this provides an insight into the sounds and smells experienced in a food and drink outlet, considering the different stimuli in isolation does not offer the whole picture. All, or many of these elements were experienced in tandem, smells and sounds overlapped and merged together forming a sensory landscape unique to the bars. Some sounds dominated whereas others my have been audible only when in close contact. Smells, too, would have had varying degrees of potency and have been received differently depending on individual perception. The taste of food or wine would combine with the smell as they were consumed providing a diner with an experience that could be triggered later and remembered in a different setting. Images too, even colours, could evoke different feelings or moods, and so shape how the bar was experienced. To try to imagine what this multisensory experience might have been like, in this chapter I bring all of the elements together — from the design and the spatial layout to the customers and goods on offer, as well as the external influences that would have shaped the way the bar was experienced. I have chosen 16 case studies to focus on, the selection of which was based on offering a broad picture of the various bar layouts and their neighbourhoods. In the first part of the chapter, I focus on the customer and staff experience within the bars, then I move outside to consider the bars in their urban context.

I begin by mapping the various sensory stimuli onto floor plans. This is based on the evidence discussed so far, and the specific sensory data are illustrated in the smell and sound wheels that act as a supplement to the smell and soundmarks represented as concentric circles on the floor plans (Figs 8.1, 8.2). 860 Possible seating arrangements are also mapped, to get an idea of the number of customers and decibel levels for each bar.

⁸⁶⁰ The size of the concentric circles vary to denote different levels in smell or sound.

I have also examined the space syntax for the larger establishments, and have adapted the j-graph format to highlight the sensory nature of the spaces. To that end, each node includes the colour-coded sensory elements for the space as illustrated on the mapped floor plans. These tagged j-graphs therefore provide a sensory 'fingerprint' for each establishment. The j-graphs can be used not just to assess how the space was organised but also to highlight the spatial differences of the sensory elements. This type of mapping could equally be used for many different applications, ancient or modern.

Case study 1: I.4.27 Pompeii (App. P-06)

Of the 20 two-room bars in Pompeii, 11 had a very similar layout to that of I.4.27, where a smaller room was located directly behind the main bar room. Seven of these bars had an L-shaped counter with in-built hearths, so the sensory geography would have offered a comparable experience to guests.

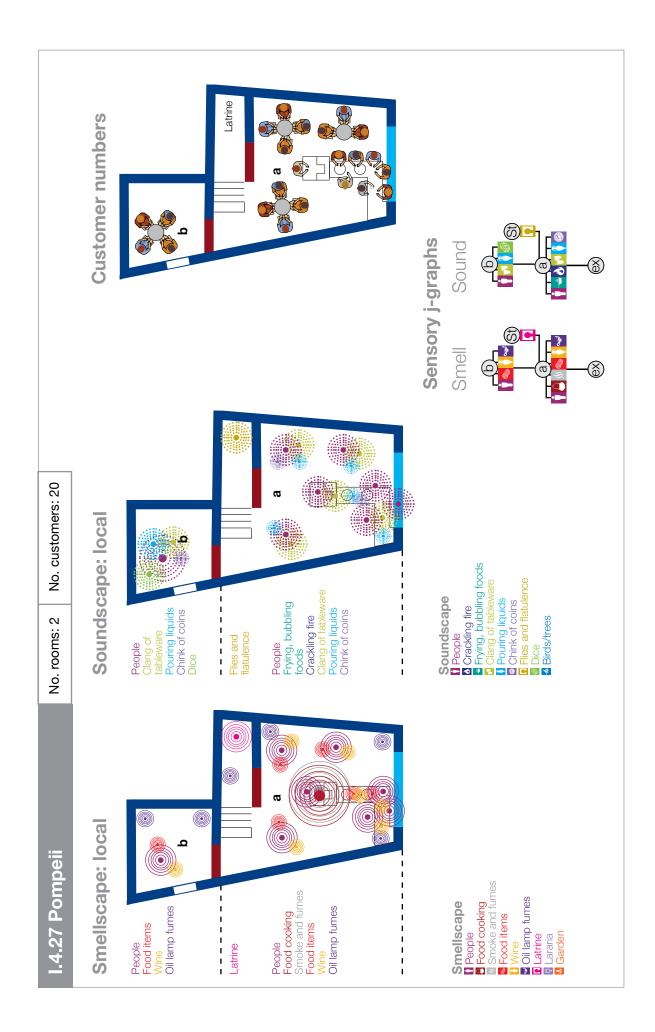
Although there is no information regarding the front-of-counter decoration, on approaching the bar customers would have been greeted by a bright colour scheme of red and orange on the walls. Set The counter, which is slightly set back from the threshold (14cm), allows just enough space for customers to remove themselves from the pavement. The front counter arm is free of dolia, so service and the preparation of food and drink could be undertaken in full view of customers and passers-by. The pungent aroma of pepper, and the sound of it cracking as it was ground down in a mortarium ready for use in the conditum would have produced a fragrant welcome to the bar's clientele. Moving into the main bar room, the nostrils of customers standing at the inner counter arm may have experienced the odd waft of dried foods as a server extracted goods from the dolia. The primary smell and soundmarks, however, would have been focused in the centre of the bar room where the heat, sounds and smells from the large hearth would have radiated out into the extremities of the space. The height of the counter (73cm) is just below the modern requirements for both men and women as a preparation workstation or leaning counter. Although not ideal for staff, customers could 'grab and go' or be more comfortably accommodated at a table. Moving towards the rear of the room a latrine was to be found, its odours marring the overall olfactory atmosphere and perhaps also encouraging flies into the bar. Set If customers were at liberty to use the rear room (b), they would to some extent have been

⁸⁶¹ Ellis, "The Pompeian bar," 245.

⁸⁶² For *conditum* see pp.210-211.

⁸⁶³ For the 'grab and go' market see R. McComb, "The rise of the 'grab and go' market," in *The Caterer*, August 11, 2016, https://www.thecaterer.com/articles/368106/the-rise-of-the-grab-and-go-market.

⁸⁶⁴ Ellis, "The Pompeian bar," 244.



shielded from the smells and sounds emanating from the bar room.⁸⁶⁵ A small window would have brought light and ventilation into the room along with the sounds of people walking by along the Vicolo del Citarista.

This establishment is fairly representative of a bar's smell and soundscape as the focus of sensory stimuli is in the main room, which includes a hearth (see j-graph). However, the sensescape deviates slightly from the majority because of the latrine. Room a was the controlling space, where staff could easily monitor traffic in and out of the bar. The circulation patterns in this establishment are well defined (Fig. 6.6b), although if room b was used as a dining area, some path crossover may have been experienced, bringing customers and staff into close contact at its threshold. The size and configuration of the fixtures in the main bar room would have allowed for tables to be placed around the side and back of the counter, spreading customer noise (76–85dB) fairly evenly throughout. Serving about 16 customers in the main bar room, a single full service could have amassed takings of about 64 asses or 80 asses if the back room clientele are included.

Case study 2: V.2.13 Pompeii (App. P-26)

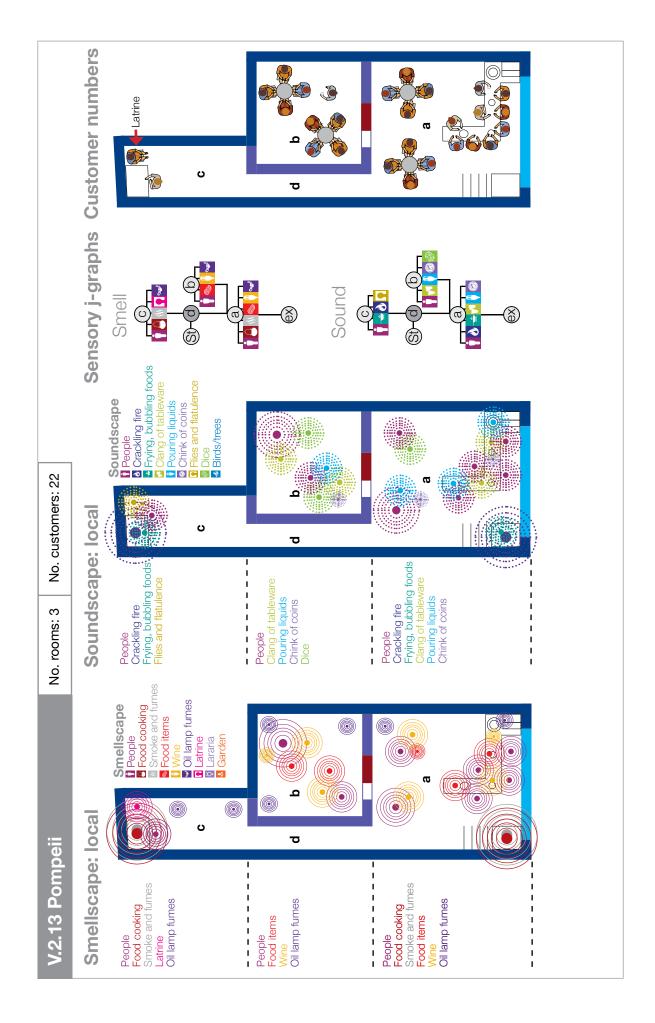
Three-room bars were common in Pompeii, totalling 15 (20%). Although the actual ground plans are varied, often the third room was used to locate a kitchen and/or latrine (11 examples). In contrast to the arrangement at I.4.27, here the counter is set back from the threshold in a far more decisive manner (71cm). This would have allowed customers to cross the threshold — engendering more of a sense of belonging to the environment of the bar rather than the street. Again, no evidence of the street-facing decoration remains, although the walls of the main bar room retain some white panelling with a red socle below. Roof The counter has four *dolia* spread throughout the front and side arms, assuming that each contained a different foodstuff, there would have been a subtle difference in the olfactory experience depending on where you stood. The height of the counter is 76cm, so it just about meets the minimum requirement (of 77cm) for a preparation zone for women, limiting possible back strain. For the superstitious, the counter's position on the right — affording entry on the 'unlucky' left hand side — may have caused some feelings of unease. Roof

In contrast to the previous example, here, the layout of the main bar room demonstrates how sensory events can affect the commercial space when the hearth is positioned at the front of the shop. Although not as common as the hearth attached to the counter, 13 (17%) of the bars have independent hearths located at the front of the shop. The sounds and smells associated with the hearth would have been the most prominent

⁸⁶⁵ See pp.166-167.

⁸⁶⁶ Ellis, "The Pompeian bar," 332; Packer, "Inns at Pompeii," 32.

⁸⁶⁷ Ellis, 'Pes Dexter," 166ff. For a discussion, see pp.75-76.



as you passed by or entered the bar. Although the auditory events — stoking of coals, frying, bubbling of food — would have fought with noise from the street, the fuel and food aromas would have become part of its smellscape. Associated with the hearth was a painted *lararium*, fusing sounds, smells, tastes and religious experience into one. Some customers may have moved through into the back room (b) to dine. In this simply decorated room of white panels with red borders, a degree of privacy would have been experienced. The second most prominent sensory event in this bar would have been located at the rear of the property (c), where a latrine and a second hearth were located. This room and the corridor by which it is reached are quite dark even today despite having no roof. These areas would therefore have required a number of lamps, generating a smell of burning oil to accompany a trip to the latrine.

The layout of this bar allows for good circulation with only a chance of route overlap outside room b, where customers entering or leaving may have come into contact with staff moving into or away from the interior of the counter (Fig. 6.10b). Calculating the space syntax of this bar (Appendix 2—1) reveals that the main bar room (a) is a controlling space (CV 3) and that it has the highest level of accessibility (RA 0.13), followed by the corridor (d, CV 1.25, RA 0.33). Like the previous example at I.4.27, this bar has a standard set of sensory triggers in both the main bar room and secondary room (b) (see j-graphs). However, room c is also sensorily prominent owing to its latrine and second hearth. In fact, it seems likely that this space was olfactorily more intense than room a, where fresh air would have diluted smells to some degree. Serving around 14 customers in the main bar room, noise levels could have reached around 76–85dB, similar to I.4.27. With space for a further eight customers in room b, a single service could total around 88 asses.

Case study 3: IX.9.8 Pompeii (App. P-76)

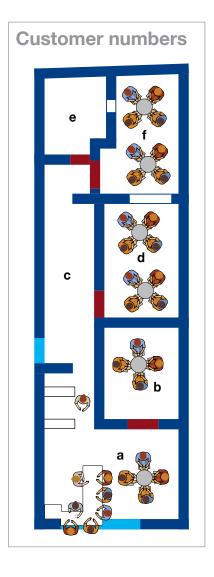
At Pompeii, nine (12%) of the bars had six rooms, two of which had a similar layout to the bar at IX.9.8, where the rooms were arranged in a long narrow building. This bar sees yet another spatial arrangement that reordered the sensory experience. In contrast to the previous establishments, here the marble-clad counter was located at the threshold, placing customers at its front arm in a position to be buffeted by passing pedestrians. Looking towards room b, to the right of the doorway a figure of Mercury (the god of

⁸⁶⁸ Ellis, "The Pompeian bar," 332.

⁸⁶⁹ Latrines in kitchens, see p.215.

commerce) was painted onto a red background.⁸⁷⁰ The wall behind the counter was painted with white panels with red borders, but at some point the figure of a gladiator adorned the wall.⁸⁷¹ The image presumably chimed with many of the clientele, reminding them of the excitement, smells and sounds of the arena. The gladiator was perhaps painted over when his fame faded, and the bar redecorated with a new scheme. Although customers could gaze at the painted scenes in the bar, when not serving, staff behind the counter could check out the competition across the road at V.4.7.

Like a number of other examples at Pompeii, this L-shaped counter had no embedded *dolia*, leaving room for the preparation of food and drink, or perhaps for the placement of some eye-catching displays of merchandise. The height of the counter (86cm) is in the modern male and female preparation range, and nearly in the female bracket for a leaning counter. The primary smellmark of the bar would have come from the area behind the counter in the corridor (c), where a hearth and latrine were positioned. The main bar room area was therefore less likely to be affected by smoke and fumes, which may have been expelled out of the doorway at the side entrance (if open).

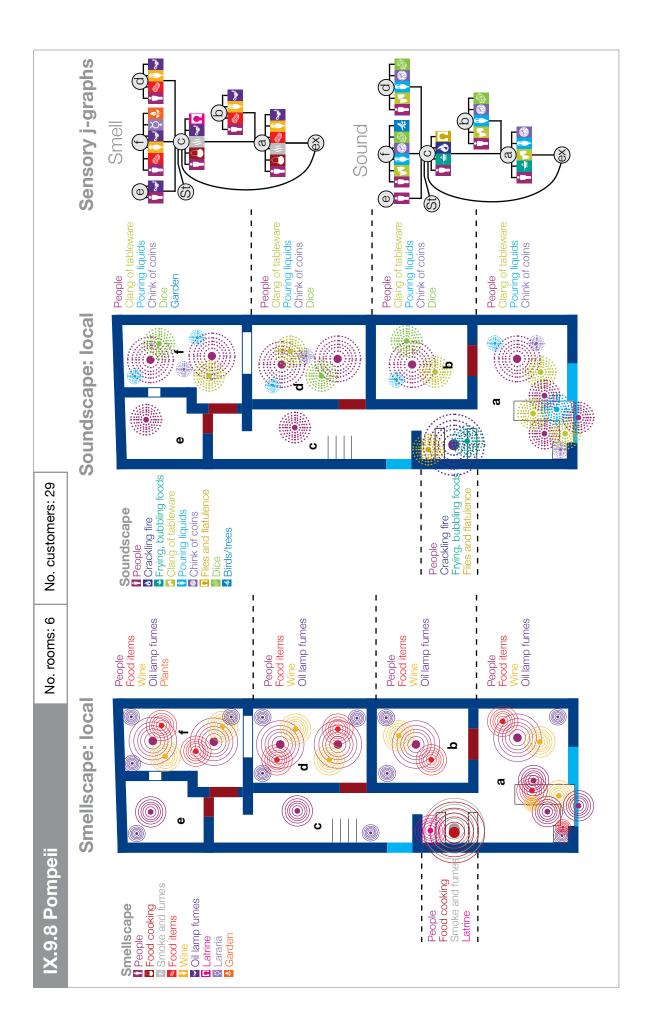


For those customers who wished to dine in a more private fashion, room b may have suited their needs. This room was decorated with red and yellow panels and a depiction of the three graces. Reaving room b and heading towards room c, customers would have come into close contact with staff cooking at the hearth (the passing space was just 83cm) and felt the heat of the fire accompanied by the smells of the food, and the foul odours from the latrine. Room d may also have been a dining room for customers, so would have had similar smell and sound marks to room b. Room d would have benefited from light and ventilation from a window

⁸⁷⁰ Ellis, "The Pompeian bar," 504; *NSc* 1889, 126. Mercury is also depicted on the *lararium* painting at I.8.8 Pompeii, (see P-10). For the attributes of Mercury, see S. G. Oswalt, *Concise Encyclopedia of Greek and Roman Mythology*, (Follett, 1969), 220–23. Sofroniew, *Household Gods*, 88–91. M. Beard, J. A. North, and S. R. F. Price, *Religions of Rome* (Cambridge: Cambridge University Press, 1998), 28-29. Plaut. *Amphitryo* 1-25.

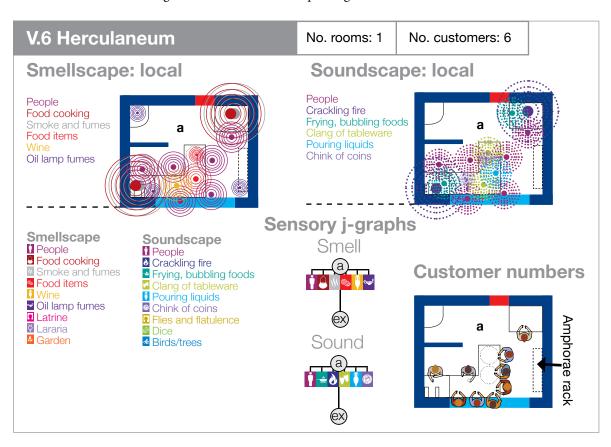
⁸⁷¹ Ellis, "The Pompeian bar," 504; *NSc*, 1889, 126. *CIL* IV 3789. L. Jacobelli, *Gladiators at Pompeii* (Los Angeles: J. Paul Getty Museum, 2003), 83.

⁸⁷² See NSc 1889, 126.



leading into a garden, but at night, this room would have required a number of lamps to illuminate it, adding the smell of oil fumes. Some customers may have made a bee-line for the garden at the back of the property (f), a feature that would have set the sensory experience of this bar apart from many of the others. Although there is very little detail recorded about this small garden (10.64m²), Jashemski noted that a masonry altar was found here. The heady smells of incense would have mingled with those of food and wine. Additionally, the singing of birds and the sounds of insects — particularly the loud, high-pitched chirping of crickets/grasshoppers — would have formed the auditory backdrop to al fresco dining. The sounds and smells from the garden would also have filtered into room d via the connecting window, bringing the outside in.

With minimal cross over of circulation routes (Fig. 6.21), this multi-roomed bar provided a diverse set of spaces in which customers could have dined, each offering a slightly different sensory experience. Calculating the space syntax of this bar (Appendix 2—2) reveals that the corridor (c) is the controlling space (CV 3.83), but it is the main bar room that has the highest level of accessibility (RA 0.2). Serving around nine customers in the main bar room, noise levels could reach around 70-76dB. However, total customer numbers may have been closer to 29, with takings of between 36-116 asses per single service.



⁸⁷³ Jashemski, Gardens of Pompeii, Vol. 2, Appendix, 247, no. 512.

⁸⁷⁴ For crickets and grasshoppers, see Jashemski and Meyer, *The Natural History of Pompeii*, 322-324. For species of bird, see ibid., pp.360-361.

Case study 4: V.6 Herculaneum (App. H-04)

This is the only one-room bar that has been uncovered at Herculaneum and at just 14.06m² it is also the smallest at the site. The L-shaped counter is located at the threshold — a common position at Pompeii and Ostia, but not the norm at Herculaneum. As there is limited space within this establishment, at busy periods the bar may have experienced queues accumulating on the pavement outside, perhaps blocking the entrance to the house next door. Further congestion may have ensued if the tethering hole, found directly outside the bar, was in use, bringing the smells and sounds of mules and horses in to close proximity with customers.⁸⁷⁵ The decoration of the interior of the bar is poorly preserved but traces of paint along with an archival photograph from the 1930s reveals that the walls were painted with white panels with red borders, similar to the decorative scheme in the bar at IX.9.8 Pompeii. 876 On closer inspection, a depiction of a red bird is also visible in one of the panels beneath the amphorae rack, which perhaps hints at the more ornate decoration the ancients would have seen.877 The counter has two large dolia embedded in the inner arm, providing a fragrant waft of foodstuffs as the goods were scooped out for sale.⁸⁷⁸ The height of the counter is low, at 59cm so is far from meeting modern-day requirements. With one of the two hearths located at the rear of the room in full view, customers could perhaps have taken the opportunity to inspect the cooking pots to see if what was on offer looked and smelt appetizing before they ordered. The presence of two large hearths suggests that this bar was able to offer a greater variety of dishes than those with just one small cooking area, or perhaps that there was higher demand for its products. The counter could accommodate around six customers at a time with takings of about 24 asses per single service. However, given the two large hearths in the bar, it is likely that they did a good trade in food sales with a quick turnaround of customers. Noise levels might be within the range of 70-76dB, increasing as queues formed at peak times.

This bar may have been small but sensorily it would have packed a punch. As the j-graphs show, the main smellmarks would have come from the two hearths, with fuel and food smells accompanied by the heat. At the height of service, this would have been a hot, smoky and cramped place to be in, with little or no 'personal' space. Access routes to the back hearth and amphorae rack may have caused some route overlap and jostling. With no space for seating, the bar would have been popular with a 'grab and go' crowd making for a dynamic and fast-paced eating establishment (with noise levels of around 70-76dB).⁸⁷⁹

⁸⁷⁵ Tethering holes, see pp.229-230.

⁸⁷⁶ For an archival photo, see A. Wallace-Hadrill, Herculaneum, 64.

⁸⁷⁷ For the decorative scheme, see photographs by S. A. Jashemski at www.pompeiiinpictures.com.

⁸⁷⁸ For the types of foodstuffs found in the *dolia* see pp.87-88.

⁸⁷⁹ For the concept of 'grab and go', see note 863.

Case study 5: IV.15-16 Herculaneum (App. H-02)

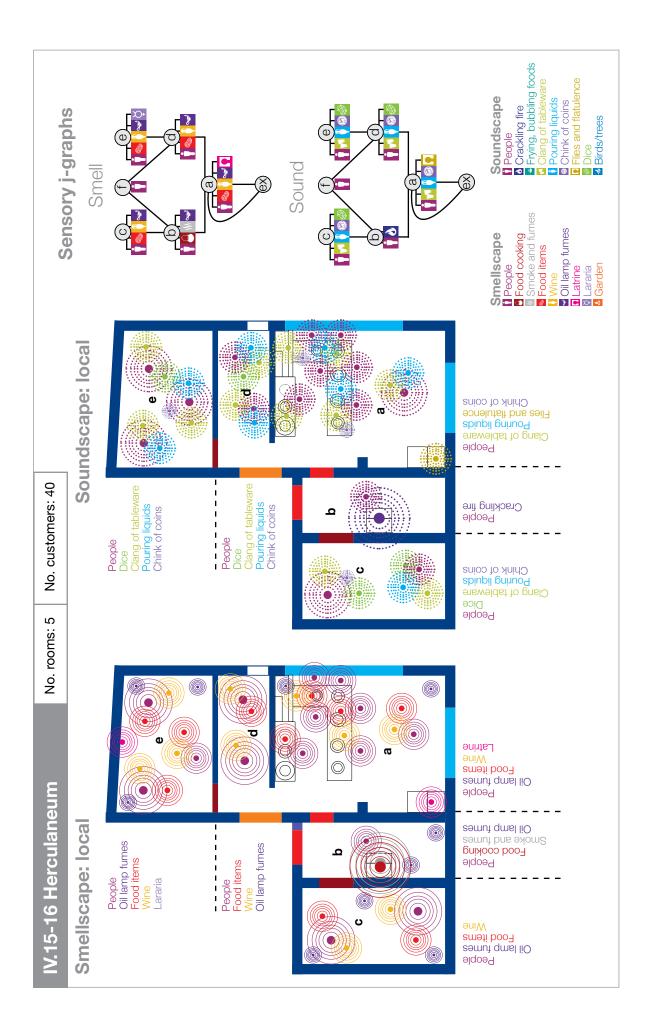
The bar at IV.15-16 is the antithesis of the previous bar at V.6. With two wide shop entrances and a commanding crossroads location on one of the main streets of the city, this bar was in a prime position to trade. First impressions of the bar would have depended upon which road you approached from. Making your way towards the forum via Cardo V, would have given you a good view of the counter decorated in many fragments of colourful marble, suggesting an establishment of some status. However, when approaching from the Decumanus Inferiore, the ancients would have seen a plastered, red-painted counter, projecting a less up-market image. On entering the bar from the Decumanus Inferiore, ample space is provided to step over the threshold and into the realm of the bar, as the counter has been set back by 1.38m from the threshold. The ample U-shaped counter dominates the shop floor and the eight *dolia* embedded throughout it suggests that the bar sold a good selection of foodstuffs — each with their own distinctive smell and sound when scooped out. The quality of the beakers and jugs placed on the stepped shelves attached to the counter would also have provided a visual cue as to the kind of clientele the bar hoped to attract. The low height of the counter (65cm) — which meets none of the modern height requirements — would not have allowed for customers leaning on its top or provide a comfortable preparation surface.

For those entering the bar via Cardo V, the sounds associated with fountains — water, clanging jugs, people chattering — would have been in close proximity to the entrance. Patrons may even have felt the odd refreshing splash of water as they made their way into the bar from over-zealous water collectors. Located on a crossroads, the fountain — which is decorated with an image of Neptune — may have caused some congestion, additionally attracting idlers and gossips, making for a lively obstruction to free passage. Once over the threshold of the bar, while visually customers might be drawn to the sight of the colourful counter, their noses may be less pleasantly assailed, thanks to the latrine at the entrance.

Although the two wide entrances of the bar would have provided a pleasant through breeze in the hotter months, their very nature meant that for customers it was a very public experience. For those who sought some privacy however, the bar had a number of alternative dining options. Heading towards the smells of cooking food, customers could pass through the kitchen and into one of its three additional dining areas. Room c, which retains its third-style decoration from when it was a residential space, would surely have been acceptable even to the elite, although, of course, the proximity of the kitchen and its smells would not

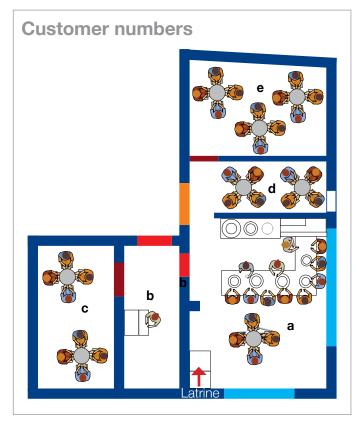
⁸⁸⁰ Marble on counters, see Fant, Russell, and Barker, "Marble Use and Reuse," 181-209.

⁸⁸¹ For the activity associated with crossroads, see p.232.



have been ideal.⁸⁸² A further two rooms (d and e) also seem to have been available to customers. In room e a *lararium* would have resulted in the smells of burning incense or charred food scraps being circulated around the room.⁸⁸³ Next door, room d had the painted remains of a landscape with a small boat where customers had scrawled greetings and exclamations.⁸⁸⁴

The layout of the main bar room provides a good demarcation of customer and staff zones with clear route patterns (Fig. 6.20b).



However, there would have been some route overlap at the doorway between the main bar room and the kitchen (b) as staff delivered food to the various dining areas, sidestepping customers on their way in or out. Calculating the space syntax of this bar (Appendix 2—3) reveals that the main bar room (a) is a controlling space (CV 2) and that it has the highest level of accessibility (RA 0.2). Rooms b and d also have good levels of accessibility (RA 0.27). The j-graphs illustrate the diverse sensory geography of this bar, where the most prominent olfactory presence in the primary retail space may have been the latrine. Although the smells emanating from the kitchen (b) would have seeped into room c, rooms d and e would have been little affected. Serving around 12 customers in the main bar room, noise levels would have reached around 76–85dB. If all of the dining areas were occupied around 40 guests could have been accommodated, with takings of around 160 asses per seating.

Case study 6: II.6.5 Ostia (App. O-06)

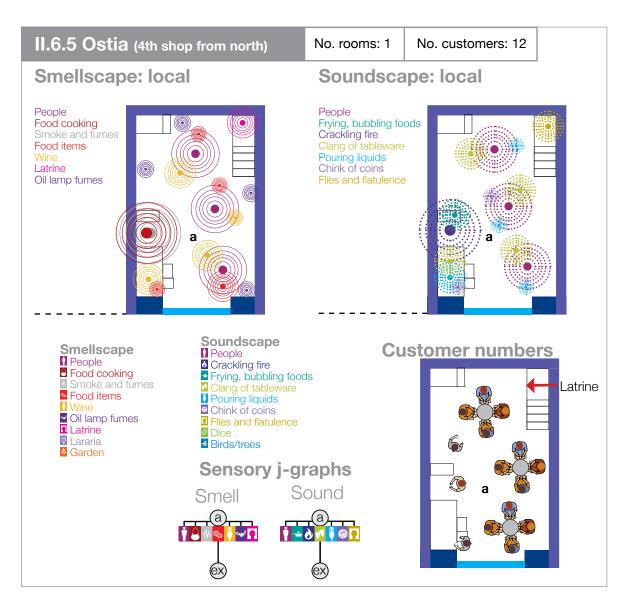
This type of one-room establishment is very typical at Ostia, of all of the bars recorded with a back-to-thewall counter (13 in total) eight are similar in layout. The counter, which is visible when heading towards

⁸⁸² For the decoration, see M. P. Guidobaldi, D. Esposito, and L. Pedicini, *Herculaneum: Art of a Buried City* (Abbeville Press, 2013), 178-181.

⁸⁸³ For the sensory characteristics of *lararia* see pp.218-220.

⁸⁸⁴ de Kind, Houses in Herculaneum, 160-161.

⁸⁸⁵ A threshold latrine position is also seen at Ins. Or. II.6 Herculaneum and I.8.8 Pompeii.



the Via della Fullonica, has no remaining decoration, but if it is similar to other examples, marble may have adorned its surfaces. See The counter is tall and deep (height 1.18m, depth 1m), if the top of it was used for storage, staff would not have been able to reach items at the very back of the counter top. See Staff would also have to navigate around the overflow basin that juts out from the counter — seemingly not an entirely practical solution to an overflow problem. With the counter and hearth located on one side of the bar, the primary sensory events were concentrated in one small area, leaving plenty of space for customer seating or circulation. With a latrine at the back of the property some foul odours may have permeated the bar room. See For customers, the spacious and open-plan bar room would have offered little in the way of privacy, and road noise and the sounds of passers-by would have added to the olfactory ambience of the bar. Other external

⁸⁸⁶ For example, at III.7.3 room 2 and 6.

⁸⁸⁷ Hermansen believed that 'it was most likely' to have shelves on top of the counter, Hermansen, *Ostia*, 147.

⁸⁸⁸ NSc 1913, Vol. 10, 124. Latrines, see pp.214-218.

influences that may have impacted on the bar was the bakery a few doors down. However, the ovens are placed at the farthest end of the complex, so the smells of baking may not have travelled as far as the bar. 889

The location of this establishment meant that it was in close proximity to the theatre and the events taking place could — with the right weather conditions — have impacted on the bar's soundscape. This could include the shouts and applause of the 4,000-strong audience or of the productions taking place. 890 Before and after events, the street outside the bar would have swarmed with crowds and increased the noise levels significantly.

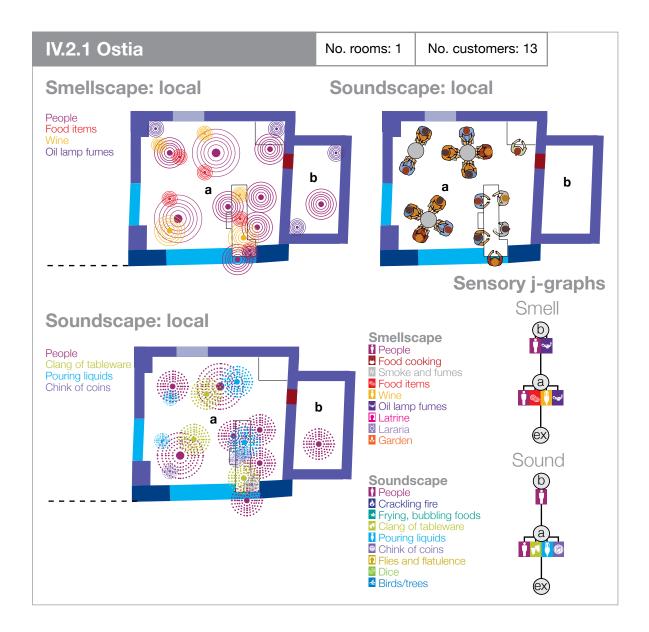
As we have seen (Fig. 5.47a), access routes around this large one room bar were streamlined, with well demarcated customer and staff zones, as is common for this type of layout. The bar has the usual sensory features (see j-graphs), as well as a latrine, but differs from previous case studies because of the positioning of the service area, which pushes the primary sensory events to one side of the room. Serving around 12 seated customers, noise levels in the bar would have reached around 76–85dB. A single full service could have amounted to takings of around 48 asses, although the bar's proximity to the theatre may well have seen a far greater turnover.

Case study 7: IV.2.1 Ostia (App. O-11)

Like the previous example, this bar has just one room. It is accessed via a portico — a characteristic feature at Ostia — shielding customers from sun or rain. On approaching the bar from the Porta Laurentina, the marble-clad counter could be seen, but unlike those at Pompeii and Herculaneum, this counter takes up only a small amount of the width of the shop entrance. The truncated, street-facing end of the counter has a planned design, clearly intended to catch the eye. Moving into the bar, the counter front is decorated with diamond shaped slabs of marble flanking either side. Standing at the counter, customers would have to navigate around the water basin that protrudes out into the room, that this is the only basin designed like this, suggests that it was not a popular (or indeed, practical) choice. The counter is particularly high at 120cm, so is above all of the modern recommendations for a preparation or leaning surface. Adjacent to the counter was a set of shelves, and a doorway to what was perhaps an under-stair storage space, meaning that this section of the bar was given over entirely to service, limiting customer and staff crossover. No hearth has been uncovered in the bar, so the heat and cooking smells associated with many bars would not have been present. But dried goods and comestibles

⁸⁸⁹ II.6.7, for a description, see Bakker, The Mills-Bakeries of Ostia, 80-89.

⁸⁹⁰ C. Pavolini, *Ostia*, Nuova ed. riv. e aggiornata, Guide Archeologiche Laterza 11 (Roma: Laterza, 2006), 68; F. Sear, *Roman Theatres: An Architectural Study*, Oxford Monographs on Classical Archaeology (Oxford; New York: Oxford University Press, 2006), 129.



attained from elsewhere, such as sausages and bread, could have had some impact on the smellscape. A *mortarium* was found in the bar, so the grinding and mixing of fragrant herbs and spices would have added to the sound and smellscape. The floor of the room was made up of a black and white mosaic (no longer visible) of an 'indiscriminate' pattern, which would have produced a soft tap as it was walked on.⁸⁹¹ The bar's secondary entrance connects to the Terme del Faro, which after a visit, perhaps provided some particularly sweet-smelling patrons.⁸⁹² The bar's position within the bath complex would surely have affected its sensescape — in particular, the echoing sounds (splashes, shouts) coming from the *frigidarium* and smells from the large latrine close by. As the bar is the first to be encountered after the Porta Laurentina, the sights of clientele in travelling cloaks and the sounds of different accents may also have rung through the bar room.⁸⁹³

⁸⁹¹ Hermansen, Ostia, 162.

⁸⁹² For a description of the baths complex, see Pavolini, Ostia, 206-207.

⁸⁹³ For the attire of travellers, see pp.69-70. For accents see pp.71-72, p.222.

Like the previous Ostian bar at II.6.5, access routes are straightforward, with well defined customer and staff zones. However, when it comes to the sensory landscape, this bar is lacking in the usual attributes — most obviously the hearth and its resulting sounds and smells (see j-graphs). This was however, seemingly the case for the majority of bars at Ostia, for which hearths were not uncovered. Serving around 13 customers, noise levels would have reached around 76–85dB. A single full service could have totted up takings of 52 asses. However, given the location of the bar, it seems likely that this was a busy spot, with customers from the baths stopping by for quick snacks at the start or end of their bathing ritual. Indeed, the bar may also have hawked its produce around the baths, adding yet another layer to the soundscape (and cash to the coffers).

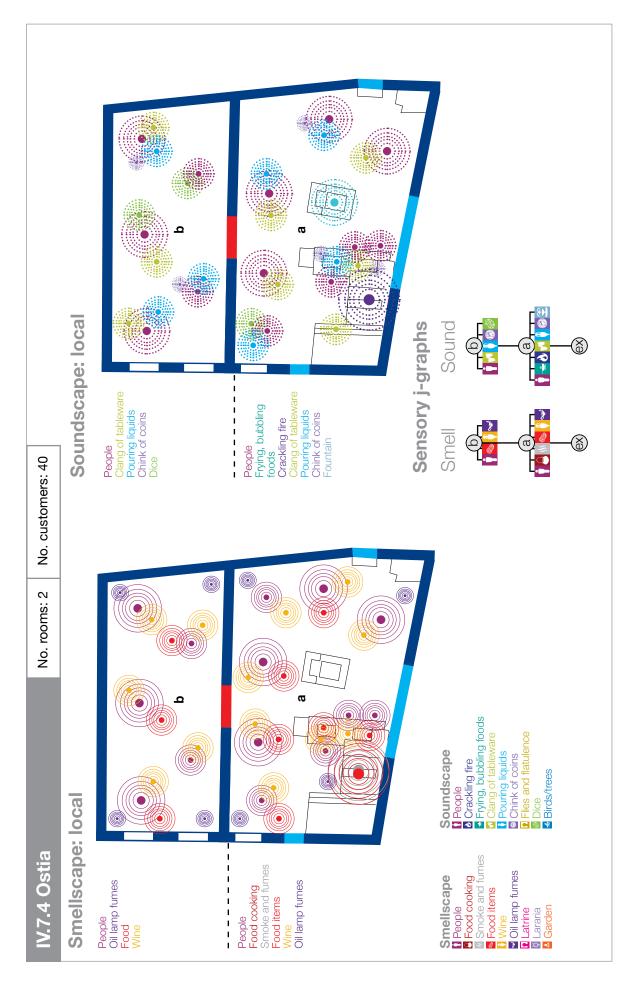
Case study 8: IV.7.4 Ostia (App. O-15)

Today, the entrance to this spacious two room bar cannot be used as the street has been reconstructed at an older, lower level. 894 Nevertheless, we can still get an idea of the first impressions that visitors might have had when approaching from the Porta Marina. The counter that sits on the threshold, for example, with its marble cladding would have hinted at a better class of establishment. Its positioning left ample circulation space at the very front of the shop allowing patrons to step over the threshold and fully enter the bar. Once inside, perhaps the most striking feature would have been the mosaic floor, where on entering guests would have been greeted by a depiction of Venus (Fig. 5.52) — as long as it was not obscured by fellow customers. The sounds of water might have been particularly noticeable in this bar with its double water basin in the counter and central fountain. In fact, the occasional splash of cooling water might have refreshed tired feet as the central basin contained a drain that let water out onto the floor to collect in a catch basin at the foot of the counter. 895

The central positioning of the extra basin/fountain would have affected customer and staff flow patterns, providing an obstacle to navigate around when moving through the space (Fig. 6.8b). With two further entrances into the bar (one of which has a particularly worn threshold), there could have been a number of different streams of traffic converging together. The floor mosaic at each of the additional entrances — a depiction of two boxers at one and Egyptian dancers at the other — were prominently placed for full impact. With the large service area taking up almost one-quarter of the floor space, the sounds and smells of food and drink preparation were somewhat removed from guests situated in the main part of the bar. Moving through to the rear room (b, possibly a dining room), and away from the street noise, traces of red and yellow wall

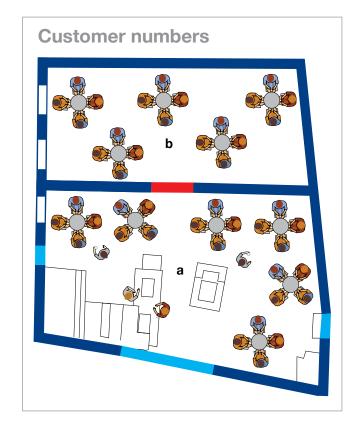
⁸⁹⁴ J. T. Bakker, "Regio IV - Insula VII - Caupona di Alexander e Helix (IV,VII,4)," last modified, March 19, 2006, http://www.ostia-antica.org/regio4/7/7-4.htm.

⁸⁹⁵ Hermansen, Ostia, 173.



paint and a black and white mosaic floor are still visible. Much-needed light would have come from the two windows at the end of this spacious room.

With the inclusion of a hearth, the sensory landscape includes the usual features characteristic of a bar. Serving around 25 customers in the main bar room (plus another 20 in the rear room) noise levels would have reached around 81–86dB in the main room. A single full service could have seen takings of 100 asses or 180 asses if the back room clientele are included. This bar could cater for a large number of customers



— as is suggested by the double water basin and large set of stepped shelves — and given its location would most likely have had a lively and buzzing atmosphere.

Smell and sound wheels

The smell and soundwheels (Figs 8.1, 8.2) provide an overview of the olfactory and acoustic experience of a Roman bar. They are based on the evidence discussed throughout the thesis, and outline the types of smells and sounds that might be encountered. They are intended to be used in conjunction with the mapping of the case studies and provide the detail to the broad smell and sound categories (e.g. food, people), represented by the concentric circles.

The smellwheel illustrates the range of olfactory stimuli that are characteristic of a bar. Unsurprisingly, a large proportion of the smells would have come from the food. However, the smells range from the subtle (legumes, grains, fruit) to the pungent (onions, cabbage, fish), meaning that often the full gamut of smells would be not be detectable, especially if smoke fumes were also present. The customers and staff would provide a further layer to the smellscape, varying in potency depending upon the class of patron the bar attracted — from body odour or lingering aromas from odiferous trades to perfumed oils.

The soundwheel provides a snapshot of the auditory environment that would have been experienced in

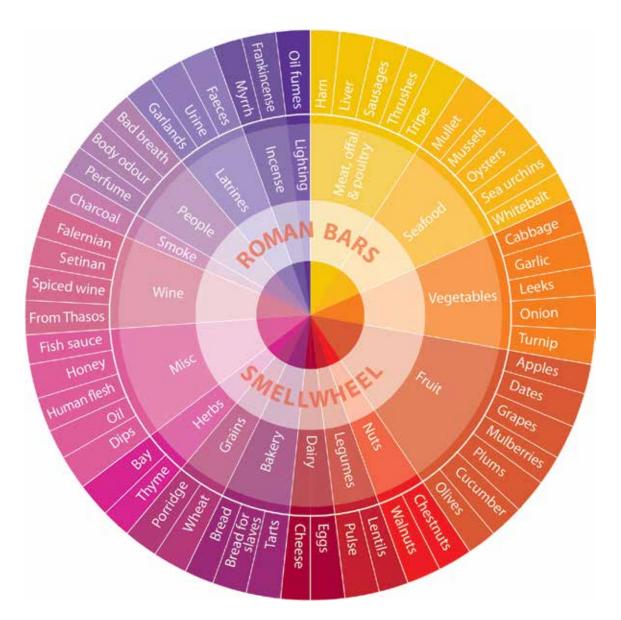


Fig. 8.1 Smellwheel illustrating the olfactory experience of a Roman bar.

tandem with the various smells. Again, as with the olfactory stimuli, we see varying degrees of sound levels. However, the predominant acoustic event would have centred around the staff and customers (chatter, laughter, the sound of the *fritillus*), varying depending on the time of day. The sounds of the streets would also have seeped into a bars' environs bringing the outside in.

Some of the smells and sounds included in the sensory wheels would have combined to offer a multisensory experience. The frying of a *lucanian* sausage, for example, with its smoky smell and taste, or the bouquet and taste of a wine in conjunction with the alcohol's effect on the body. Many of the sounds and smells included on the sensory wheels are familiar to us today and reading through the list can trigger our own sound and smell memory banks to imagine the experience the Romans had when visiting a food and drink outlet. As such, the mapping along with the wheels act as a sensory guided tour through the 2,000-year-old establishments.

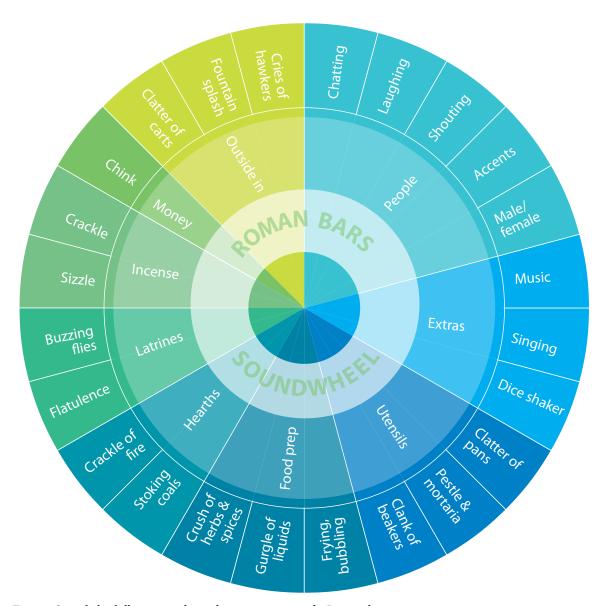


Fig. 8.2 Soundwheel illustrating the auditory experience of a Roman bar.

Conclusion

The food and drink businesses had a fairly standard set of sensory stimuli, but despite this, the variety of spatial layouts meant that where certain triggers were experienced differed between the bars. Hearths for example, provided one of the primary sensory stimuli but the extent to which this was received by customers depended on decisions made at the planning and design stage of the bar's installation. Whether the cooking of food was done in the main bar room (case studies 1, 2, 4, 6, 8), with the resulting sights, smells and sounds, or far removed in a designated kitchen (case studies 3, 5), the decision of where to site the hearth would have shaped the way in which the main bar room was experienced. Given the elite's negative reaction to the smells associated with kitchens, it might be wondered if locating hearths away from the main dining areas was less an operational practice but, rather an attempt by the bar not to alienate affluent upper-class clientele. At Ostia,

where many of the bars seem to have had no cooking facility, this sensory layer would have been completely absent (case study 7). This absence would have made a marked difference to the sensescape of these bars, not just depriving them of tantalizing food smells but by also giving them a different ambient temperature.

A further key factor to the bars' atmosphere were the customers who would have been at the heart of the soundscape. The decibel levels experienced in a bar would have depended on the size of the room and the number of customers it could accommodate as well as the time of day. Based on my sound samples of modern bars and restaurants, at peak times acoustic levels could have ranged from between 70–90dB, the higher of which would have had an impact on the soundscape of the street (such as case study 8). Although some bars may have had similar customer capacities, the arrangement of the fixtures and fittings would have dictated where pockets of sound sat within the space. For example, at V.6 Herculaneum, voices would be focused at the counter, at I.4.27 Pompeii and IV.7.4 Ostia, there would have been more of a surround-sound effect while at II.6.5 Ostia, it would have been more linear. The crossing of staff and customer paths would also have resulted in sensory contact in terms of bodily odours. For example, bar staff might smell of the cooked foods and smoke from the hearths, while customers could have had their own distinctive smell originating from odourous trades, such as bakers, fullers or fishmongers.

In establishments with multiple rooms, each could provide a different sensory experience, as the j-graphs show. For example, the main bar room might be smoky, frenetic and noisy with raised voices intermingled with traffic sounds (such as case studies 1, 2). A rear room might offer a more tranquil and private dining experience — greater still the farther into the building it was located — perhaps even with an aesthetically pleasing decorative scheme (case study 5). In gardens or courtyards, the sensescape would be transformed by the sounds of birds and insects and the smell of foliage or incense from an altar, and accompanied by a cooling breeze (case study 3). In many ways, the multi-roomed bars may have reflected the public/private division evident in elite houses. In the bars, the main room was in full sight of passers-by and anyone could enter, whereas back rooms, found deeper in the fabric of the building, may have been reserved for those in the know, perhaps even ear-marked for the more well-to do clientele. The multifaceted sensory experience of bars with additional rooms is, however, largely absent in the Ostian bars, where the large one-room units offer little privacy or escape from the noise.

The sensory mapping of the bars, along with the j-graphs, demonstrates that each bar had its own distinct sensory profile routed in the internal geographical configuration of the establishment. As such, we see sensory differences between bars at the same site and variations across the three sites — especially at Ostia — which all stem from the design and layout.

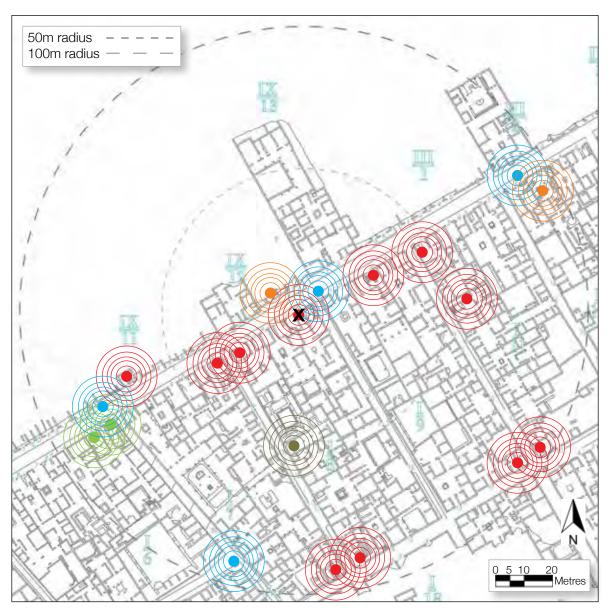
Mapping the trades

Having looked at how the individual trades may have affected the sensory landscape of the bars, we can begin to build up a picture of distribution patterns and examine how the bars fitted into the urban environment with the various workshops. Each case study has been mapped with the locations of the various trades that are within a 50-metre and 100-metre radius of the chosen bar to give an idea of the sensory profile of the neighbourhood. I have also mapped fountains and public latrines as they would have provided further layers to the sensory landscape. The different trades have been colour-coded for ease of reference and the resulting totals from each neighbourhood have been translated into a 'barcode' to illustrate each neighbourhood's unique sensory fingerprint. This type of mapping along with the resulting barcodes could, like the tagged j-graphs, provide useful insights into urban planning for a variety of applications.

Case study 9: I.8.8 Pompeii

The bar at I.8.8 is located on the busy through route of the Via dell'Abbondanza, which in total has five bars within the 50-metre stretch of the street. To the north of the Via dell'Abbondanza has not been fully excavated so it is not possible to get a complete picture. However, the excavations have revealed some shop units, so it is possible that some were also fitted out as bars. Walking along this main road, the food and drink outlets would have provided (depending on the time of day) fairly constant pockets of food cooking smells and smoke fumes. In addition, the two bakeries would not only have added to the smells in the street but also contributed an auditory layer to the soundscape. Both of the bakeries have mills fairly close to the street, so animal noises and the sound of grinding mills may have been audible. Although the oven at I.12.2 is set back in the building, at IX.12.6 it is close to the street, making it more likely to waft its baking aromas towards passing pedestrians. As this bakery is directly opposite the bar at I.8.8, the two sets of smells would combine to make a distinct olfactory signature. The three, fairly evenly spread fountains along the Via dell'Abbondanza (one just steps from the bar at I.8.8), would have provided an auditory backdrop, with the sound of people chattering, and the running and splashing of water. These fountains may also have caused congestion on the pavement, forcing people to wait for clear passage or to brave the dirty roadbed. A fairly prominent soundmark would have been experienced to the west side of this sample from two metal workshops, whose sounds would reverberate through the streets and into the bar opposite at IX.11.2. Moving away from the main street, a further four bars are located along the Via di Castricio, adding to the smellscape.





Urban smell and sound categories



^{*}The bars at I.7.14, I.9.11 and IX.11.2 are not part of the survey but included for completeness.

Overall, the neighbourhood around I.8.8 would have been dominated by the smells of food from the bars and the bakeries. The noise from cart traffic moving back and forth along the busy Via dell'Abbondanza would have formed the primary back drop to the auditory sensescape, punctuated by the ring of the metalworkers.

Case study 10: VII.2.32 Pompeii

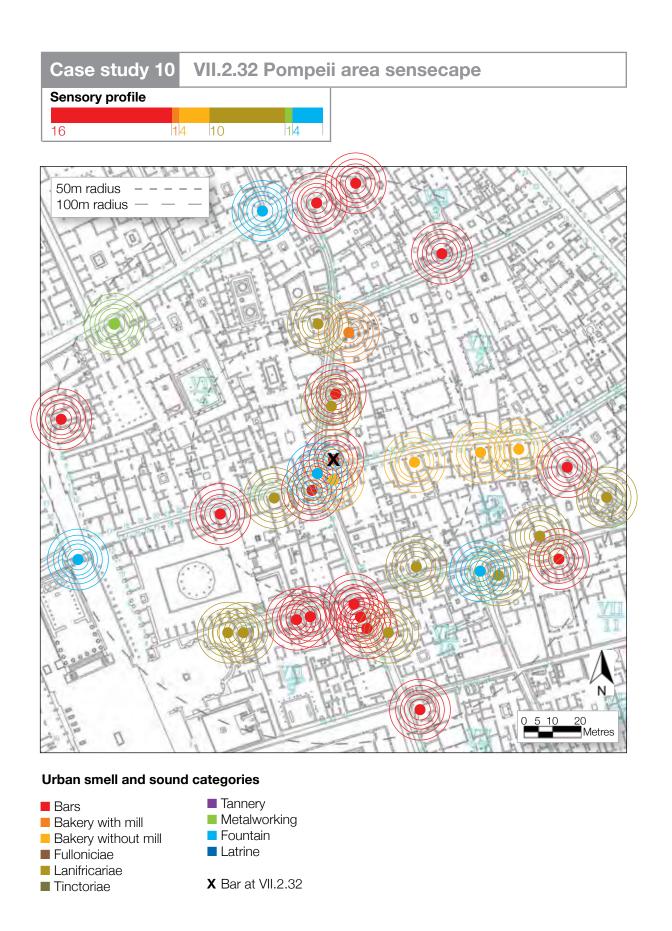
Unlike the bar at I.8.8, where the businesses cluster close to the main road, the trades surrounding the bar at VII.2.32 are fairly sprawling in nature. What is particularly noticeable in this area is that it is not only dominated by bars but also by a large number of *lanifricariae*. This may suggest that the workshops — with their unpleasant aromas — were not perceived to have been unsavoury neighbours, or thought to deter customers. On the other hand, the businesses may have accepted the smell as a necessary evil given that the location was close to a potential source of a high number of customers with the forum and *macellum* close by. Alternatively, for the bars that did set up in this area, 'passing' trade might not have been their intended market. Instead, they may have targeted the workers of the many workshops as their main source of income, in a similar approach to that seen in the area of Smithfield Market in London, where, after a night shift, workers would head to a local pub for breakfast and a pint of stout.

In contrast to the smells from the *lanifricariae* — four bakeries found in close proximity to each other along the eastern side of the Via degli Augustali would have provided a far more pleasant olfactory experience. None of these bakeries had mills, so the smells and sounds associated with them (the animals in particular) would not have impaired the perfume of the baked goods. However, without mills, these bakeries would have needed regular deliveries of flour, resulting in increased traffic noise.

Travelling around this neighbourhood would have provided a diverse sensory experience dominated by the unpleasant smells of the *lanifricariae* but littered with pockets of appetizing food aromas from the bakeries and bars.

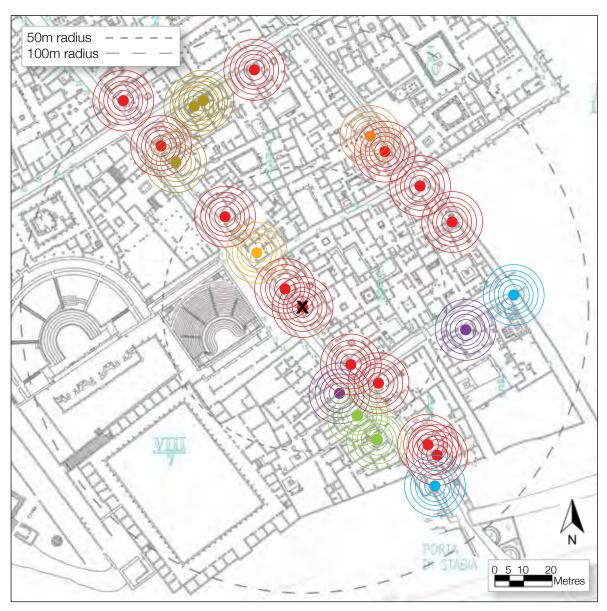
Case study 11: I.2.8 Pompeii

The bar at I.2.8 has a good mix of trades surrounding it within the 100-metre radius, making for a truly multisensory experience for those travelling through the neighbourhood. This seems to have been a popular part of town to set up business. Not only is it close to a city gate but the theatre district is also on the doorstep, offering a high number of potential customers. Bars dominate this stretch of the Via Stabiana just as they do along the Via dell'Abbondanza. The bakery and three bars directly opposite the little theatre/odeon were

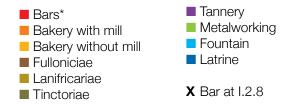


^{*}The bars at VII.2.26, VII.3.4, VII.3.28, VII.9.49, VII.9.50, VII.54-55, VII.9.56, VII.11.8 are not part of the survey but included for completeness.





Urban smell and sound categories



^{*}The bars at I.1.1a, I.1.2, I.1.9, I.2.1, I.2.11, I.3.5, I.2.18 and I.2.21 are not part of the survey but included for completeness.

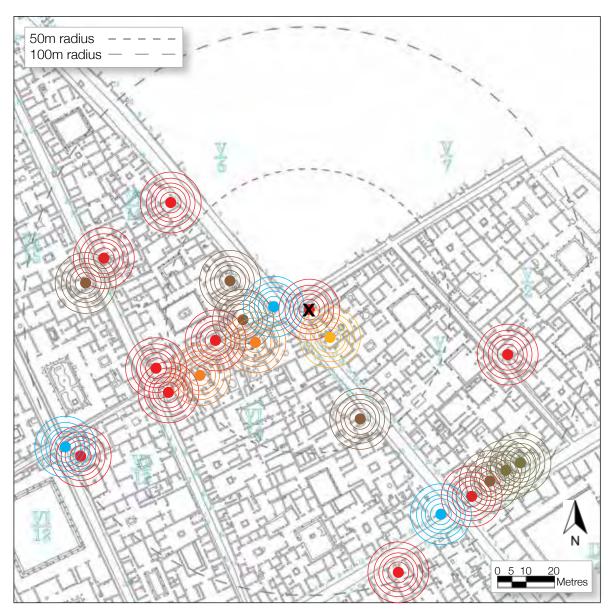
well positioned to tempt hungry audience members with their wafting food smells. As there is such a high proportion of bars along this stretch of the Via Stabiana, it might not be unreasonable to imagine that some bar staff acted in a similar way to the ambulatory tradesmen mentioned above (pp.229-230), calling out their wares in an attempt to attract customers. This area also has its fair share of trades with less-pleasant smells and invasive sounds as there are tanneries, *lanifricariae* and metal workshops, which would have added to the smell and soundscape. Also, a specific soundmark of this area would have been the noise from the theatre, with cheering, applause and sounds from the performance that was taking place (see also case study 15). 600 The degree to which these sounds would have been audible to the people in the bars is difficult to calculate, particularly as, unlike the large theatre, the odeon was roofed. Nevertheless, it seems fair to conclude that some of these sounds would make their way into the bars. The accumulation of sounds and smells circulating around this part of town would have made for a lively sensory experience. But what is particularly interesting about this area is that the sensescape would have changed drastically when events took place at the theatre, especially before and after a performance when the crowds swarmed out into the streets. Noise levels in particular would at times have marked this neighbourhood out as auditorily distinct.

Case study 12: V.1.13 Pompeii

It is not so easy to assess the businesses surrounding the bar at V.1.13 as not all of this area has been uncovered. However, this neighbourhood has some different characteristics from the previous examples. Although again food and drink outlets dominate, there are a number of textile workshops — five *fullonicae* and two *tinctoriae*. The *fullonicae* are located along and close to the main road and, as this is also a popular location for the bars, it is not surprising that they should be neighbours. However, only two of the bars are in particularly close proximity, with the bar at V.1.1/32 additionally having two *tinctoriae* close by. That so few bars were located close to the *fullonicae* and *tinctoriae* may suggest that the majority of the bars steered clear from setting up shop near to these odiferous workshops, but as we have seen (case study 10), that may not have been the case. As with the other samples, we again see the presence of bakeries and also three fountains, fairly evenly located throughout the area, which would have added to the soundscape. Again this sample displays a mixed bag of trades, although here, along with the bars, the *fullonicae* are particularly prominent.

⁸⁶⁰ For an overview of Roman theatre, see R. C. Beacham, *The Roman Theatre and Its Audience* (London; New York: Routledge, 1991); M. McDonald and J. M. Walton, eds., *The Cambridge Companion to Greek and Roman Theatre, Cambridge Companions to Literature* (Cambridge: Cambridge University Press, 2007), for the sensory experience of the audience, see 314; D. Johnston, *Theatre and Phenomenology: Manual Philosophy* (London: Palgrave, 2017).





Urban smell and sound categories



^{*}The bars at V.2.b, VI.13.17, VI.16.12, are not part of the survey but included for completeness.

Case study 13: I.3.1 Ostia

This area has a far less varied sensescape compared with the previous case studies at Pompeii. With an equal number of bars and bakeries, the surrounding streets would have been dominated by a food-oriented smellscape. However, of the two bakeries in close proximity to the bars, neither has its mills or ovens located close to the street, so the sights, sounds and smells associated with the business were somewhat removed.⁸⁶¹ Although the aromas of baked goods may have wafted through the streets as carts collected the produce for delivery, this would most likely have been early in the morning and so would not have affected the bars with their later opening times.862 Although people may have bought bread throughout the day, these bakeries have no evidence of counters, so sales may have been focused elsewhere. Walking along the Via di Diana, would have provided pedestrians with bursts of food smells as each of the three bars was equipped with cooking facilities. These bars may also have shaped the soundscape of the street, indeed, noise coming from the bar at I.2.5 may have been particularly noticeable. As well as being a sizeable establishment able to accommodate many guests, the benches that front the bar would have brought the chatter of customers close to the street. Although the noise may well have been irritating to the inhabitants of the neighbouring properties, it would have drawn attention to the bar and perhaps acted as an auditory advertisement to travellers in search of sustenance. Further activity in this street would have centred around the compitium, located on the opposite side of the road to the bar at I.3.1, a few doors down. 863 For customers approaching the bars from the Decumanus, the sounds of water flowing into the basin of the nymphaeum would have accompanied them for a few metres, receding as they neared the bars. As the Via di Diana is close to the forum and a large horrea, the food and drink outlets were well placed to take advantage of passing trade in this bustling and vibrant part of town.⁸⁶⁴

Case study 14: IV.2.3 Ostia

Like the bar at I.2.8 in Pompeii, the food and drink outlet at IV.2.3 is located on one of the main roads and close to a city gate. It is one of the first bars to be encountered on the way into the city and is close to a bath complex, which would have brought in additional clientele. Just across the road from the bar — and another

⁸⁶¹ For bakeries, see pp.238-239. For a description of Caseggiato dei Molini (I.3.1 Ostia) and Caseggiato del Balcone Ligneo, Caseggiato del Pantomimo Apolausto (I.2.2-6) and Caseggiato della Cisterna (I.12.4), see Bakker, *The Mills-Bakeries*, 16-60, 90-94, 97-99.

⁸⁶² See note 369.

⁸⁶³ A. Carandini, *Le Case Del Potere Nell'antica Roma*, Economica Laterza 713 (Roma: GLF editori Laterza, 2014), 31. For *compitium* at Rome, see Flower, *The Dancing Lares*, 116–136.

⁸⁶⁴ For the *Grandi Horrea* (II.9.7), see G. Rickman, *Roman Granaries and Store Buildings* (Cambridge: University Press, 1971), 43-53. Also *NSc* 1921, 360ff.

Case study 13

I.3.1, room 16 Ostia area sensecape





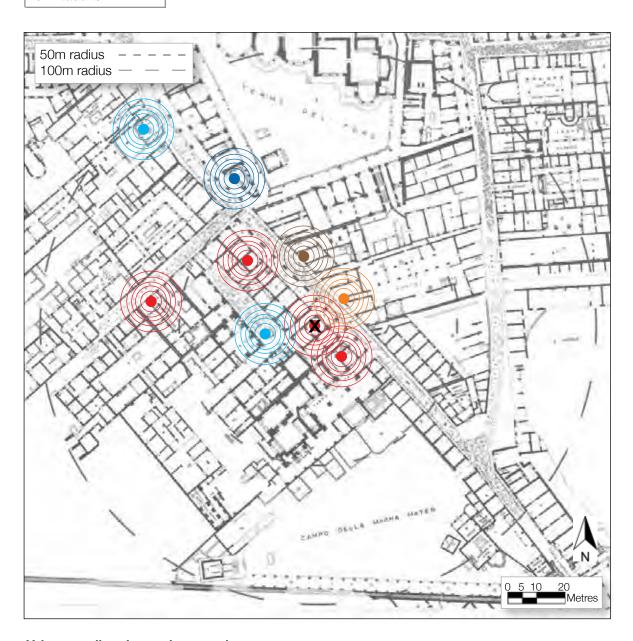
Urban smell and sound categories

- Bars
 Bakery with mill
 Bakery without mill
 Fulloniciae
 Lanifricariae
- Tinctoriae **X** Bar at I.3.1

Case study 14

IV.2.3, room 10 Ostia area sensecape





Urban smell and sound categories

Bars
Bakery with mill
Bakery without mill
Fulloniciae
Lanifricariae
Tinctoriae
Tannery
Metalworking
Fountain
Latrine
X Bar at IV.2.3

a few shops down — is a large bakery, flanked by shops, perhaps used to sell its goods. The bakery's oven is located towards the Cardo Maximus but it is difficult to assess the extent to which baking aromas would have seeped into the street. The third bar along this stretch of road was located opposite a *fullonica*. As the fulling equipment is set back from the road, the bar may not have been greatly afflicted by the smells it produced. Farther along the street is a large, 23-seater public latrine, the smells of which would no doubt have been evident on warmer days. Although the sounds from the nymphaeum in the northwest of the street would be too far off to interfere with the soundscape of the bars, the covered basin (*lacus*) located behind the bars would most probably have been heard by the clientele and passers-by. The fourth bar, located on a quieter street, is flanked by a number of commercial units, however, it looks out onto domestic properties, which would have changed the sensory dynamic to some extent. Overall, this is a fairly diverse neighbourhood with a good mix of trades.

Case study 15: II.6.5 Ostia

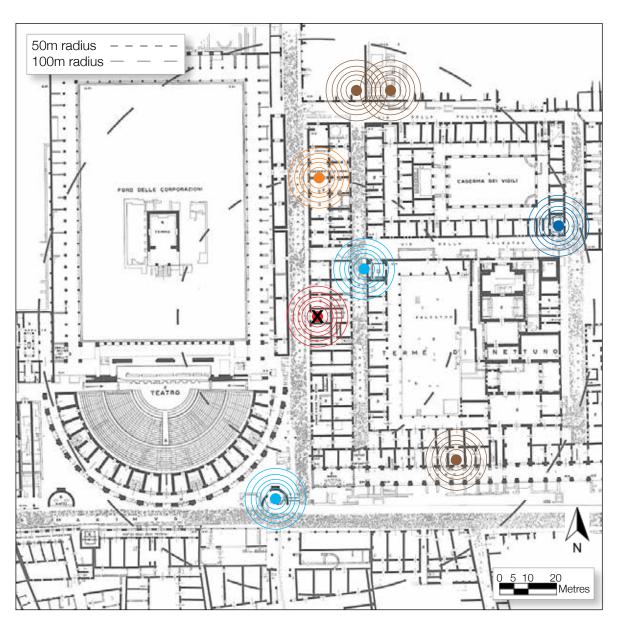
In this area, there is evidence for just one food and drink outlet, which is located on a secondary road off the Decumanus Maximus. Secondary road off the Decumanus Maximus. Secondary Road of the bar is a bakery (II.6.7), but as noted, it is unlikely that the smells of baked goods would have reached the bar. Fullonicae are found to the north and south of the bar, but are far enough removed to have little impact on the food and drink outlet. Like the bar at I.2.8 Pompeii, the main soundmark of the area would have been the theatre, although only episodic, this would have characterised the area sensorily. As well as the increased noise levels from the theatre, this would have been added to by those engaged in trade at the commercial offices located behind the theatre at the Piazzale delle Corporazioni (II.7.4). Softer and more distinct sounds may have been heard from people collecting water from the lacus in the street behind the bar. Overall, this area would have been characterised by the sounds from a high number of people — indeed, this may well have been further enhanced by visitors to the large baths complex at II.4.2. We might therefore expect the smells of food and drink outlets to be pervade this neighbourhood in an attempt to take advantage of the crowds. So it seems surprising that more bars did not set up in this area. It may be that the theatre, Piazzale delle Corporazioni and the baths had their own facilities to accommodate hungry visitors. Whatever the case, this neighbourhood goes against the general consensus found in the ancient literature that theatres, baths and high footfall attracts food and drink outlets.

⁸⁶⁵ Hermansen additionally identifies II.6.1 as a bar, but there is no sound evidence to back this up, Hermansen, *Ostia*, 146-147.

Case study 15

II.6.5 Ostia area sensecape





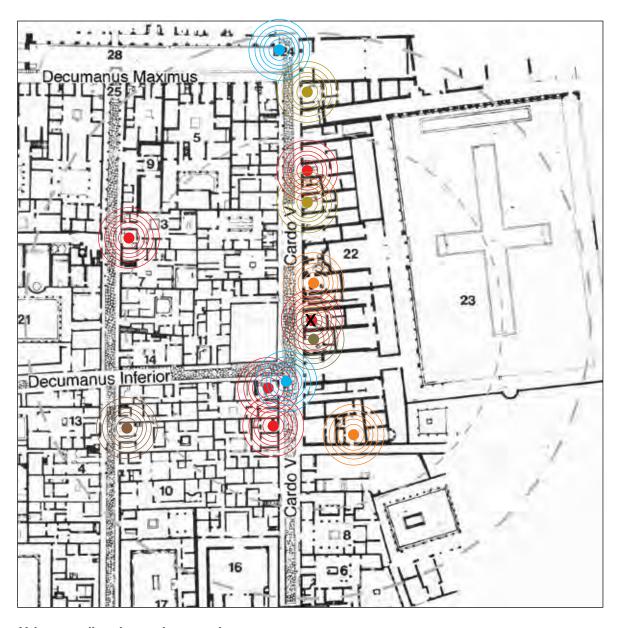
Urban smell and sound categories



Case study 16

Ins. Or. II.6 Herculaneum area sensecape





Urban smell and sound categories

■ Bars
■ Bakery with mill
■ Bakery without mill
■ Fulloniciae
■ Lanifricariae
■ Tinctoriae
■ X Bar at Ins. Or. II.6

Case study 16: Ins. Or. II.6 Herculaneum

The bar at Ins. Or. II.6 is well positioned on the busy Cardo V, which has a further three bars located along it. This street has a myriad selection of trades emitting sounds and smells into the streetscape. As well as the aromas of food coming from the bars, the two bakeries would have added another layer to the sensescape. The bakery at Ins. Or. II.8 (Fig. 7.40c) would have provided the most pervasive sensory stimuli as its oven and mills were close to the street. In fact, passers-by would have come into close contact with the animals turning the mills, providing a highly visible reminder of the milling process. The large number of bronze dishes used for baking tarts and cakes that were found here, not only attests to the clatter and clang of pans but also to smells of goods other than bread.866 Directly next door to the bar, a tinctoria would have provided some lesspleasant odours, which may well have seeped into the main bar room. As well as the smells and heat from the furnace, a latrine at the front of the shop (in a similar manner to the one in the bar), would have resulted in the stench of human waste mingling with those of the mordants. With two further textile workshops along this stretch of road, pedestrians would have experienced alternating smells from foul to fragrant. However, the balance of smells would have been subject to temporal change, and as the textile workshops closed for the day, the smells from the bars and bakeries would have dominated. With two fountains, one diagonally across from the bar at Ins. Or. II.6 (decorated with a depiction of Neptune) a lively soundscape would have been provided. This sample has a diverse mix of workshops providing a sensorily wide-ranging experience for bar customers in search of refreshment. However, for the bar at Ins. Or. II.6 it would have been sounds from the fountain, and the attendant people, along with the smell from the tinctoria next door that would have had the most impact on the internal environment of the bar.

Conclusion

The mapping and analysis of the case studies shows that the food and drink outlets were located in highly diverse sensory neighbourhoods. For example, the bars at VII.2.32, I.2.8 Pompeii and Ins. Or. II.6 Herculaneum (case studies 10, 11, 16) all have a wide variety of different trades (including bakeries, textile and metal workshops) within a 100m radius. These would have provided the area with myriad episodic sensory events as people moved through the streets. However, in some areas one particular trade dominates. The bars, such as in the neighbourhoods surrounding I.2.8 (13 bars), I.8.8 (11 bars), and V.1.13 (10 bars), often

⁸⁶⁶ M. P. Guidobaldi, *Ercolano, guida agli scavi* (Naples, Electa Napoli, 2009), 51-2; A. Maiuri, *Herculaneum*, 7th English ed, Guide-Books to the Museums and Monuments of Italy, no. 53 (Roma: Istituto poligrafico dello Stato, Libreria dello Stato, 1977), 57.

monopolize areas with high traffic levels. In the case of I.2.8 and I.8.8, five bars are within a 50m radius and located on main through routes. These streets would have had a distinct olfactory landscape, with food smells peaking at noon and the eighth to ninth hour (the main meal times).

Another area in which we see a proliferation of one particular trade is Regio VII (case study 10), where we find 10 *lanifricariae*. Sixteen bars are located in this area — often in close proximity to the textile workshops. Despite being off of the main drag and surrounded by seemingly odiferous trades, neither aspect appears to have been a barrier to coexistence. This scenario is also evident in the southern part of the Via Stabiana (case study 11), where a tannery was located close to two bars (also case study 12). This suggests that this type of sensory environment was not considered to be a deterrent to customers, and cautions against us putting our 21st-century sensibilities onto those of the Romans.

Although smells can be easily habituated, noise is a little different and some bars would have experienced high levels of auditory nuisance (case studies 9, 10 and to a lesser extent 16). Metal workshops, for instance, would have filled the streets with the loud tap of the smithy, a noise that is hard to block out. However, the times at which the metal workshops operated may well have meant that noise was limited, and that the evening guests of the bars were little affected.

Although the focus of this study is on the bars and their place within the commercial landscape, it is worth turning this analysis on its head to note that the bakeries and the textile and metal workshops seem to have

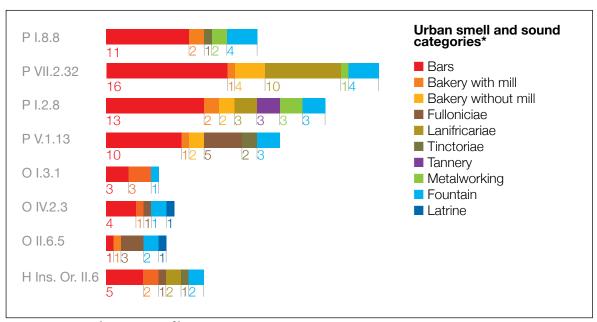


Fig. 8.1 Case study sensory profiles.

*The colour denotes the trade type and the numbers beneath denote the number of premises of each type within the case study area.

had no concerns about being in the same environs as the bars. Although the smells and sounds emanating from the bars would not seem generally unpleasant or overly intrusive, their trading hours would not have matched other businesses. So, for workshops that doubled as living spaces, late-night noise from a lively bar could be an annoyance, just as today.

When examining the sensory profiles, one feature is particularly evident. Although each neighbourhood tends to have a mixture of trades, one aspect is common to all of the eight case studies: there is at least one bakery and one fountain. This suggests that these two features, along with the bars, were amenities that were intrinsically linked to everyday life. As such, we need to see the role of the bar as a central component of Roman urban living and the bars should not be sidelined as noisy, dingy dens of drunkenness, gambling, prostitution and brawls.

9. CONCLUSION

This thesis aimed to investigate the design, functionality and lived experience of the Roman food and drink outlets at Pompeii, Herculaneum and Ostia. In particular, it looked beyond the archaeology and literary texts — the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. Roman bar. In the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. In the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. In the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. In the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. In the usual route taken by scholars — to try to uncover what it was actually like to visit a Roman bar. Through a survey of 147 properties, I used the methodology I had developed to collect data across all three sites, providing a consistency that made accurate comparisons possible. This comparative approach highlighted nuances in the construction of fixtures and fittings — features that would not be apparent if just one site was studied. These data provided a much broader understanding of the design practices, geographically and temporally, than has previously been achieved. Building on the exploration of commercial design practices, I was able to produce the first sensory study of the food and drink outlets. By developing new methodological approaches, fresh insights into the lived experience were demonstrated, illustrating the integral nature of the bars in the lives of the urban community.

A number of differences were found in the design of fixtures and fittings, and the spatial arrangement of the bars, elements of which would have affected how these establishments functioned. For example, although Ellis's study found that L-shaped counters were preferred at Pompeii, my thesis provides a broader picture of commercial design practices by demonstrating that across three sites, there was little consensus as to which particular counter shape best suited the sale of food and drink, as each tended to favour a particular counter form. Furthermore, I offer fresh insights into the decision-making processes involved in setting up a bar.

An analysis of the counters' square footage revealed that the choice of counter shape was not necessarily based on the size of the main bar room alone, as often an L- and U-shaped counter took up the same footprint. The

⁸⁶⁷ For example, see Ellis, 'The Pompeian Bar"; Hermansen, *Ostia*, 125–205; Keiburg, "Römische Gastronomiebetriebe". Mac Mahon, "The Taberna Counters," 70–87.

⁸⁶⁸ I have continued to use this methodology for the analysis of the bars at Lucus Feroniae and Alba Fucens.

⁸⁶⁹ Ellis, 'The Pompeian Bar," 43-44.

choice of shape was likely to have been influenced by the goods the proprietor wished to sell. Although 58% of the L-shaped counters contained *dolia*, all of the U-shaped forms included them. The fact that numerous *dolia* embedded in the counter would have reduced service, display and preparation areas, suggests that the sale of food, whether prepared and eaten on-site or taken away, played a greater role in some of the bars. Find Indeed, it seems likely that foodstuffs sold in the bars were also intended for home consumption, as wine was, and that these establishments had a dual role, acting as 'grocery' shop and bar. Find Prepared foods, in particular, would have been essential to the lower classes who had limited cooking facilities. Find Other foods sold in the bars, such as cheese, honey and ham, could easily be assembled to make a meal at home. A further consideration, that adds weight to this theory, is that women (and children) — who were not supposed to frequent bars — also needed to acquire food, and street-side service at the local bar would have been a convenient option. Find We therefore need to see the role of the bar within the economic environment slightly differently, as they would have attracted a wide customer base and traded more consistently throughout the day rather than just peaking at meal times. This study therefore, changes the received wisdom of the bars and shopping in the Roman world.

However, this type of dual-purpose shop is not suggested by the remains at Ostia, as one of the most significant design differences with the construction of the counters is that they do not contain *dolia*. The barrel-vaulted water basins found in these counters mark a move away from food sales being an integral part of the counter design to the provision of beverages instead, a design decision driven by sumptuary laws rather than business needs. Further differences in the way the Ostian bars functioned compared with the other two sites are illustrated by the I-shaped counters that were built up against a wall — a design not seen at the other two sites. This 'counter' does not form a barrier between customer and staff or act as a surface on which to prepare and serve goods to customers. In particular, this counter form does not lend itself to street-side service in the same way as the counters at Pompeii and Herculaneum, which points to an outmoded practice. In fact, an examination of the L-shaped counters at Ostia reinforced this conclusion, as the width of the street-facing arm tends to accommodate just one client, in contrast to the counter fronts at Pompeii and Herculaneum that could serve a number of guests. As many of the Ostian counters are dated to the Trajanic–Hadrianic period, this new design and functionality demonstrates that proprietors adapted and tailored their

⁸⁷⁰ For other food retailers, see Frayn, *Markets and Fairs in Roman Italy*; Holleran, "Shopping in Ancient Rome," 159–93.

⁸⁷¹ Wine to take away, see note 665.

⁸⁷² See Garnsey, Food and Society, 43-61; 113-27.

⁸⁷³ Women and bars, see McGinn, *Economy of Prostitution*, 15–22.

working environments to reflect new practices over time.⁸⁷⁴ However, further studies are required to confirm that Ostia is not an anomaly and marks the trend hypothesized here.

This thesis also highlights a level of experimentation on the part of the bar owners as they sought to establish the most appropriate design of fixtures and fittings for a new and evolving cultural phenomenon.

This is particularly evident at Pompeii, where we see not only unusual counter shapes but also the impractical type 3 hearth design that protrudes into the customer area. As there was such a low take-up of these designs it seems fair to assume that they were not considered to be appropriate.

Insights into other aspects of commercial design are also uncovered in the thesis. Although it has been argued by Ellis that the position of the counter was determined by the direction of ambulatory traffic and/ or the cult of the right, in some cases these considerations could not be brought in to play.⁸⁷⁶ Through a close study of the remains along with the floor plans, I show that in a number of cases (37, 38%) the architecture of the shop played a key role in where the counter was positioned. For shops with two wide entrances or with doorways inconveniently placed, the choice of where to site the counter was sometimes limited or predetermined. This finding is important to bear in mind when trying to uncover the motivations behind the spatial arrangements of commercial establishments, as if ignored it can lead to false results. The position of the hearth, the other main fixture in the bars, also revealed instances in which a conscious decision was made, especially when it was placed at the front of the shop — a position that was not ideal as it often blocked part of the entrance way while staff were working there. This implies that expelling fumes was considered to be more important than customer flow, or that selling hot goods street-side was the main business driver.

Additionally, this thesis explores fresh research avenues that have highlighted important implications for the ergonomics of the working environment of the bars and the well-being of the staff, an area originally explored by Mac Mahon but more fully exploited here.⁸⁷⁷ The heights of the counters — data collected by Ellis at Pompeii but not explored — showed that there was significant variation across the three sites, which, given that the counters were all supposedly to serve a similar function, was puzzling. Put in context with modern design guidelines for ergonomics, less than half (40, 46%) of the counters were within the recommended height for food preparation (for men and women), with the remainder making for potentially uncomfortable

⁸⁷⁴ For the dating of Ostian buildings see Meiggs, Roman Ostia, 535–57.

⁸⁷⁵ Unusual counter shapes at I.14.15, VII.2.32-33, VII.3.9 and VII.15.5 (not in my sample). The hearths at I.4.15, I.11,16 and I.9.11 (not in my sample).

⁸⁷⁶ Ellis, "The Pompeian Bar," 116-49. Ellis, "Pes Dexter," 160-73.

⁸⁷⁷ The comparison between Roman bar counters and the modern equivalents was first considered by Mac Mahon in "The Taberna Counters," 75–76.

working conditions for staff.⁸⁷⁸ My data also showed that the counters at Ostia tended to be at the top end of the scale whereas those at Herculaneum hovered around the lower half of the spectrum. In fact, the majority (7, 78%) of the free-standing counters at Ostia met with the modern height guidelines for customers to lean on, as in modern bars.⁸⁷⁹ Although a number of counters at Pompeii also met this height criterion (20, 23%), at Ostia, we see a conscious decision to install high counters as this was implemented city-wide. This finding demonstrates a shift of focus: at Pompeii, and to a lesser extent Herculaneum, the counters were optimised for staff usage, but at Ostia the height was tailored to customer comfort. Indeed, the analysis undertaken of the types of furniture found in the bars also suggests a more customer-oriented approach that developed over time, with larger, more practical tables and supportive high-backed seating. What we see at Ostia, therefore is the evolution of bar design — developed at Pompeii and Herculaneum — come to fruition into what we recognise today in modern bars as workable design solutions, that are quite literally designed for life.

Through the use of anthropometric data, I was able to exploit the archaeological data to the full, extending and enriching our understanding of what the material remains can tell us. Such anthropometric studies are so far largely untapped and could usefully be applied to a range of situations to provide insights into how the ancients interacted with their surroundings and what effects their working environment had on their physiology.⁸⁸⁰

New research avenues regarding how the space in these establishments was used revealed yet further differences in the configuration of the bars across the three sites. For example, the data show that as the square footage in the main bar room increased, many of the bars at Pompeii and Herculaneum took advantage of this to build larger counters. However, the size of the counters at Ostia remained reasonably constant, despite the fact that the bar rooms at this site were some of the largest. This suggests that a greater preparation and display area — as well as more space to accommodate customers at the counter — was preferred at Pompeii and Herculaneum over providing customer seating. This is in contrast with the Ostian bars, where the floor space was not encroached upon by the enlargement of the counter. Again, this implies that over time there was a diminishing need for a 'traditional' service counter, and customer seating and circulation space took precedence.

⁸⁷⁸ Lawson, *Restaurants*, *Clubs and Bars*, 82–85. This figure is based on the heights of 87 counters and does not include those that are ruinous or those built against a wall at Ostia.

⁸⁷⁹ The counters at IV.2.1 room 2 and IV.2.6 exceeded the modern maximum hight guideline.

⁸⁸⁰ For the relationship between design and human experience see Norman, *Design of Everyday Things*. For the practicality of Roman bar counters, Mac Mahon, "The Taberna Counters," 75–8. For the use of anthropometric data in connection with Roman kitchens, see Green, "Cooking Class," 133–47.

By plotting potential staff and customer routes onto the floor plans of the bars I gained valuable insights into the effectiveness of the way in which the fixtures and fittings were configured. For example, just under half of the bars (46, 47%) had at least one or more route overlaps. However, of these, only a small number (12, 12%) were potentially operationally problematic, with between two and five crossed paths. 881 One of the most common congestion points occurred when accessing independent hearths in the main bar room or a connected room, although some of this overlap could have been alleviated if a number of staff had been employed and assigned to specific work stations or duties. It therefore seems that some form of formalised service strategy would have been implemented and there is textual and pictorial evidence that points to this. As such, we get an insight into ancient practices of bar management. 882 Overall, the analysis indicates that most bars had a reasonably optimised layout indicating a degree of practical planning and understanding of how best to streamline service.

Regardless of the number of staff, the route plotting revealed that the most effective counter and cooking facility combination was where the hearth was built into the end of the counter arm, a particularly popular option at Pompeii. This configuration is specific to the bars and is a reasoned and planned design to cater to this industry's needs (just like milling or fulling installations). Indeed, the design, according to the work-triangle theory, would have promoted streamlined working routes. Of course, the working triangle is aimed at a single user and, although this might have been a good operational practice in bars with limited interior counter space, it would be less practical and somewhat inefficient for larger operations.

This thesis also makes important new discoveries regarding the customer capacity and takings of the food and drink outlets, which help to situate these commercial units with the economic framework of the cities. I drew on modern practices of design planning to calculate the possible customer numbers of the bars, highlighting the range of establishments, from those with counter-only service to those with a capacity to seat at least 32 guests. Based on this, it was possible to estimate the dB levels that would have been experienced in the different-sized bars. It also allowed me to estimate a baseline for the potential takings of the bar. For example, the establishment at V.2.13 Pompeii, which could comfortably accommodate 22 patrons, had estimated baseline takings of 88 asses per sitting, which equates to roughly 2007 denarii income per year, comparable to the annual earnings of a Roman legionary.⁸⁸³ Although in need of refinement, when combined

⁸⁸¹ For the work-triangle concept, see p.43.

⁸⁸² See for example, cooks, *Dig.* 33.7.15.pr, Petron. *Sat.* 95.8; Men behind counters, see Fig. 3.3; Female servers, see Figs 3.2, 3.8, 3.19.

⁸⁸³ N. Faulkner, Rome: Empire of the Eagles (Harlow: Pearson Longman, 2008), xiv.

with other data, such as rental and stock costs, this methodology could act as a guide to the economic viability of the food and drink outlets across the sites. On a broader scale, this methodology enabled me to estimate the total number of customers that could be accommodated in a one-hour time slot in all of the bars at Pompeii. This demonstrated that their number was adequate to meet the demand of the populace and testified to the extent to which the bars were an intrinsic aspect of urban life.

A primary aim of this thesis was to get an understanding of the sensory experience encountered by customers and staff when in a Roman food and drink outlet — the first of its nature focused solely on this ubiquitous trade. Previously, portrayals of bar life have tended to be somewhat one-dimensional — seen as smoky dives, serving up unpalatable foods to the dregs of society. However, the notion of the 'greasy' cookshop promulgated by the elite, who by their own admission did not frequent them, is predominantly a product of upper-class spin. To be sure, some bars would have had a smoky atmosphere owing to the location of hearths in the main bar room. And indeed, the clientele may have included some reprobates, but there is little evidence to suggest that this was the norm, and, as I have argued, the range of clientele was more wide ranging than previously thought. But, most importantly, this thesis shows that a shift in thinking is required regarding the depiction of the bars and especially the fare on offer. Although Ellis's investigation into the types of food on offer (an area also briefly covered by DeFelice) was enlightening, he tended to focus on the archaeological remains. However, taking a multidisciplinary approach, and drawing on the full spectrum of available evidence, I undertook the first comprehensive survey of the food and wine that directly related to the bars. Extending the work done by Potter, I was able to shed light on the often overlooked non-elite diet. These data enabled me to build a vivid picture of the bars' primary sensory landscape. 884 The data revealed a range of foodstuffs that included meat, fish, fruit and vegetables. From this I was able to extrapolate the smells, tastes and even cooking sounds that would have been present in the bars. The results of this analysis showed that the bars had a distinctive set of sensory characteristics with smells and tastes that varied from subtle (nuts, cheese, honey and wine) to pungent (onions, garlic and leeks), while the air would have been filled with the sounds of gurgling stews and the sizzle of frying meats. However, the examination of the spatial layout of the bars demonstrates that the extent to which food smells and cooking sounds inhabited the bars varied across the three sites. For example, customers at Pompeii and Herculaneum would have come into contact with the smells from goods stored in the dolia or been exposed to smoky fumes or cooking aromas generated by hearths in the main bar room. At Ostia, this part of the sensescape was absent, making for a significantly different experience both olfactorily and acoustically.

⁸⁸⁴ Potter, "The Scent of Roman Dining," in Bradley, Smell, 120–132.

As this study illustrates, there was far more to the sensory landscape of the bars than just the menu items. Latrines added pockets of foul smells to the air, while *lararia* added the heady perfume of incense — although again, this element was absent from the main bar rooms at Ostia. The people who visited or worked in the food and drink outlets also shaped its environment, with the smells of body odour, perfume or bad breath, and filled the soundscape with their chatter, shouts and singing. Additionally, the effects of alcohol might affect the physiological well-being of customers or produce sweating, dizziness and dehydration in staff working in hot conditions.

Bringing all of the evidence together, I provide a vivid representation of the sensory experience of the bars. To do this I employed a variety of illustrative methods, which were adapted and developed specifically for this project. For example, to visualise the data, I created sound and smell wheels, an approach more conventionally used to show the sensory elements of wine or perfume. The diagrams illustrate the gamut of smells and sounds associated specifically with the bars and importantly, they are based on objective evidence, not subjective ideas. This method identifies a potential avenue for future research and could be used as a comparative tool for a number of different data sets. For example, the sensory characteristics of other trades, civic activities and domestic residences could be used to facilitate interrogation of town planning and the effects on the sensory environment, for cities ancient or modern. However, the possibilities of this methodology are legion.

Working hand-in-hand with the smell and sound wheels, plotting the sensory elements onto plans of the bars revealed how olfactory and acoustic stimuli would have changed and overlapped as customers and staff moved through the space. In particular, this method demonstrated that the decisions made regarding the design and spatial layout of the bar had a profound impact on how it was experienced by customers and staff. The case studies show that although there were similarities in the characteristics of the food and drink outlets at, for example, Pompeii and Herculaneum — such as the positioning of hearths, embedded *dolia, lararia* and latrines — the impact of sensory events varied due to the geographical configuration. This in turn produced different combinations of smell or sound crossover and layering, giving each bar a distinct environment, although this was likely to have been perceived subconsciously by staff and customers. At Ostia, many of the features common to Pompeii and Herculaneum were largely absent from the main bar rooms, making for a far less varied sensescape. As this thesis has pointed out, the changes in functionality may well have stemmed from sumptuary laws restricting what the bars could offer. Considering the elite's disdain for strong smelling odours, especially those associated with kitchens, this could point to a manipulation of the sensescape based

⁸⁸⁵ For the criticisms levelled at the subjective nature of sensory studies, see p.20.

on upper-class sensibilities. The mapping also shows how different rooms within an establishment could offer varied sensory environments, an element illustrated by the tagged j-graphs, that offered insights into the spatial topology of the building along with a categorisation of sounds and smells.

The sensory analysis and map plotting was also undertaken at the macro-level of the bar in the cityscape, and sensory profiles were created to form unique fingerprints for individual neighbourhoods. This revealed that certain areas had their own particular smells and sounds that would have mingled with those of the bars and infiltrated the open-fronted bar rooms. This highlighted that the smells and sounds experienced in the bas were often subject to their surroundings, an aspect of their environment not generally considered. The mapping of the bars also showed that odoriferous neighbourhoods — such as those with a high number of textile workshops — were not a barrier to the siting of a bar, suggesting that the smells were not deemed to be a problem. From the point of view of potential customers, it might be thought that these bars would represent a less attractive prospect than those located in more fragrant areas, but the high number of bars situated within such neighbourhoods suggests this was not so, and that location near areas of high potential custom, such the forum or *macellum*, took precedence.

Looking at the physical context of the bars adds to the wider understanding of the senses, providing texture for the cityscape as a whole. The methodologies I have developed to highlight the sensory landscape of the bars — data collection, sensory wheels and floor-plan plotting — offers a far more nuanced sensory picture than has previously been assumed. Furthermore, such an approach — particularly the tagged j-graphs and the sensory fingerprints — can be used to objectively characterise, compare and study other urban contexts, such as the forum with its temples and sacrifices, or the busy markets with their various produce and slave auctions. The methodologies developed here have the potential to radically change the way we understand Roman urban life, which encompasses all levels of society. Based on objective data, these new methodological approaches extend those currently used in the analysis of sensory studies and will prove to be a pivotal tool to elucidate the broader study of urbanism.

The results of this thesis bring to light the various ways in which proprietors of food and drink outlets tailored the design of their businesses to fit their own particular business model. The examination of the archaeological remains identifies local variations in the design and layout of the bars that ranges from the subtle to the extensive. The analysis of the spatial layout shows how the ancients moved around and interacted with the fixtures and fittings as well as the extent to which such equipment was ergonomically practical and fit for purpose. It has also been possible to track some of the ancient proprietors' thought processes and

establish where conscious decisions have been made regarding the design and layout of the premises. Overall, this thesis demonstrates that although each site had similar installations in order to trade as a food and drink establishment, the design and spatial layout does not adhere to any rigid template. The design is flexible and fluid, adapted over time and moulded to new commercial demands. To fully understand this phenomenon, further exploration is required to assess the extent to which what we see at these three sites is representative of bars across the Roman empire.

The exploration of the sensory data extends our understanding of what it would have been like for the Romans to experience these spaces and has shown that they had a unique set of smells, sounds and tastes associated with them. This thesis adds to and complements previous work on the archaeological remains and the new emerging discipline of sensory studies by employing distinct methodologies, many of which can be applied to other areas of research. Indeed the use of sensory profiling and fingerprinting, established here, has the potential to significantly broaden and enrich our understanding of many aspects of the Roman world. This thesis also highlights a number of avenues for future research. For example, more questions need to be asked about who the clientele of the bars were, especially with regards to the apparent gender bias and the assumption that the only women who frequented these places were prostitutes. Additionally, the wider plotting of the sensory landscape of the sites would prove beneficial in the greater understanding of the urban environment, providing new streams of knowledge.

This study shows that, contrary to popular opinion (both ancient and modern), Roman bars were not the odoriferous dens of iniquity they have been portrayed to be — they were the glue that helped hold the Roman populace together, essential to the well-being of their customers, not just nutritionally but also spiritually, for camaraderie and entertainment. It sets these establishments in a fresh context, providing an insight into daily Roman life in a way not previously achieved, and it lays the foundation for objective study of similar businesses and areas that will further our understanding of the lived experience in the Roman world. This thesis demonstrates that the bars were designed for every day urban life, with a focus on the people who visited and worked in them. But, more fundamentally, this study reveals a more rounded and nuanced picture of the evolution of food and drink establishments, allowing us truly to understand what happens when a man walks into a bar.

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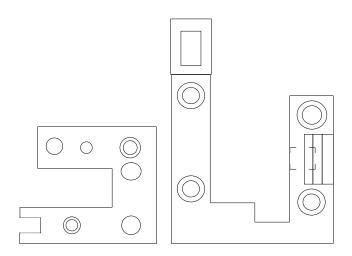
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A design for life

The lived experience of the Roman bar

Volume 2

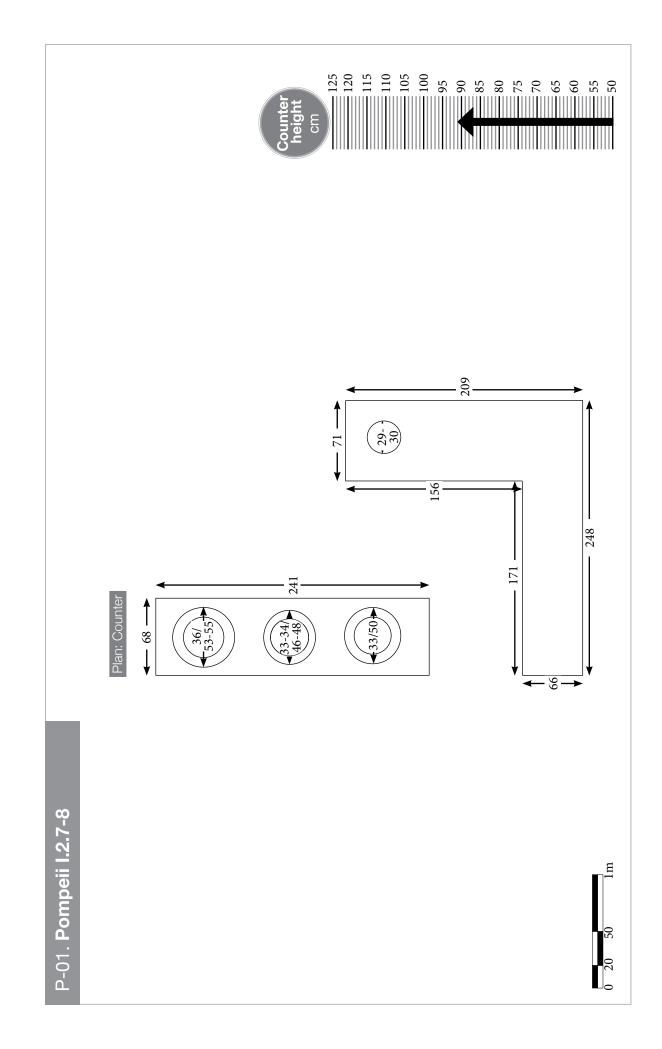
Paula Lock

APPENDIX 1 — PLANS AND IMAGES

This appendix includes the 97 bars surveyed and discussed throughout the thesis. Each has plan drawings, photographs and a snap shot of the site plan for context.

A short bibliography is also included for each bar.

All measurements are as accurate as possible, taking into account decay and reconstruction. Measurements are in cm.



P-01. Pompeii 1.2.7-8



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Ellis, "The Pompeian Bar," 218-220. Ruddell, "The Inn, Restaurant and DeFelice, Roman Hospitality, 184. Trollius, Gebäudeverzeichnis, 16. Tavern Business," 71, no. 6. Eschebach and Müller-



a. Façade of bar.





b. Counter tops with marble decoration

and embedded dolia.

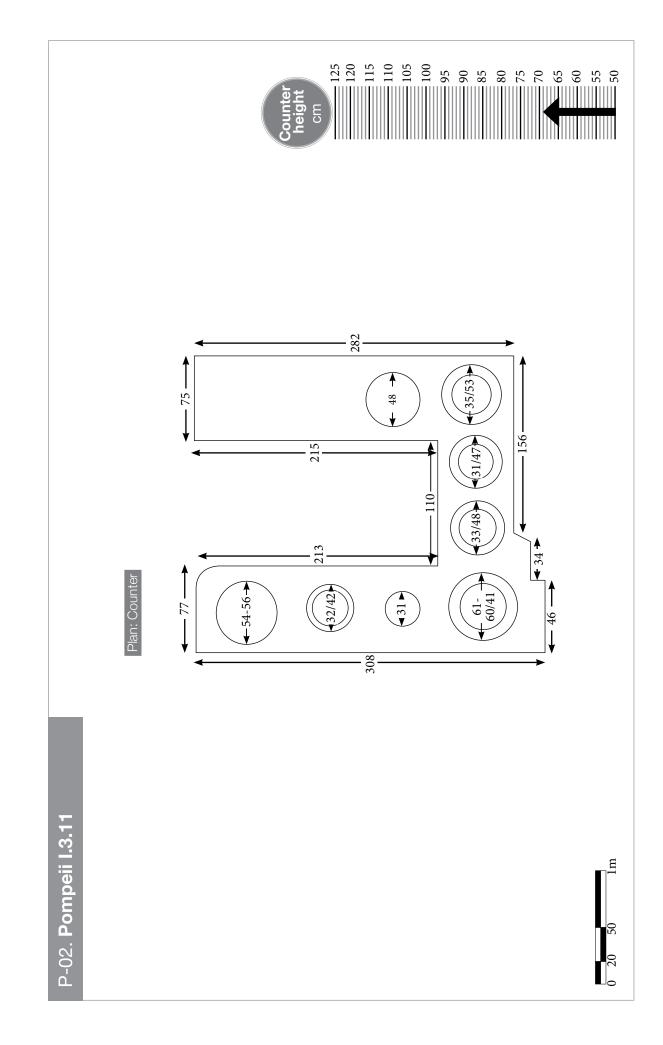


e. Back room with downpipe and bed niche.

d. Lararia above counter.



f. View from inside the bar.



P-02. Pompeii I.3.11



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Trollius, Gebäudeverzeichnis, 22. Fiorelli, Descrizione, 53.

Gassner, Die Kaufläden in Pompeii,

Ruddell, "The Inn, Restaurant and Tavern Business," 73-74, no. 13.



a. Façade of bar.



c. Counter embedded dolia.



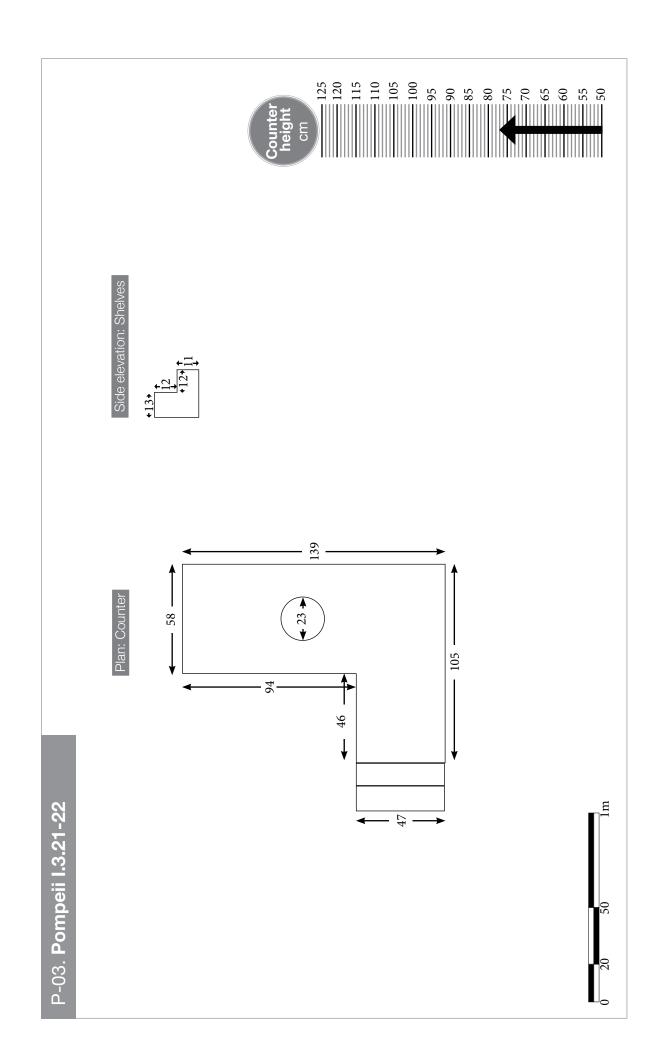
e. Interior view of working area.



f. Dolia embedded in the counter.



d. Side view of counter.



P-03. Pompeii I.3.21-22



Bibliography

Ellis, "The Pompeian Bar," 236-237. DeFelice, Roman Hospitality, 189-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 23-24. Fiorelli, Descrizione, 55.

Ruddell, "The Inn, Restaurant and Tavern Business," 74, no. 14



b. Façade of bar.

c. Remains of plaster on the front of the

counter.



f. Mouth of dolia embedded in the counter.

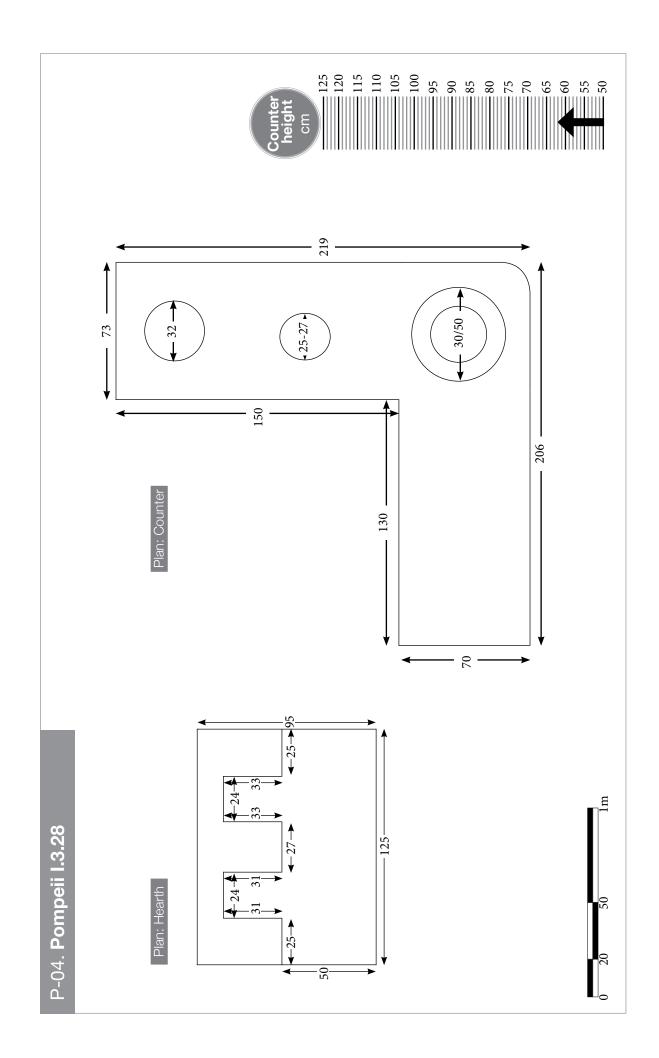




embedded dolia.

d. Counter with stepped shelves.





P-04. Pompeii I.3.28



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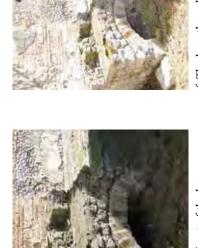


a. Façade of bar.



b. Counter top with marble decoration and embedded dolia.



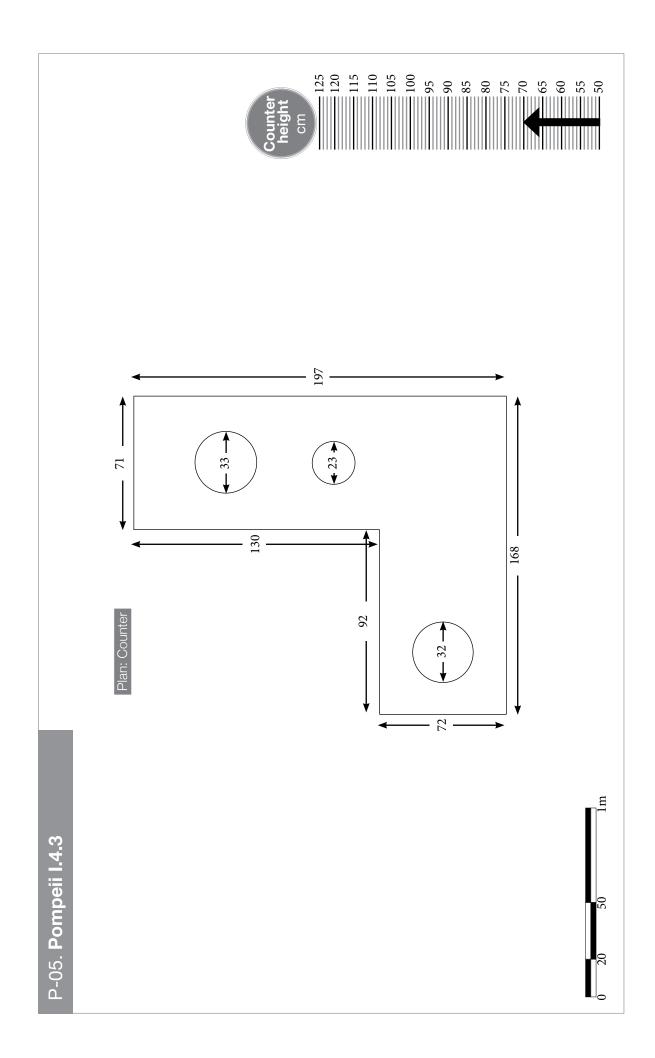


e. Hearth at the front of the bar.

d. Lararia above counter.



f. The hearth and counter.



P-05. Pompeii I.4.3



Bibliography

Ellis, "The Pompeian Bar," 240-241. DeFelice, Roman Hospitality, 190-191.

Eschebach and Müller-Trollius, *Gebäudeverzeichnis*, 26.

a. Façade of bar.

Fiorelli, Descrizione, 61.

Ruddell, "The Inn, Restaurant and Tavern Business," 74, no. 16.



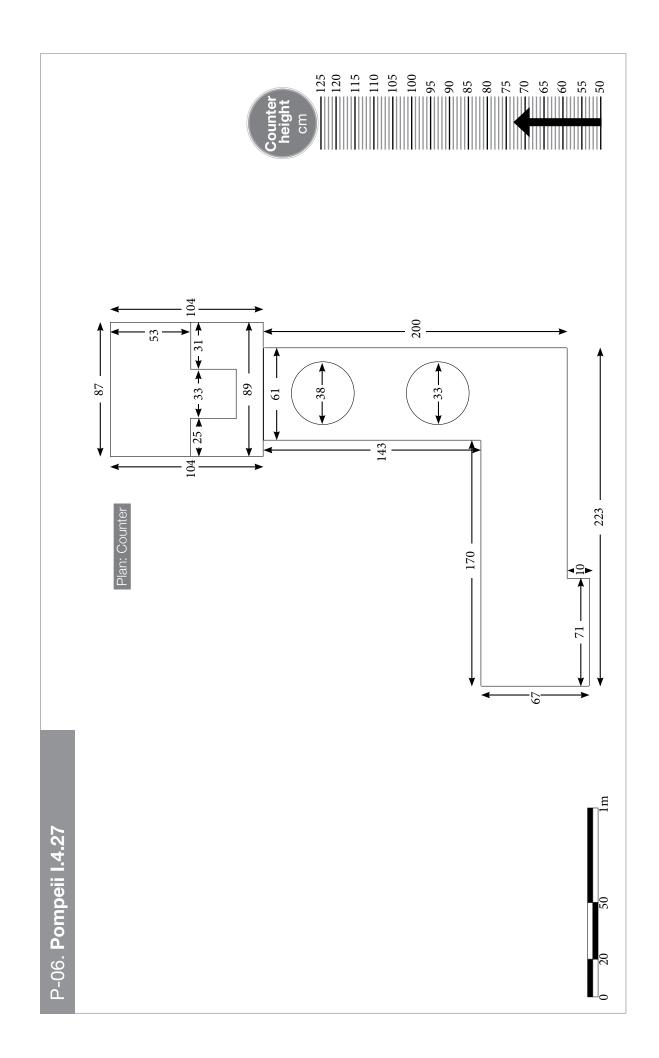
b. Façade of bar.



c. Counter top with marble decoration and embedded dolia.



d. Counter top with marble decoration and embedded dolia.



P-06. Pompeii 1.4.27



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a. Façade of bar.





b. Façade of bar, with stepping stones.

c. Counter top with slate decoration and embedded dolia.



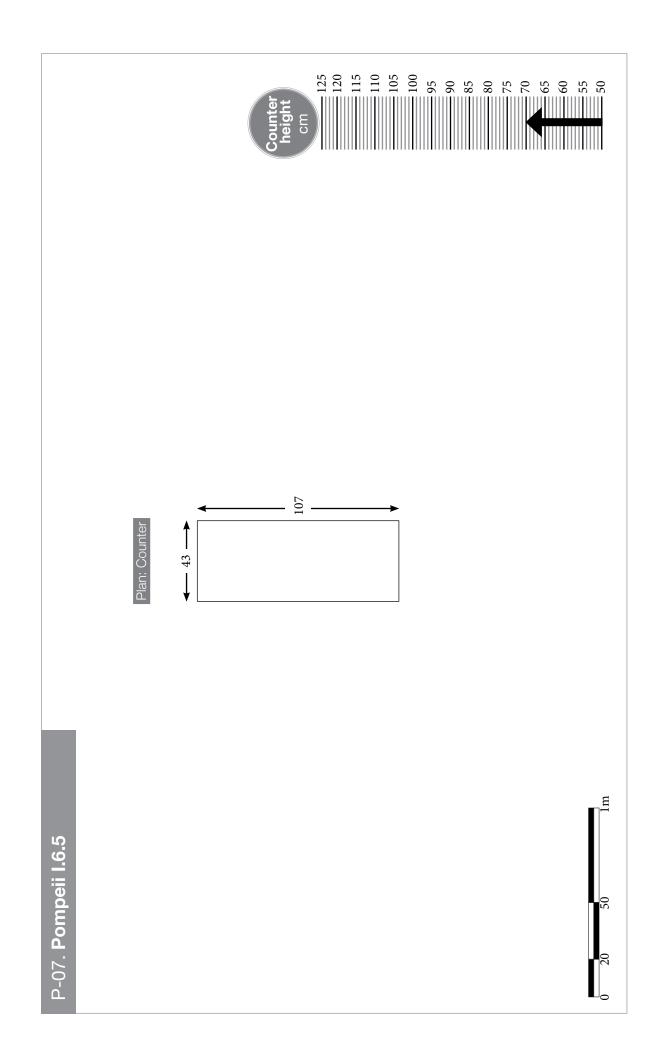
e. Latrine wall to right.

d. Side view of the counter and hearth.



f. Window in rear room.





P-07. Pompeii I.6.5



Bibliography

Ellis, "The Pompeian Bar," 245-247. DeFelice, Roman Hospitality, 192. Trollius, Gebäudeverzeichnis, 34. Eschebach and Müller-PPM I, 330-331



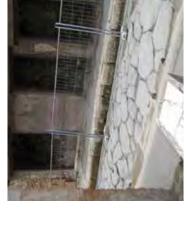
a. Façade of bar.





b. Remains of the L-shaped counter.

c. Remains of the L-shaped counter.



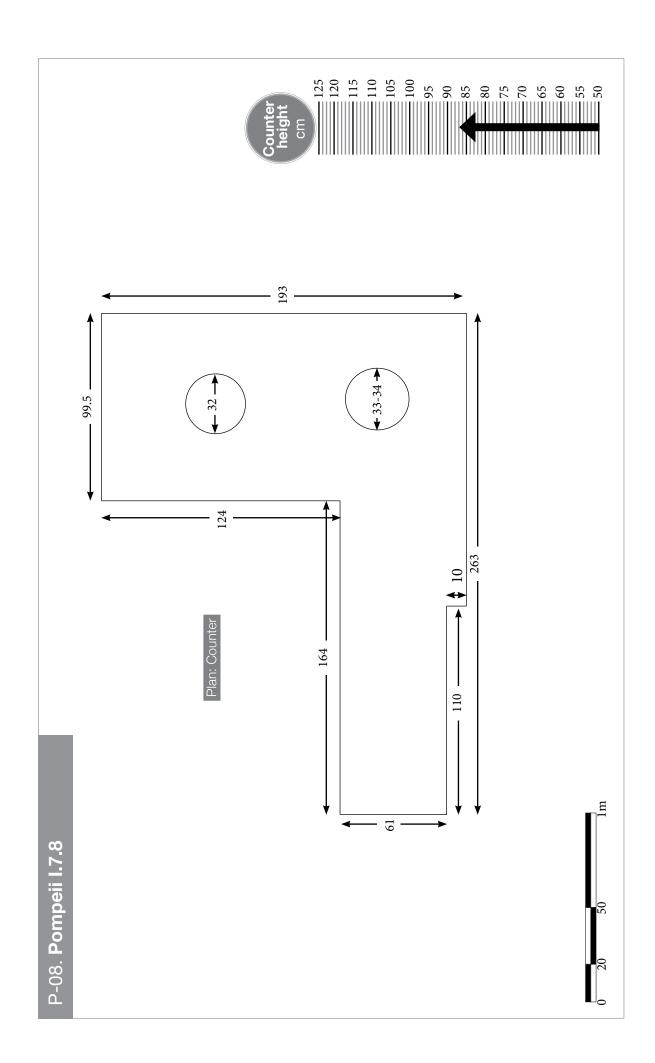
f. View from inside the bar.



d. View from the front of the bar towards the rear room.



e. View into the rear room.



P-08. Pompeii 1.7.8



Bibliography

Ellis, "The Pompeian Bar," 249-251. DeFelice, Roman Hospitality, 194-

Eschebach and Müller-

Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 40. Tavern Business," 76, no. 20.



a. Façade of bar.



b. Façade of bar.



e. View from within the bar, downpipe front left.

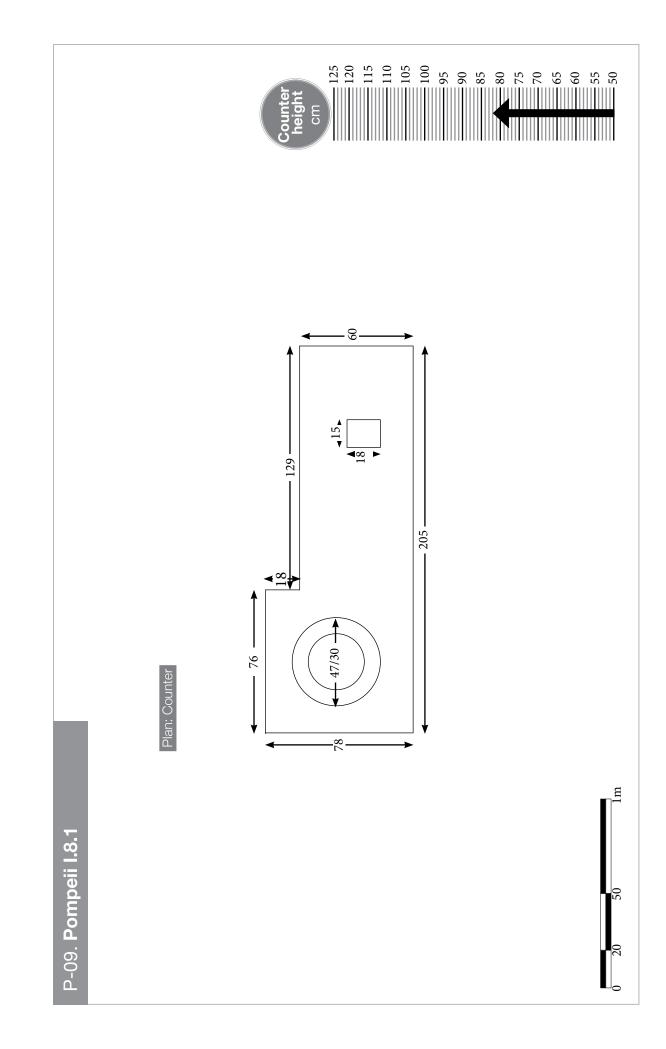
d. Counter top with marble decoration and embedded dolia.



c. View of the counter from within the bar.



f. View from the rear of the bar room.



P-09. Pompeii I.8.1



Bibliography

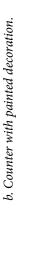
Boyce, 26, no. 44.

Trollius, Gebäudeverzeichnis, 42-43. Ellis, "The Pompeian Bar," 255-257. Jashemski, Gardens of Pompeii, Vol. Eschebach and Müller-

2, Appendix, 42, no. 45.



a. Façade of bar.



c. Lararia behind the counter.



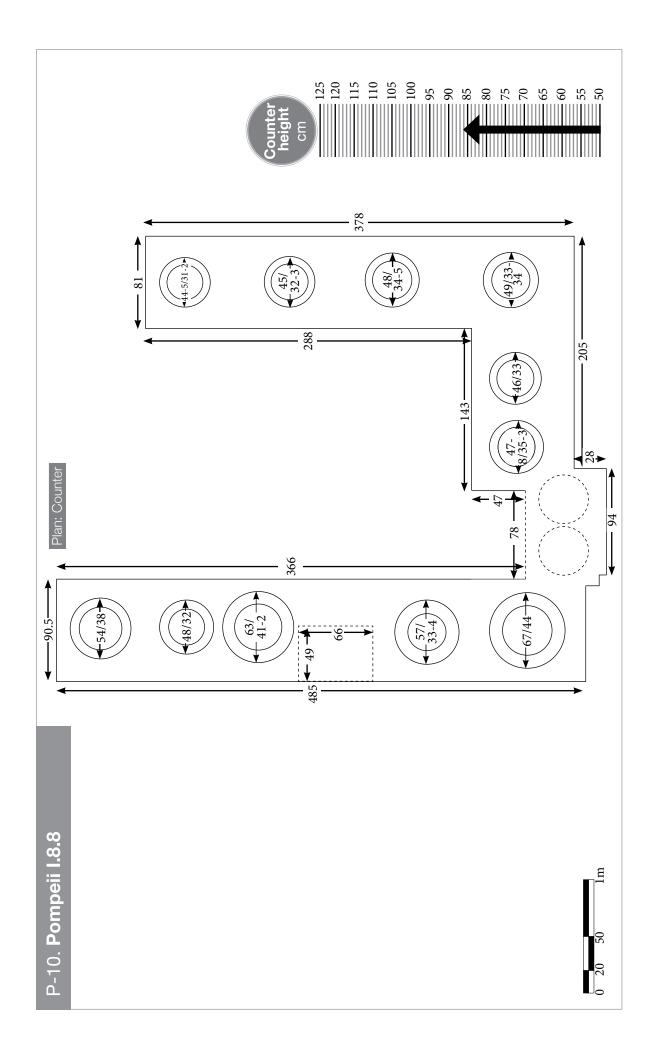
e. Feature at the end of the counter.



f. Dolia with stamp.



d. The bar room with counter (originally L-shaped) and lararia.



P-10. Pompeii I.8.8



Bibliography

Ellis, "The Pompeian Bar," 257-260. DeFelice, Roman Hospitality, 196-

Eschebach and Müller-

Jashemski, Gardens of Pompeii, Vol. Trollius, Gebäudeverzeichnis, 44. Fröhlich, Lararien, 252-253 (L8).

Ruddell, "The Inn, Restaurant and Tavern Business," 76-77, no. 22. 2, Appendix, 42, no. 47.





a. Façade of bar.



d. Ruinous hearth at the front of the

e. Painted triclinium at the rear of the establishment.



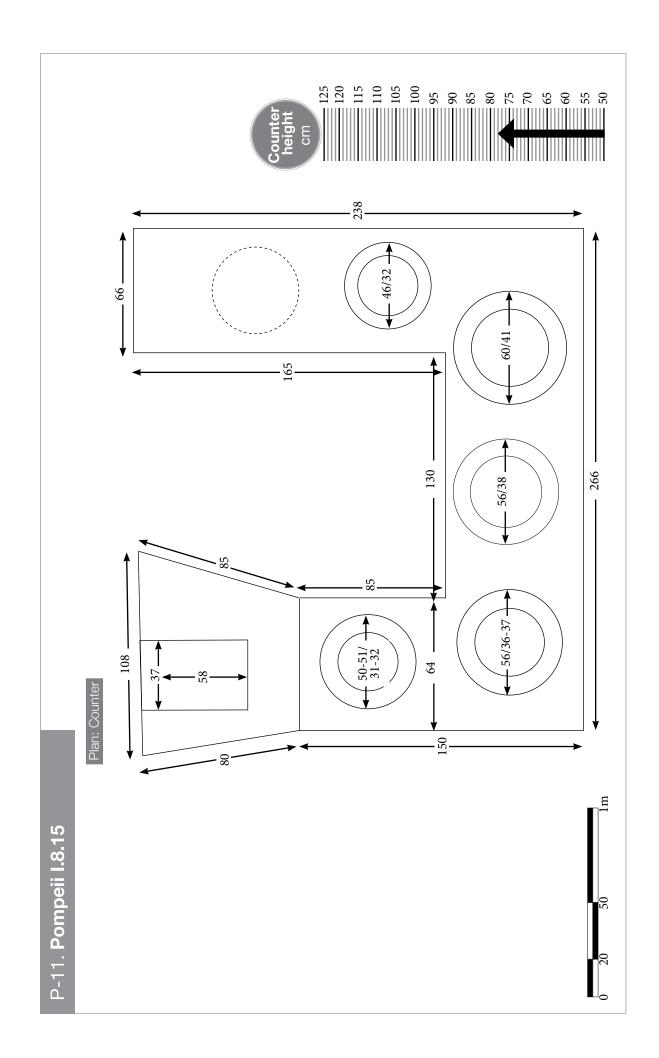
c. Interior view of working area.

and embedded dolia. Lararium painting b. Counter top with marble decoration

in the background.



f. Outside trinclinium at the rear of the establishment.



P-11. Pompeii I.8.15



Bibliography

Ellis, "The Pompeian Bar," 260-262. DeFelice, Roman Hospitality, 198. Trollius, Gebäudeverzeichnis, 46. Eschebach and Müller-

Ruddell, "The Inn, Restaurant and Tavern Business," 77, no. 25. PPM I, 844-846.



a. Façade of bar.





c. Interior view of working area.

b. View of the U-shaped counter.

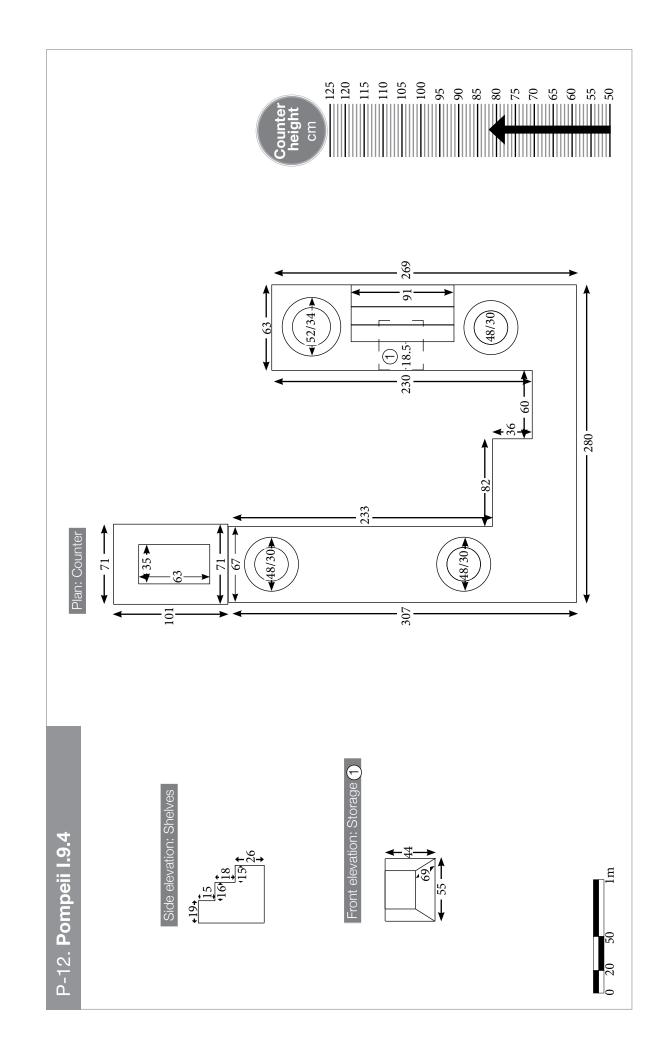


e. Painted wall decoration above the counter.

d. Lararia above counter.



f. Connected workshop with kiln and mortaria.



P-12. Pompeii I.9.4



Bibliography

Trollius, Gebäudeverzeichnis, 48-49. Ellis, "The Pompeian Bar," 262-264. DeFelice, Roman Hospitality, 199. Eschebach and Müller-

Ruddell, "The Inn, Restaurant and PPM I, 965.

Tavern Business," 78, no. 26.



b. Large U-shaped counter with dolia and stepped shelves.

a. Façade of bar.

c. Rear view of the counter.



f. Painted decoration of rear room.

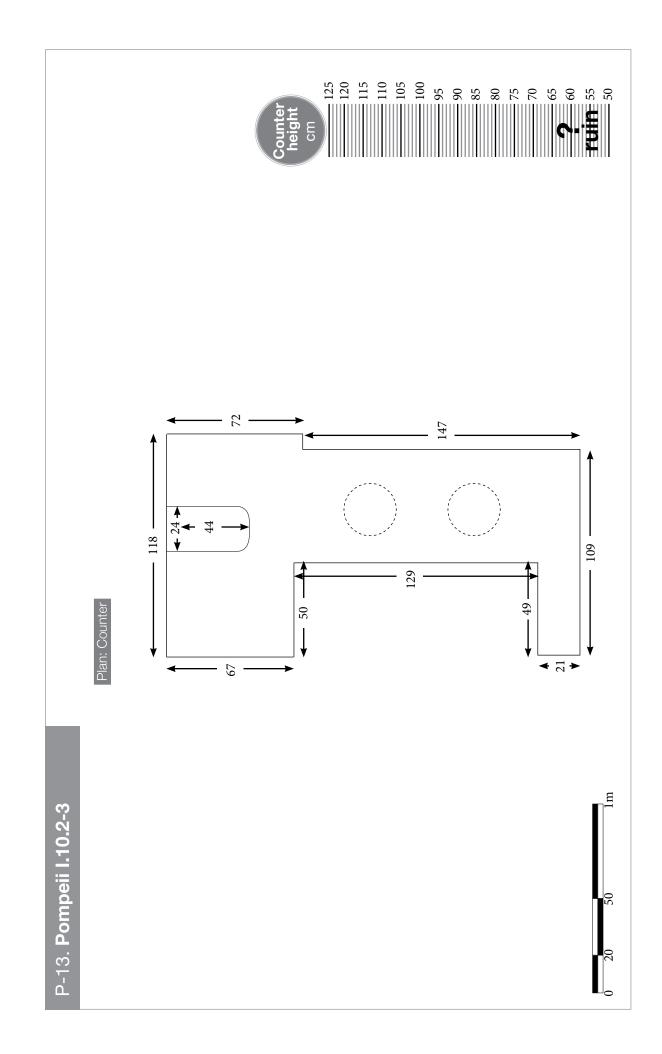


d. Counter top with marble decoration and embedded dolia.



e. Dolia, stepped shelves and storage in the counter.





P-13. Pompeii I.10.2-3



Bibliography

Ellis, "The Pompeian Bar," 266-268. Boyce, "Corpus of the Lararia," 27, DeFelice, Roman Hospitality, 200. Eschebach and Müllerno. 47, pl. 14,2.

Trollius, Gebäudeverzeichnis, 52. PPM II, 238-9.

Ruddell, "The Inn, Restaurant and Tavern Business," 78, no. 28.



a. Façade of bar.





c. End of the counter with attached hearth and dolia voids.



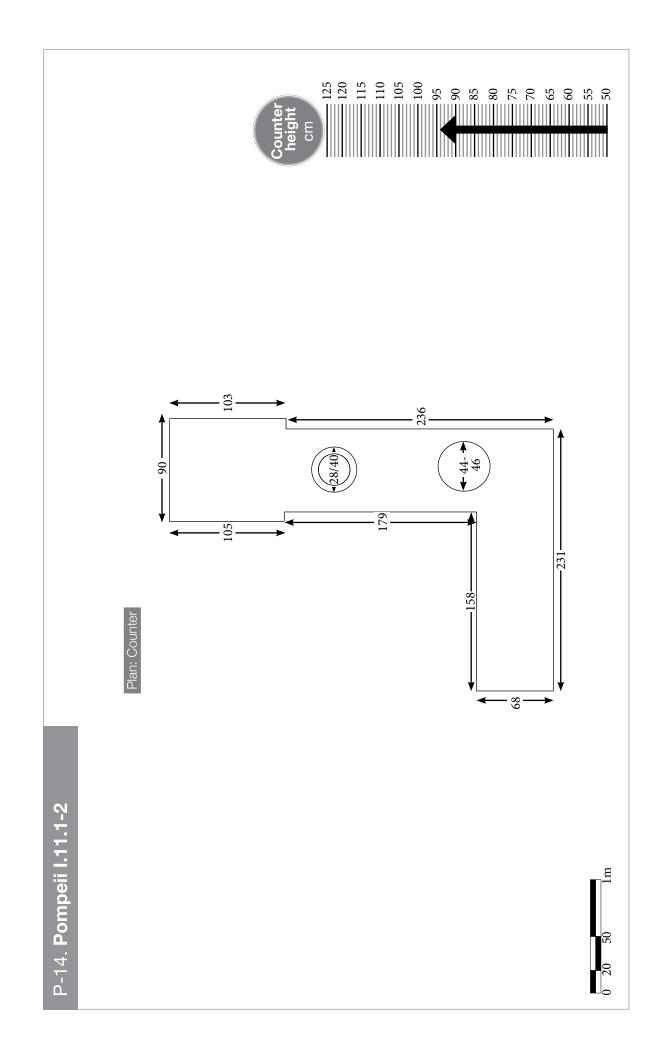
e. View into rear room.

d. Painted wall opposite the counter.



f. Lararia in the entrance to the house next door (I.10.3).





P-14. Pompeii I.11.1-2



Bibliography

Ellis, "The Pompeian Bar," 270-272. DeFelice, Roman Hospitality, 202-Boyce, "Corpus of the Lararia,"

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 57-58. PPM II, 506-515.

Ruddell, "The Inn, Restaurant and Tavern Business," 79, no. 30.



a. Façade of bar.



c. Interior view of working area.

b. Front of U-shaped counter with

marble decoration.



e. Room at the rear of the bar room with bench and lararium.

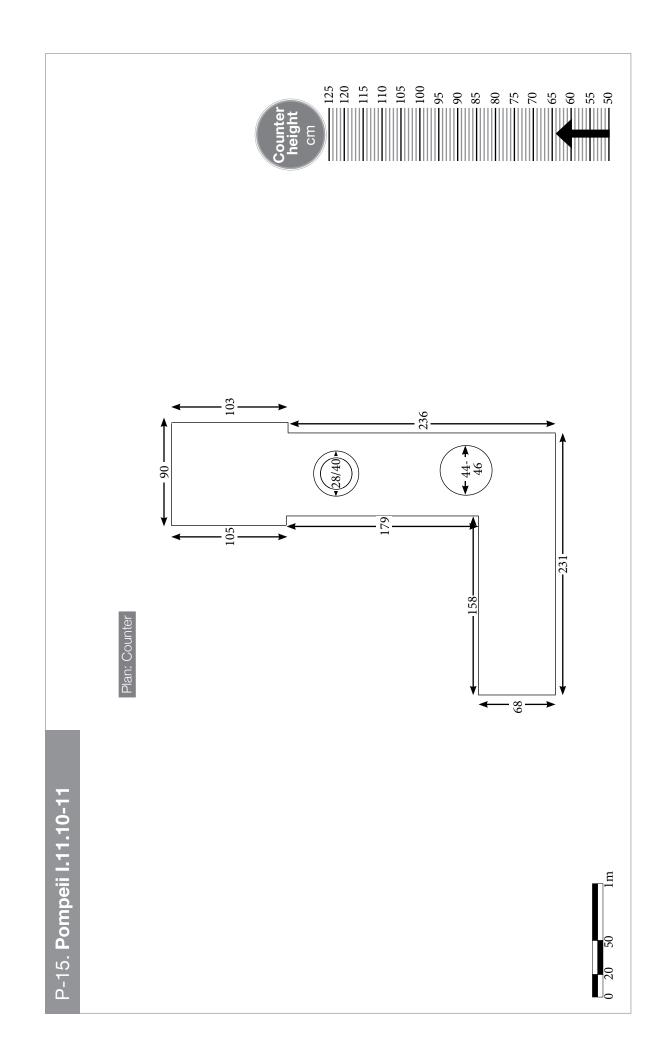
and the remains of stepped shelves and d. Inner arm of the counter with dolia

painted wall decoration.



f. Lararium on the façade of the bar.





P-15. Pompeii I.11.10-11



Bibliography

Ellis, "The Pompeian Bar," 273-275. DeFelice, Roman Hospitality, 203-204.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 59-60. Fröhlich, Lararien, 258 (L21).

Jashemski, *Gardens of Pompeii*, Vol. 1, 50-52.

Jashemski, *Gardens of Pompeii*, Vol. 2, Appendix, 51-

52, no. 72; 325, no. 17 *PPM* II, 570-81.

Ruddell, "The Inn, Restaurant and Tavern Business," 79, no. 31.



a. Façade of bar.



b. View into the bar room with L-shaped counter.

c. Interior view of working area.



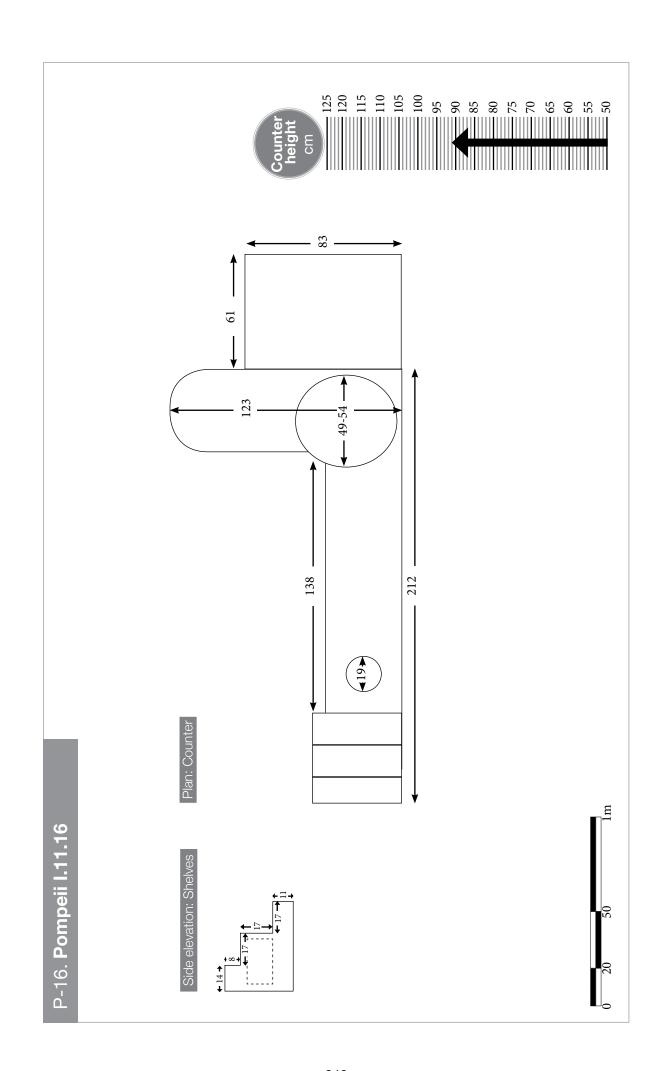
e. Lararium painting (serpent and altar) on the wall of the outside latrine.

d. Lararium painting in the rear of the

bar room with serpent.



f. The garden planted with vines.



P-16. Pompeii I.11.16

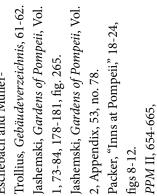


Bibliography

Ellis, "The Pompeian Bar," 275-277. DeFelice, Roman Hospitality, 204-

Eschebach and Müller-

2, Appendix, 53, no. 78.





a. Façade of bar.



b. Entrance into the bar.

c. The L-shaped counter with stepped

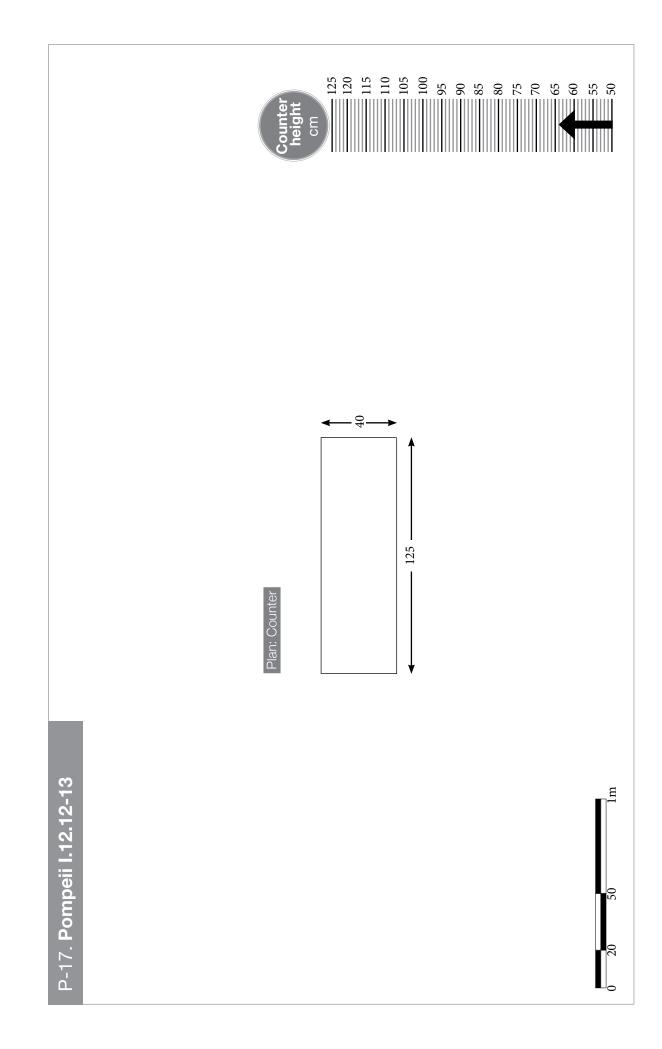
shelves.



f. Double lararia in the triclinium.



d. The counter with attached hearth.



P-17. Pompeii I.12.12-13



Bibliography

Gassner, Die Kaufläden in Pompeii, Ellis, "The Pompeian Bar," 283-285. Trollius, Gebäudeverzeichnis, 66. Eschebach and Müller-





a. Façade of bar.



b. The I-shaped counter.



d. Lararium adjacent to the counter.

e. View into the rear room from the front of the bar room.

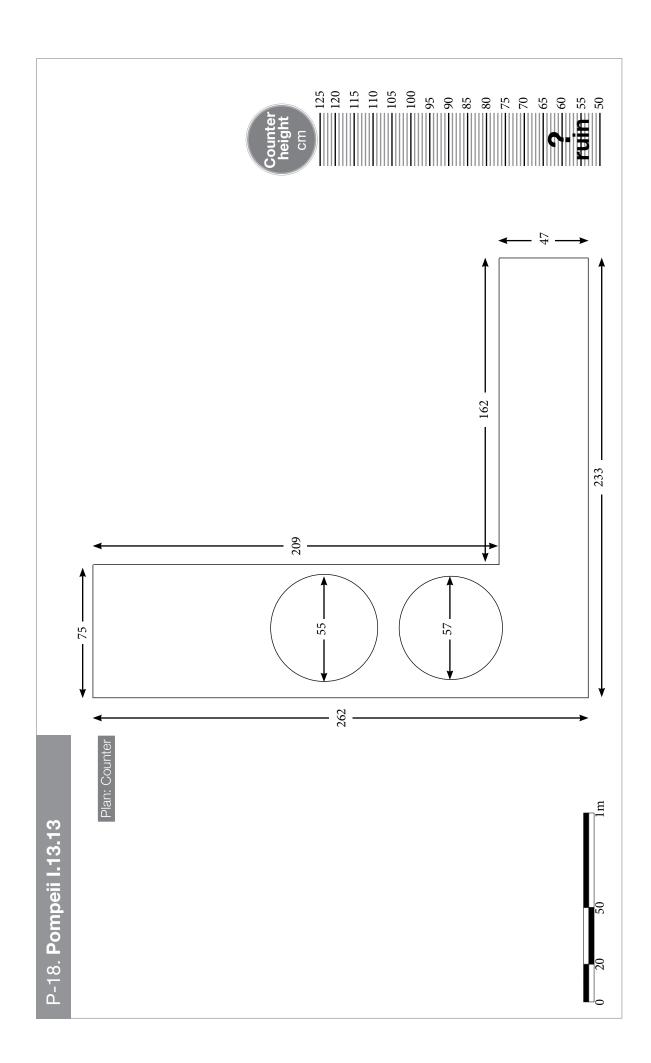


c. View of the side wall with lararium and remains of hearth (right).



f. View into the rear room from I.12.13.

PPM II, 831-2.



P-18. Pompeii I.13.13



Bibliography

Ellis, "The Pompeian Bar," 287-289. DeFelice, Roman Hospitality, 208. Trollius, Gebäudeverzeichnis, 68. Eschebach and Müller-



a. Façade of bar with bench outside.

b. Façade of bar.







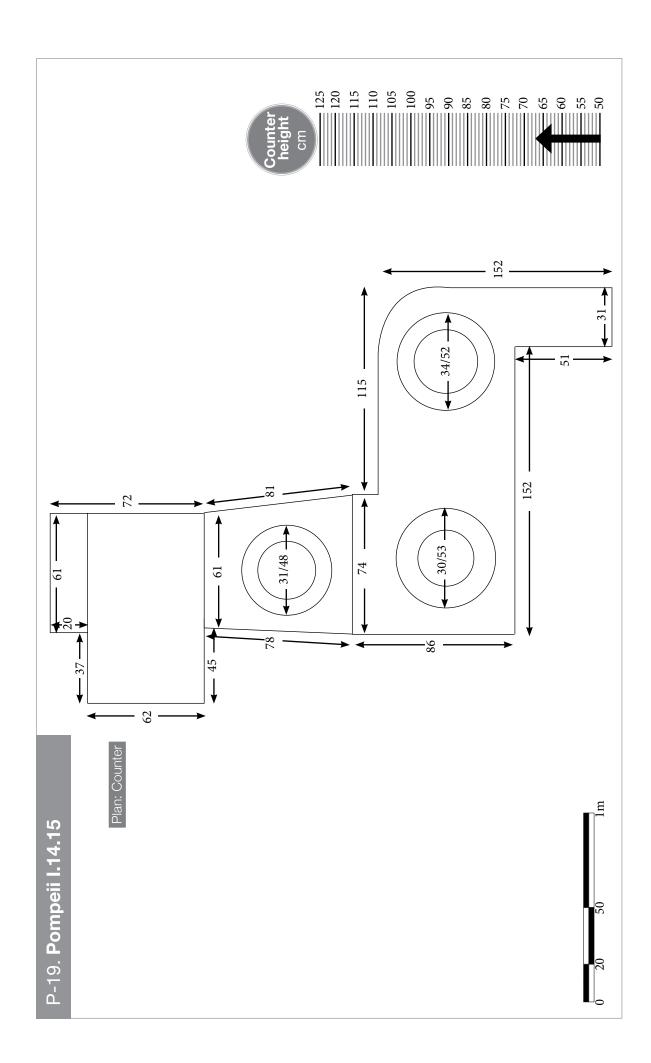
e. The remains of dolia in the counter.

d. View from inside the bar.





f. Painted wall adjacent to counter.



P-19. Pompeii I.14.15



Bibliography

Trollius, Gebäudeverzeichnis, 72-73. Ellis, "The Pompeian Bar," 289-291. DeFelice, Roman Hospitality, 209. Eschebach and Müller-



a. Façade of bar.





b. The L-shaped counter with lararium behind.



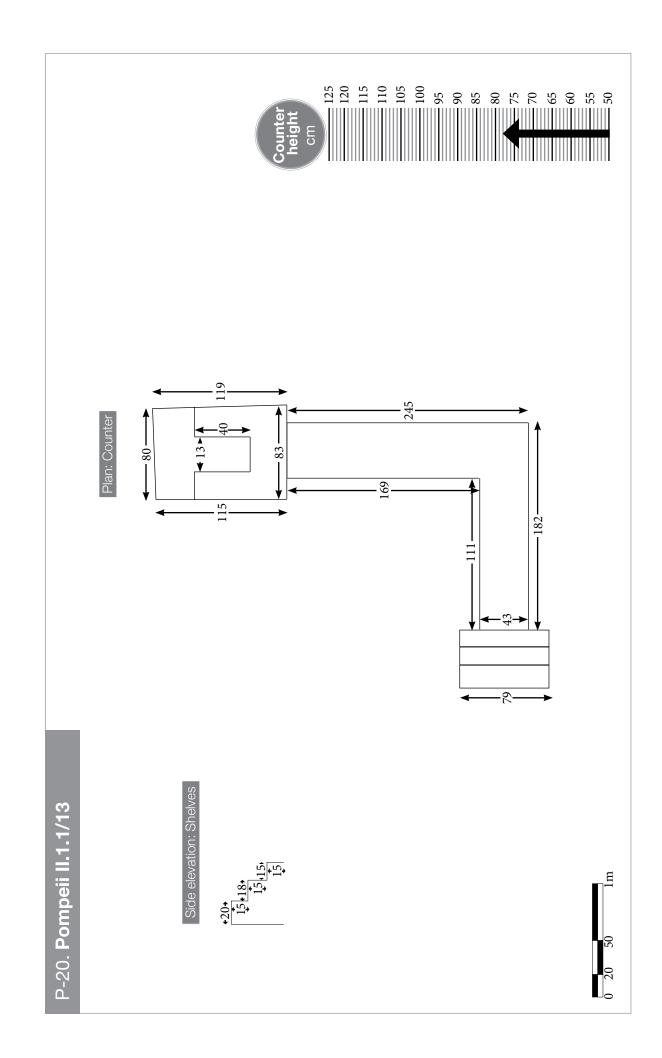
e. View into the rear room located directly behind the counter.

d. The counter with attached hearth.



f. View of the back of the bar room, towards rear rooms.

PPM II, 947-53.



P-20. Pompeii II.1.1/13



Bibliography

Ellis, "The Pompeian Bar," 297-299. Boyce, "Corpus of the Lararia," 30, DeFelice, Roman Hospitality, 213no. 61; and 110, no. 5 (as II.4.1). 214.

Trollius, Gebäudeverzeichnis, 85. Eschebach and MüllerFröhlich, *Lararien*, 32, 264-265 (L 38), 312 (F 14, 15). Jashemski, Gardens of Pompeii, Vol. 2, Appendix, 75, no. 124. PPM I, 208.

Ruddell, "The Inn, Restaurant and Tavern Business," 80, no. 35.



a. Façade of bar.





d. The counter attached to the counter.

counter.

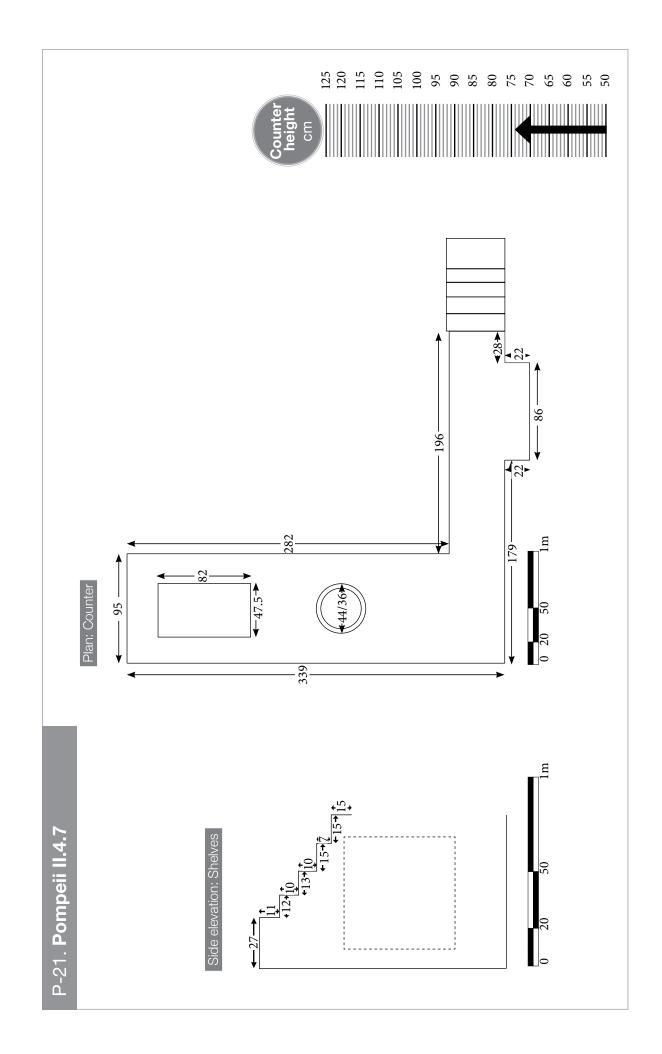


c. Inner counter arm with painted decoration.



f. View from the bar room towards the rear of the establishment.





P-21. Pompeii II.4.7



Bibliography

Ellis, "The Pompeian Bar," 308-310. Ruddell, "The Inn, Restaurant and DeFelice, Roman Hospitality, 219. Trollius, Gebäudeverzeichnis, 93. Tavern Business," 82, no. 41. Eschebach and Müller-



a. Façade of bar.





b. Interior view of working area.

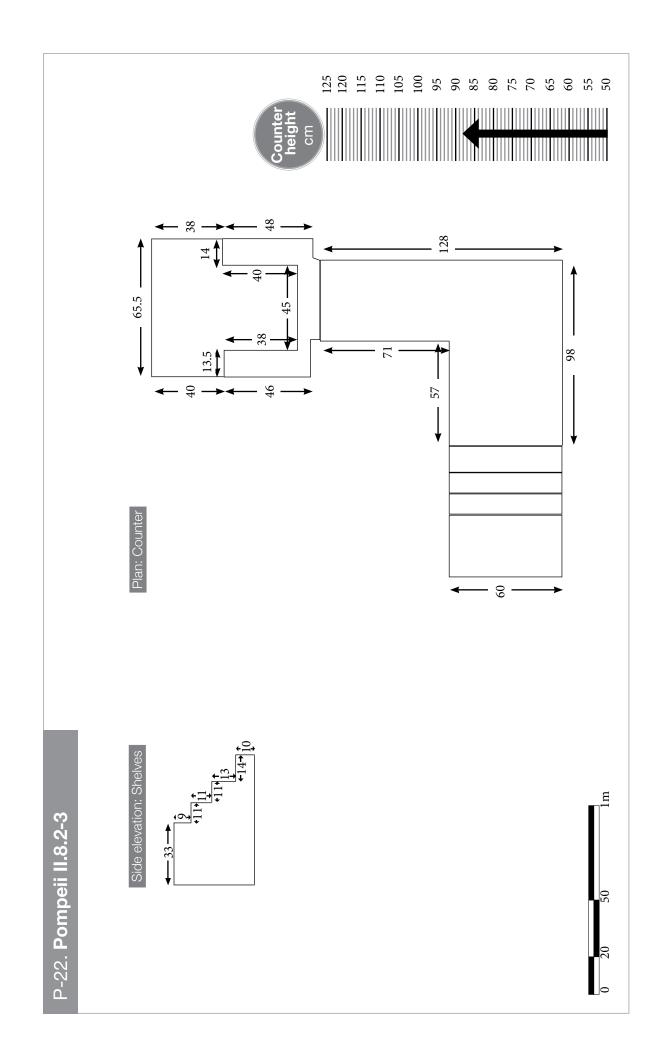
c. Remains of painted wall decoration and window into II.4.6.



f. View into the kitchen with hearth.



d. View towards dining room (left) and rear room (right).



P-22. Pompeii II.8.2-3



Bibliography

Ellis, "The Pompeian Bar," 312-313. DeFelice, Roman Hospitality, 219-

Eschebach and Müller-

Frollius, Gebäudeverzeichnis, 98. lashemski, Gardens of Pompeii, Vol.1, 177-178. Jashemski, Gardens of Pompeii, Vol. Gassner, Die Kaufläden in Pompeii, 2, Appendix, 92, no. 150.

Orr 1972, 172, no. 65. PPM III, 316-9.



a. Façade of bar.



b. Interior of small bar room with L-shaped counter.



c. Stepped shelves attached to counter with storage space beneath.

d. Interior of the hearth attached to the

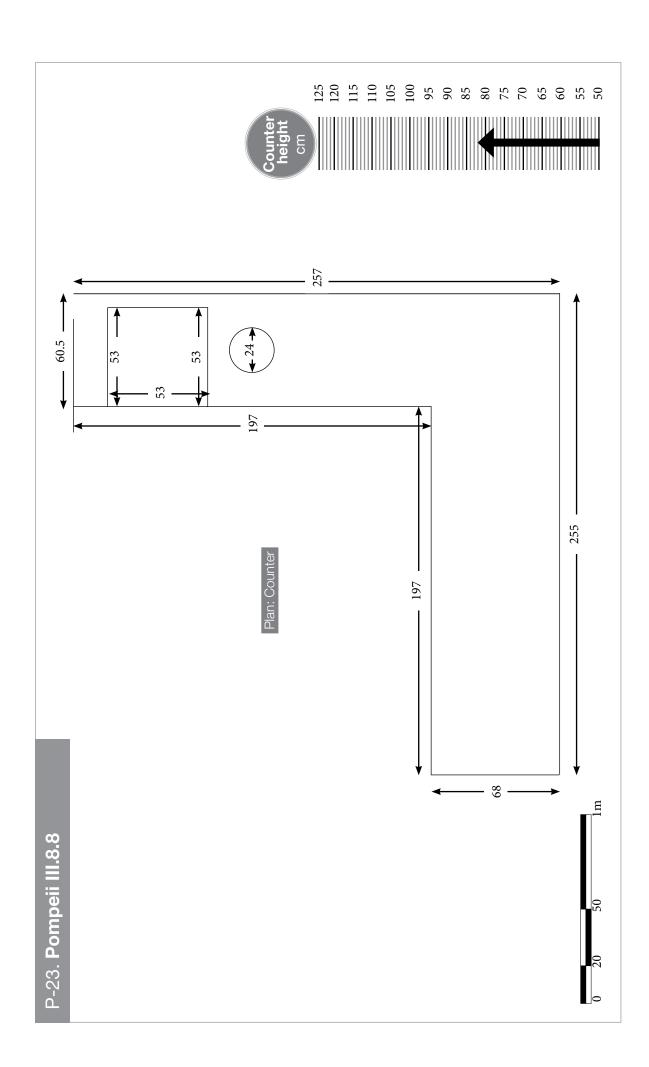
counter.



e. Remains of painted wall decoration on the back wall of the bar room.



f. The triclinium in the garden.



P-23. Pompeii III.8.8



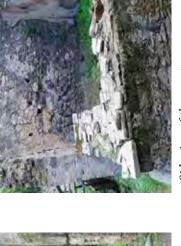
Bibliography

Ellis, "The Pompeian Bar," 319-321. Trollius, Gebäudeverzeichnis, 111-Eschebach and Müller-



a. Façade of bar.





c. Side view of the counter.

b. The L-shaped counter.



f. Remains of wall decoration on the back wall of the bar room.



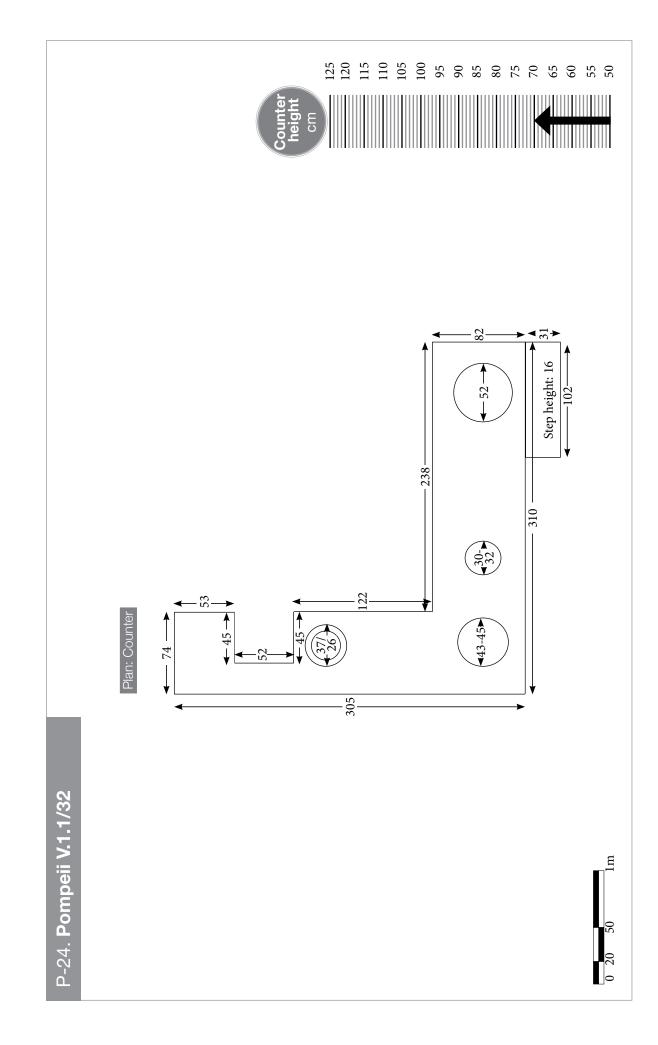
d. Interior view of working area.



e. The hearth attached to the counter.

Ruddell, "The Inn, Restaurant and

Tavern Business," 120, no. 142.



P-24. Pompeii V.1.1/32



Bibliography

Ellis, "The Pompeian Bar," 324-326. Ruddell, "The Inn, Restaurant and DeFelice, Roman Hospitality, 227. Trollius, Gebäudeverzeichnis, 122. Tavern Business," 83, no. 44. Fiorelli, Descrizione, 419. Eschebach and Müller-





a. Façade of bar, with two sets of stepping stones.



b. Façade of bar.

c. Counter top with marble decoration

and embedded dolia.

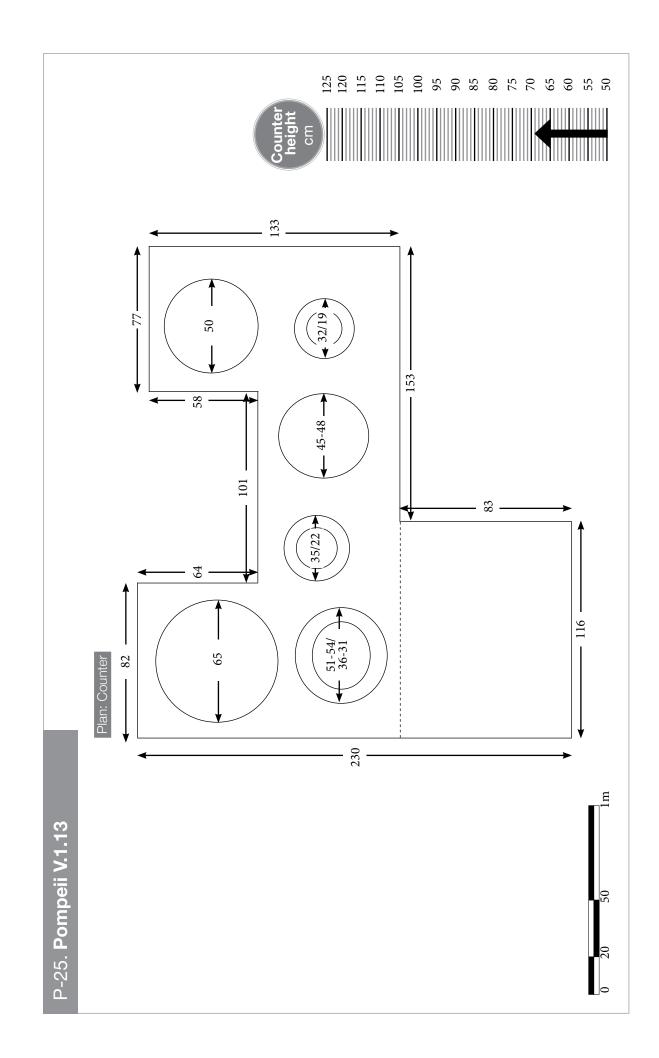


e. The hearth attached to the counter.

d. Front of the L-shaped counter with



f. View from one of the rear rooms looking into another.



P-25. Pompeii V.1.13



Bibliography

Boyce, "Corpus of the Lararia," 32, no. 73. Ellis, "The Pompeian Bar," 326-328. DeFelice, Roman Hospitality, 227-

228.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 124. Packer, "Inns at Pompeii," 37-43, figs 28-31.

ugs 20-31. PPM II, 9-10. Ruddell, "The Inn, Restaurant and Tavern Business," 83, no. 45.



a. Façade of bar.



b. The U-shaped counter with embedded dolia.

c. Interior view of working area.



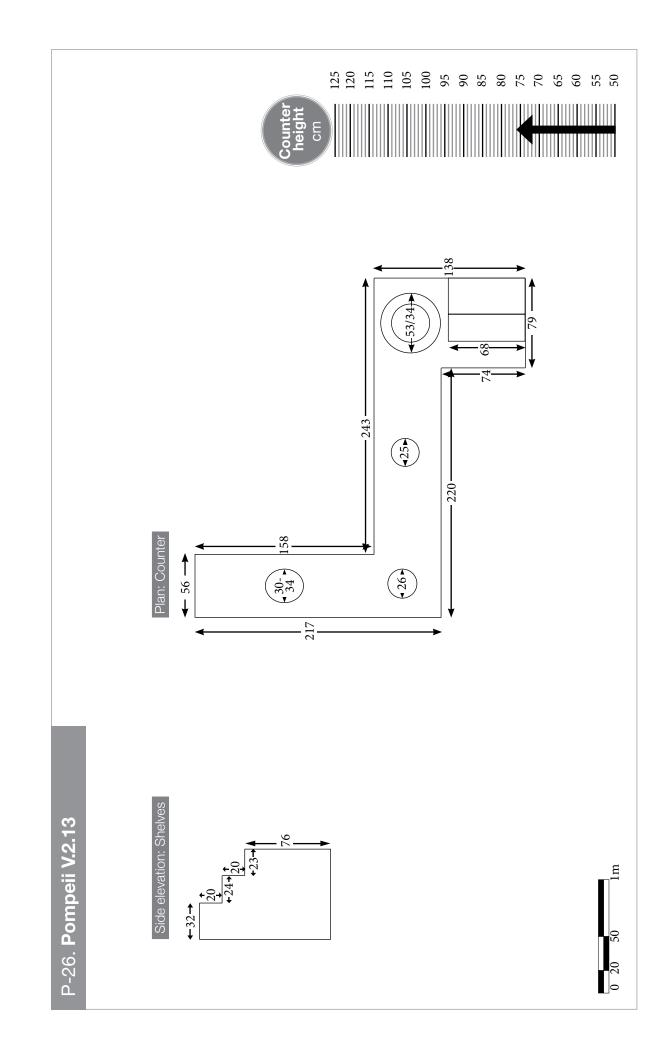
f. Long corridor leading to rear rooms.



d. The lararium behind the counter.



e. View into the room directly behind the counter.



P-26. Pompeii V.2.13



Bibliography

Boyce, "Corpus of the Lararia," 34, no. 92.

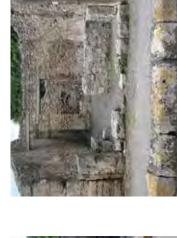
Ellis, "The Pompeian Bar," 330-332. DeFelice, Roman Hospitality, 231. Eschebach and Müller-

a. Façade of bar.

Frollius, Gebäudeverzeichnis, 132-

Packer, "Inns at Pompeii," 32-33,

Ruddell, "The Inn, Restaurant and Tavern Business," 85, no. 48.



b. Façade of bar.



e. View into the room directly behind the counter.

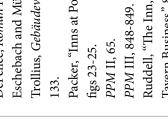
d. Interior view of the bar.

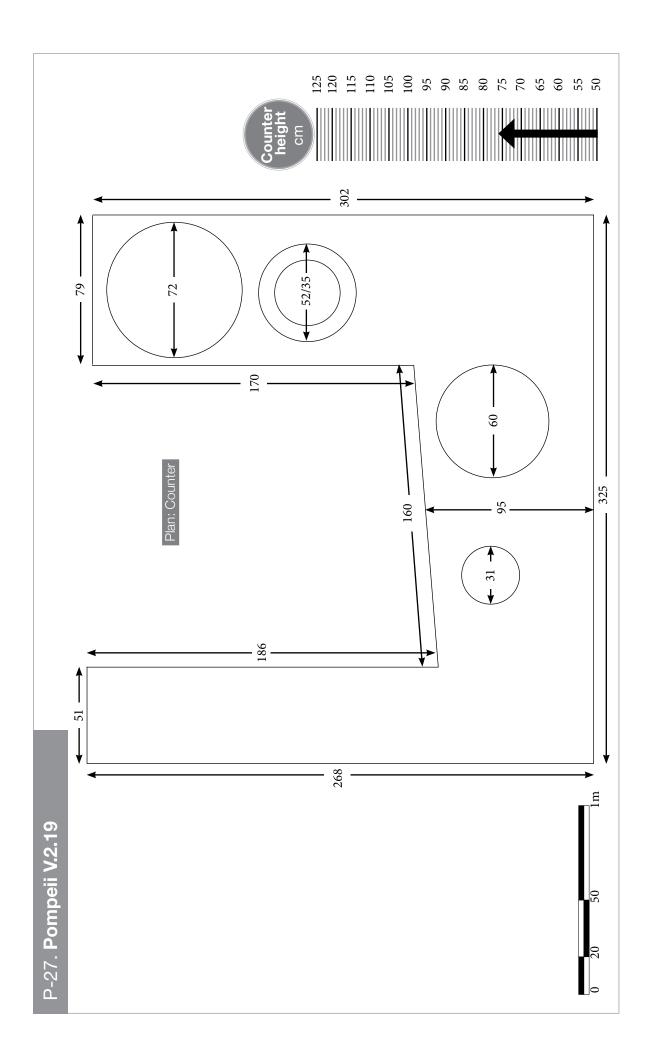


c. The L-shaped counter with dolia and stepped shelves built out to the front.



f. The kitchen and latrine area.





P-27. Pompeii V.2.19



Bibliography

Ellis, "The Pompeian Bar," 333-335. Boyce, "Corpus of the Lararia," 35, DeFelice, Roman Hospitality, 231no. 98.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 133-

Jashemski, Gardens of Pompeii, Vol. 2, Appendix, 112, no. 175

PPM II, 68-69.

PPM III, 870-4.

Ruddell, "The Inn, Restaurant and Tavern Business," 85, no. 49.



a. Façade of bar.





e. The remains of painted wall decoration at the front of the bar room.

d. The U-shaped counter with

embedded dolia.

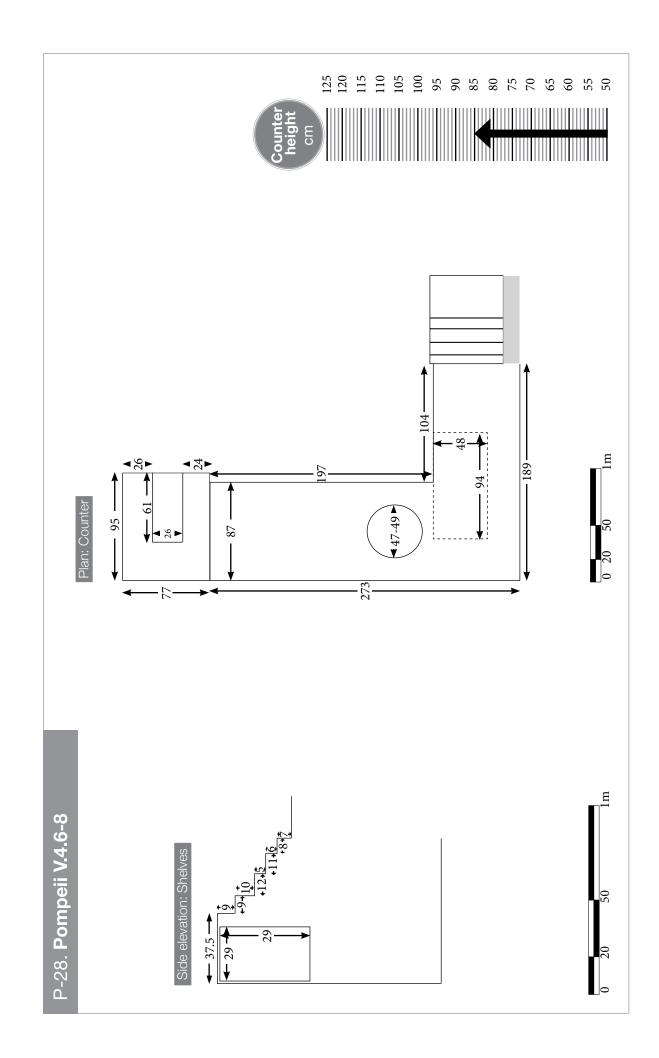


c. Interior view of the bar room.

b. The front of the counter with the remains of painted decoration.



f. Site of the hearth.



P-28. Pompeii V.4.6-8



Bibliography

Ellis, "The Pompeian Bar," 337-339. Boyce, "Corpus of the Lararia," 40, DeFelice, Roman Hospitality, 232no. 121. 233.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 142. PPM II, 97-98.

PPM III, 1055-1058.

Ruddell, "The Inn, Restaurant and Tavern Business," 85-86, no. 50.



a. Façade of bar.





e. The separate hearth at the front of the bar.

Counter with storage and hearth. d. Interior view of working area.



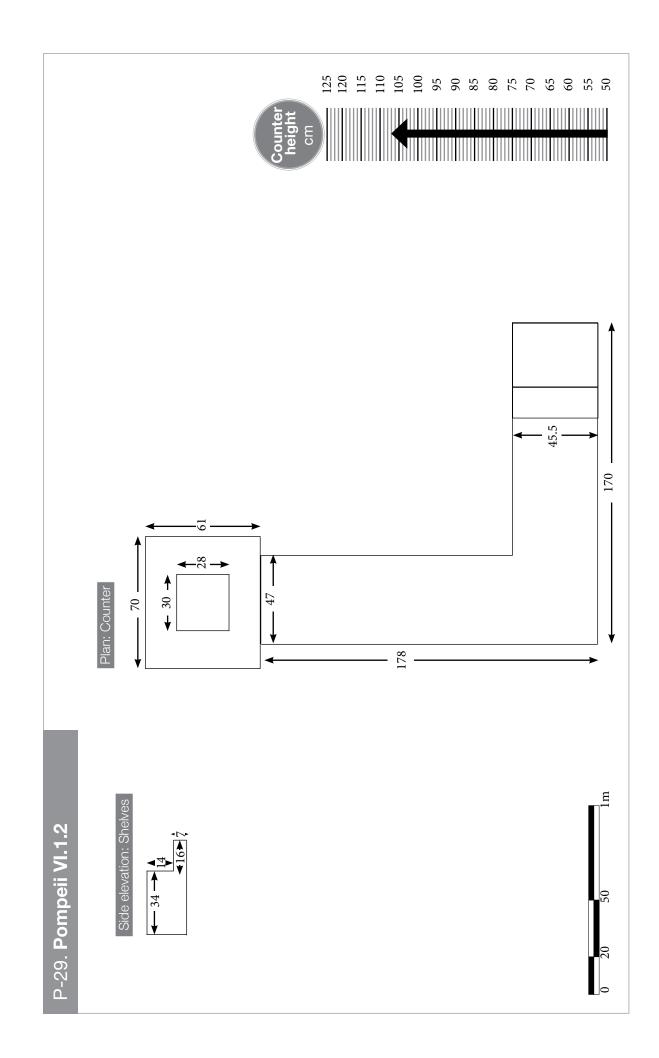
c. Side view of the counter with marble cladding, dolium and stepped shelves.

b. The L-shaped counter with decorated

front face.



f. View into the bar room from small rear room.



P-29. Pompeii VI.1.2



Bibliography

Ellis, "The Pompeian Bar," 342-343. DeFelice, Roman Hospitality, 235-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 150-

151.

Fiorelli, Descrizione, 76-77. PPM II, 104. Ruddell, "The Inn, Restaurant and Tavern Business," 86, no. 52.



a. Façade of bar and Porta Ercolano.



b. Façade of bar, with bench.

c. The L-shaped counter with stepped

shelves.



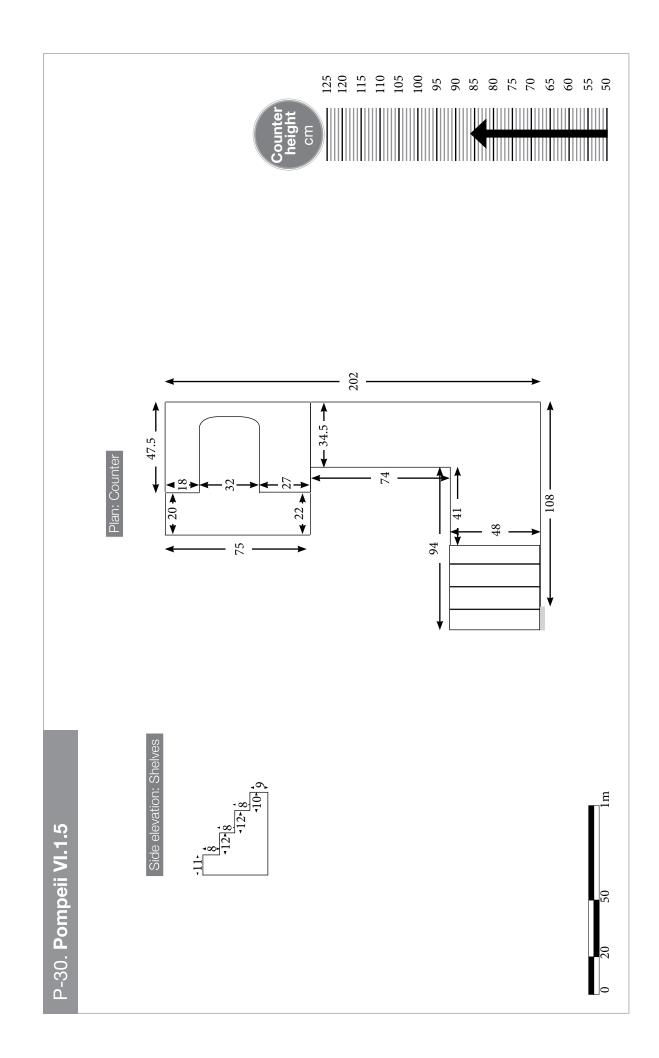
f. The stepped shelves.



d. Side view of the counter with hearth.



e. The attached hearth at the end of the counter arm.



P-30. Pompeii VI.1.5



Bibliography

Ellis, "The Pompeian Bar," 344-345. DeFelice, Roman Hospitality, 236. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 151.

Fiorelli, Descrizione, 77.

PPM IV, 3-4;

Ruddell, "The Inn, Restaurant and Tavern Business," 87, no. 53.



a. Façade of bar.



b. Façade of bar.

c. The L-shaped counter.



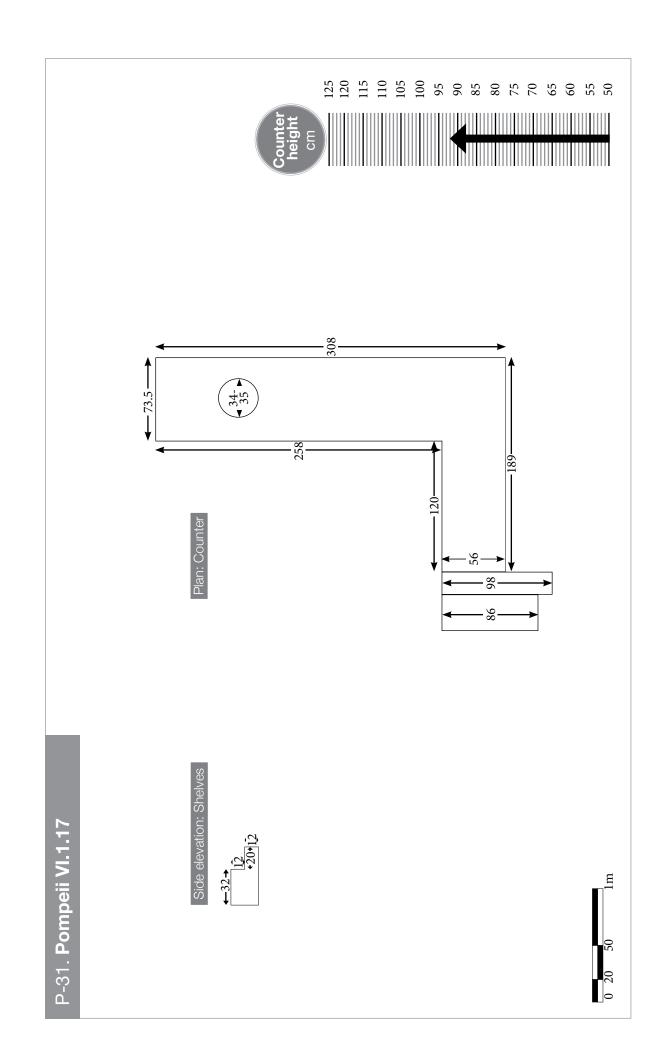
f. View towards rear rooms.



d. Interior view of working area.



room with the food and drink outlet at VI.17.4 opposite. e. View from the interior of the bar



P-31. Pompeii VI.1.17



Bibliography

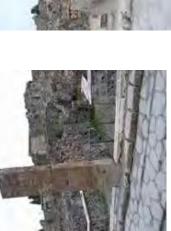
Ellis, "The Pompeian Bar," 345-347. DeFelice, Roman Hospitality, 236. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 154. Fiorelli, Descrizione, 81.

Ruddell, "The Inn, Restaurant and Tavern Business," 87, no. 54.



a. Façade of bar.





b. Façade of bar.

c. The L-shaped counter with marble decoration work surface.



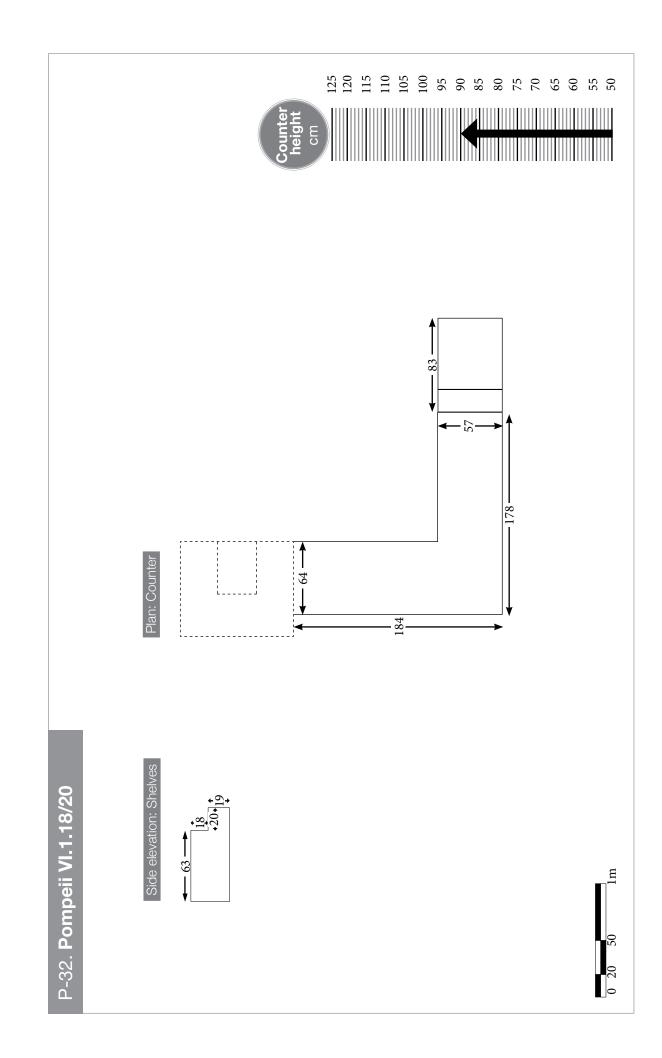
f. The bar's threshold and narrow path in front.



e. View of the bar room from rear room.

d. Interior view of working area.





P-32. Pompeii VI.1.18/20



Bibliography

Ellis, "The Pompeian Bar," 347-349. Trollius, Gebäudeverzeichnis, 154. DeFelice, Roman Hospitality, 237. Eschebach and Müller-

Ruddell, "The Inn, Restaurant and Tavern Business," 87, no. 55. Fiorelli, Descrizione, 82.



a. Façade of bar.





c. Side view of the L-shaped counter.

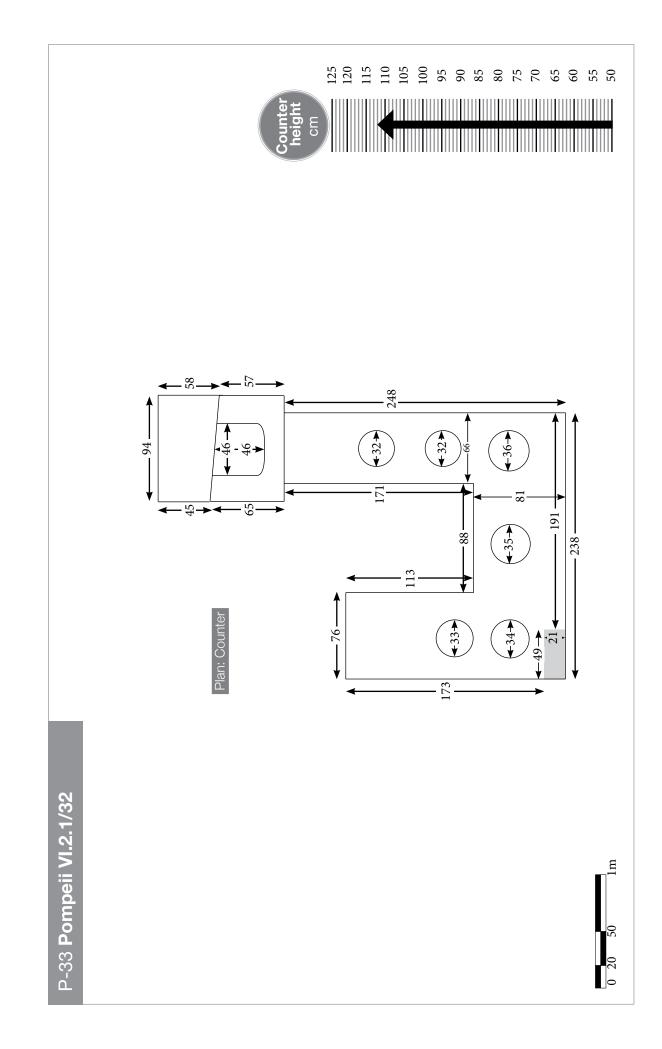


e. The counter with the remains of the attached hearth.

d. The marble topped counter and stepped shelves.



f. View of the bar from the rear of the establishment.



P-33 Pompeii VI.2.1/32



Bibliography

Boyce, "Corpus of the Lararia," 43-44, no. 138. Ellis, "The Pompeian Bar," 349-351.

DeFelice, Roman Hospitality, 237. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 155. PPM II, 115-116.

PPM IV, 85-6;.

Ruddell, "The Inn, Restaurant and Tavern Business," 87, no. 56.



a. Façade of bar.



b. Façade of bar.

c. Façade of bar with stepping stone.



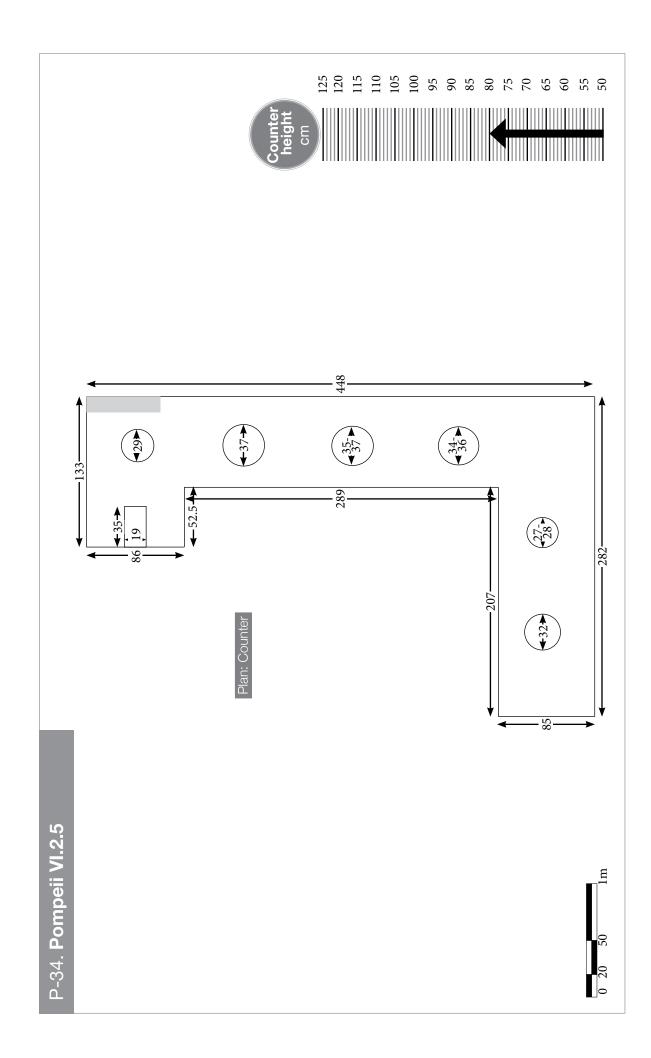
f. The hearth attached the counter.



d. Counter top with marble decoration and embedded dolia.



e. The U-shaped counter with attached hearth.



P-34. Pompeii VI.2.5



Bibliography

Ellis, "The Pompeian Bar," 351-353. DeFelice, Roman Hospitality, 237-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 165. Fiorelli, Descrizione, 83-85.

Jashemski, Gardens of Pompeii,

Jashemski, Gardens of Pompeii, Vol. Vol.1, 168.

2, Appendix, 121-122, nos. 203-204; 340, no. 41.

PPM IV, 148. PPM II, 123.

Ruddell, "The Inn, Restaurant and Tavern Business," 88, no. 57.



a. Façade of bar.





c. View from the counter from the

entrance at VI.2.4.



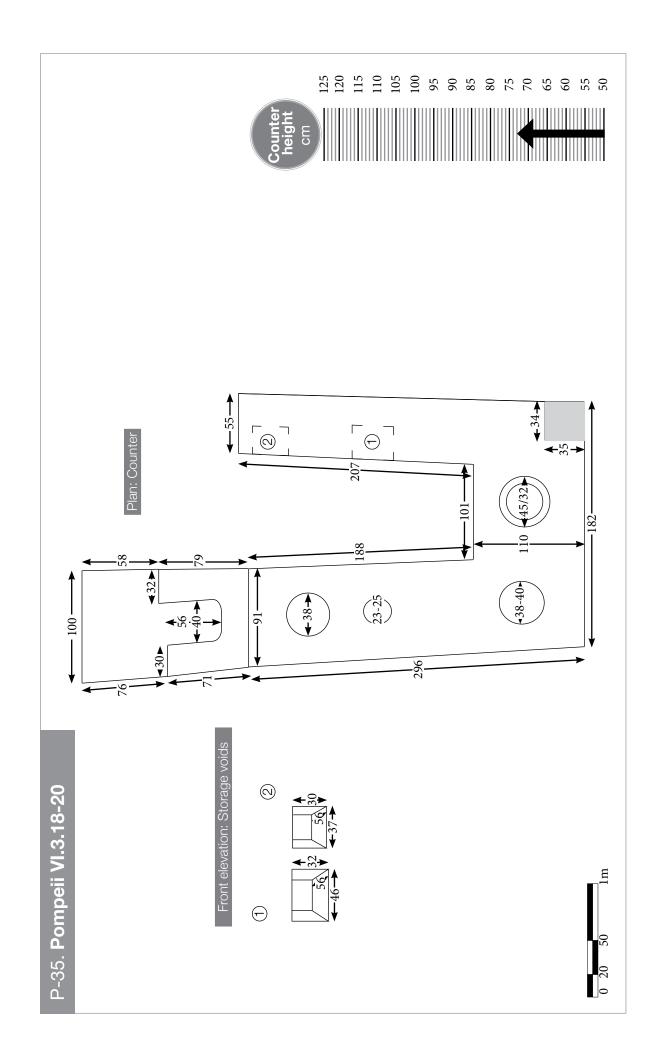
e. The structure in the centre of the bar

d. The attached hearth.



f. The structure in the centre of the bar room.





P-35. Pompeii VI.3.18-20



Bibliography

Ellis, "The Pompeian Bar," 353-355. Boyce, "Corpus of the Lararia," 45, DeFelice, Roman Hospitality, 240. no. 147.

Trollius, Gebäudeverzeichnis, 165. Eschebach and Müller-

Fiorelli, Descrizione, 94.

Ruddell, "The Inn, Restaurant and Tavern Business," 89, no. 60.



a. Façade of bar with fountain in front.



b. Side view, showing the two wide entrances.

c. Façade of bar.

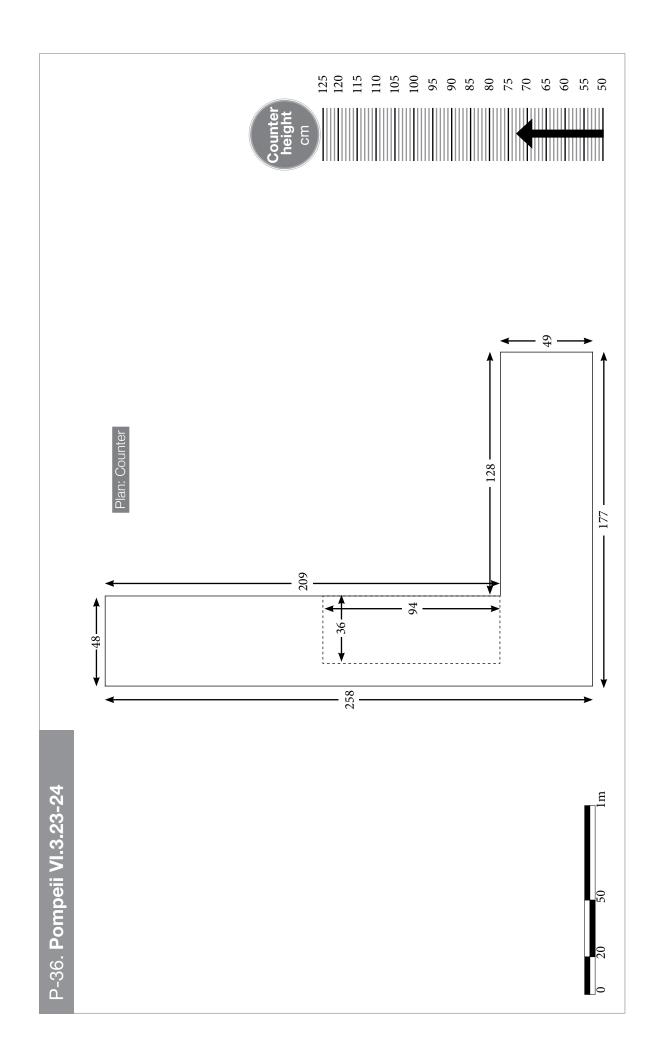


f. Lararium in left-hand side rear room.



d. Interior view of working area.





P-36. Pompeii VI.3.23-24



Bibliography

Ellis, "The Pompeian Bar," 355-357. Boyce, "Corpus of the Lararia," 45, DeFelice, Roman Hospitality, 240. Eschebach and Müllerno. 148

Trollius, Gebäudeverzeichnis, 166. Fiorelli, Descrizione, 94.

Ruddell, "The Inn, Restaurant and Tavern Business," 89-90, no. 61.



a. Façade of bar.





b. Façade of bar.

c. The L-shaped counter.



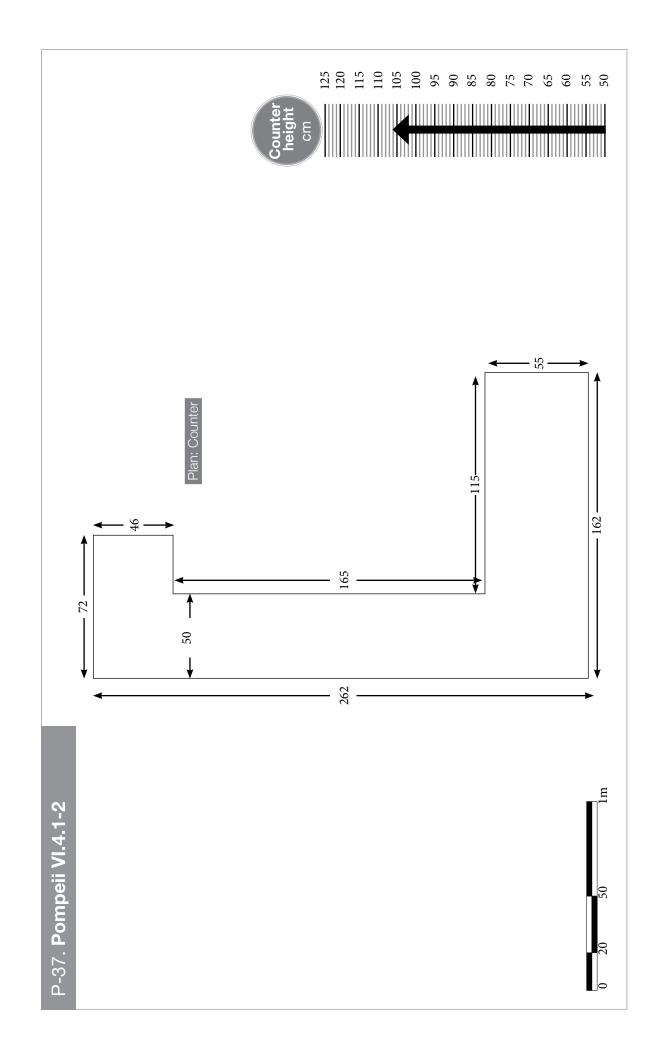
f. Lararium behind the counter.



d. Interior view of working area.



e. View towards the rear room.



P-37. Pompeii VI.4.1-2



Bibliography

Ellis, "The Pompeian Bar," 358-359. DeFelice, Roman Hospitality, 241. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 166-167.

Fiorelli, Descrizione, 95.

Ruddell, "The Inn, Restaurant and Tavern Business," 90, no. 62.



a. Façade of bar.

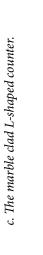


b. View into bar room from VI.4.2.





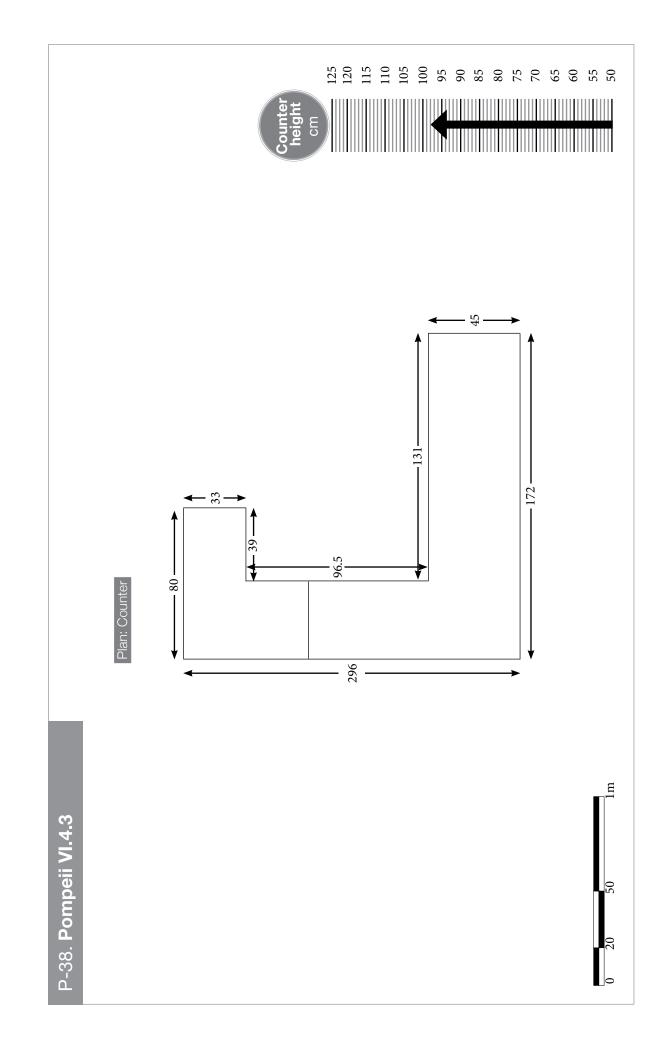
d. Interior view of working area.





f. View onto street.

e. View into rear of property.

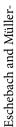


P-38. Pompeii VI.4.3



Bibliography

Ellis, "The Pompeian Bar," 259-261. Boyce, "Corpus of the Lararia," 45-DeFelice, Roman Hospitality, 241-46, no. 150 242.



Fröhlich, Lararien, 275-276 (L 60). Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 167. Tavern Business," 90, no.



a. Façade of bar.



b. The marble clad L-shaped counter.

c. View towards rear room.



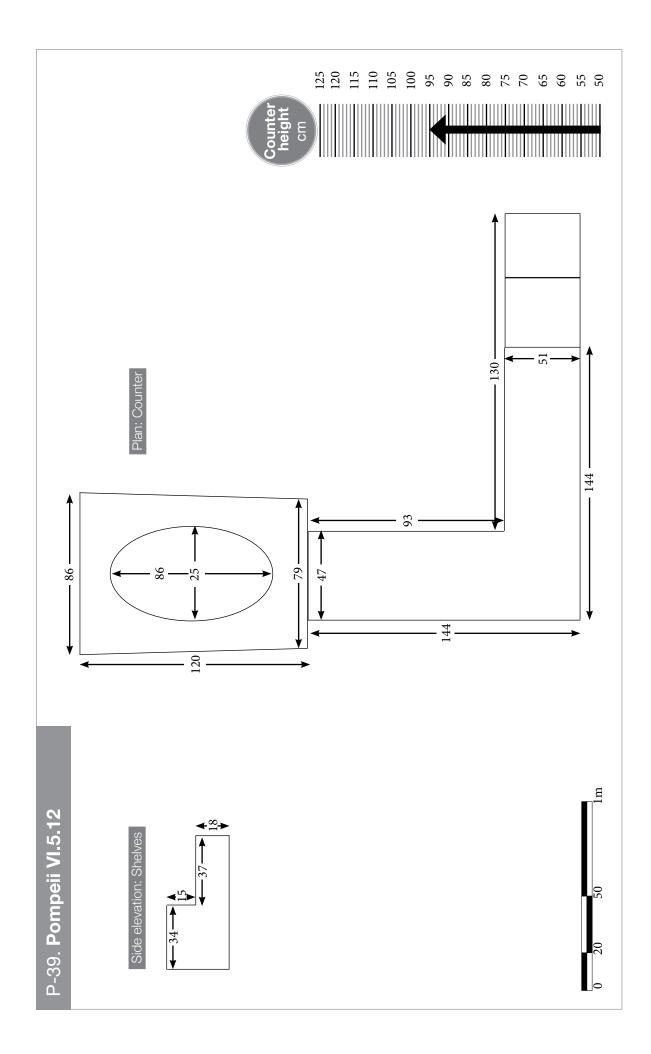
f. The adjoining property at VI.4.4.



d. Interior view of working area and lararium.



e. The lararium opposite the counter.



P-39. Pompeii VI.5.12



Bibliography

Ellis, "The Pompeian Bar," 362-364. DeFelice, Roman Hospitality, 242-243.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 171-

Fiorelli, Descrizione, 99.

Ruddell, "The Inn, Restaurant and Tavern Business," 91, no. 65.



c. The stepped shelves.

b. The L-shaped counter with stepped shelves.



f. Remains of painted wall decoration.



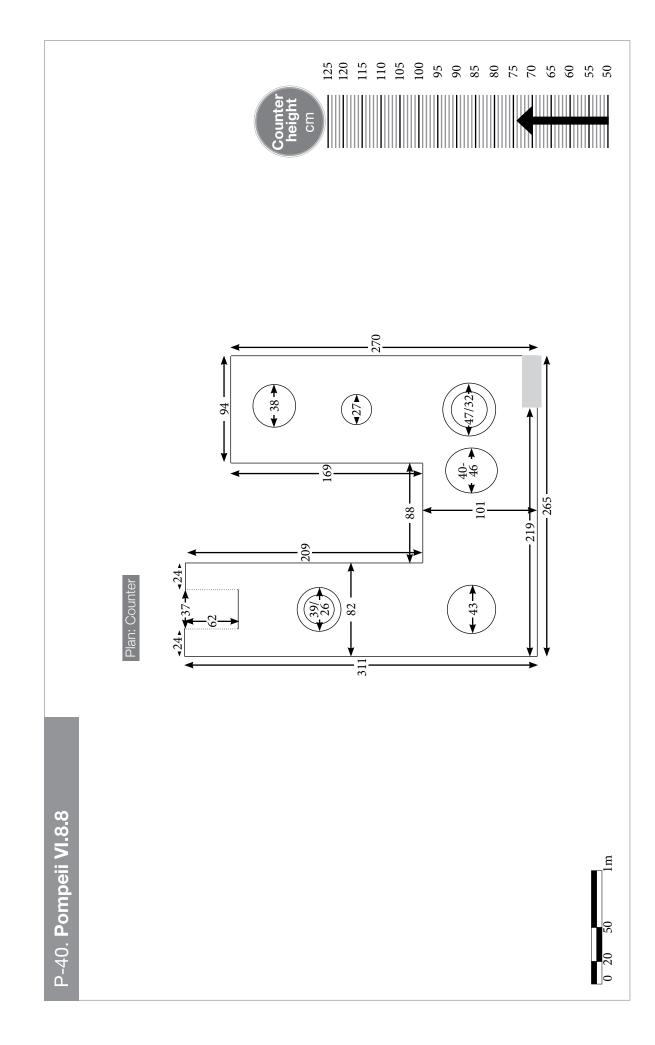
a. Façade of bar.



d. Interior view of working area.



e. The attached hearth.



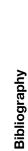
P-40. Pompeii VI.8.8



no. 169.

Eschebach and Müller-

Ruddell, "The Inn, Restaurant and PPM II, 174.



Ellis, "The Pompeian Bar," 364-366. Boyce, "Corpus of the Lararia," 49, DeFelice, Roman Hospitality, 244-



Fiorelli, Descrizione, 120-121.

Tavern Business," 91, no.



a. Façade of bar.

b. Façade of bar.

c. The marble clad U-shaped counter.

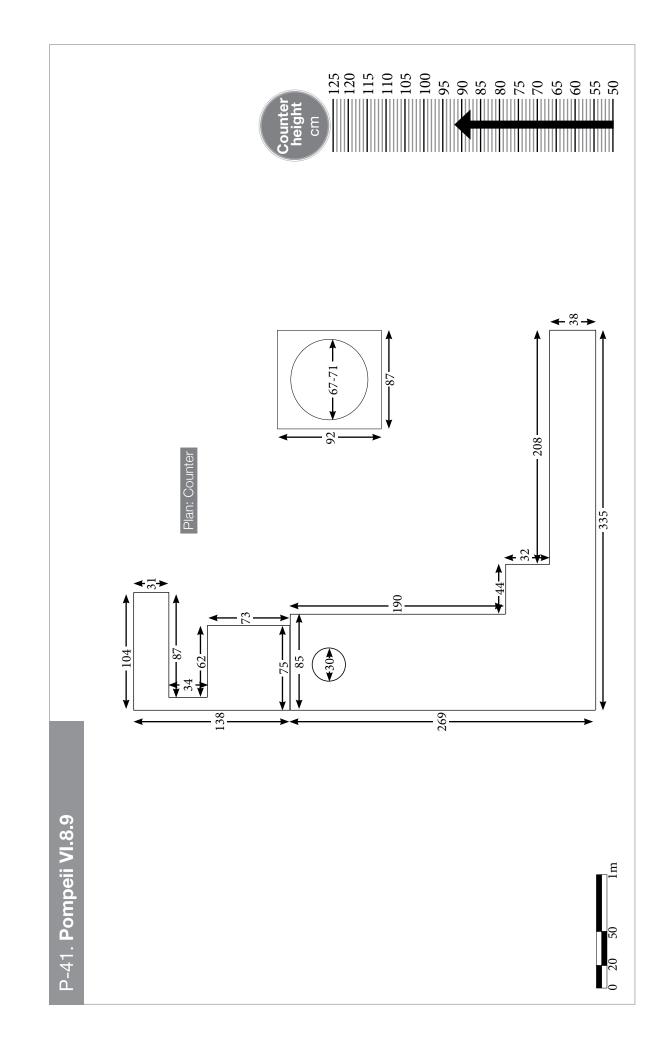


e. The additionally counter space.

d. The attached hearth.



f. The latrine at the back of the property.



P-41. Pompeii VI.8.9



Bibliography

Ellis, "The Pompeian Bar," 366-368. Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 184. DeFelice, Roman Hospitality, 245. Tavern Business," 91-92, no. Fiorelli, Descrizione, 121. Eschebach and Müller-



a. Façade of bar.





b. The marble clad L-shaped counter.

c. The counter with varying depths.



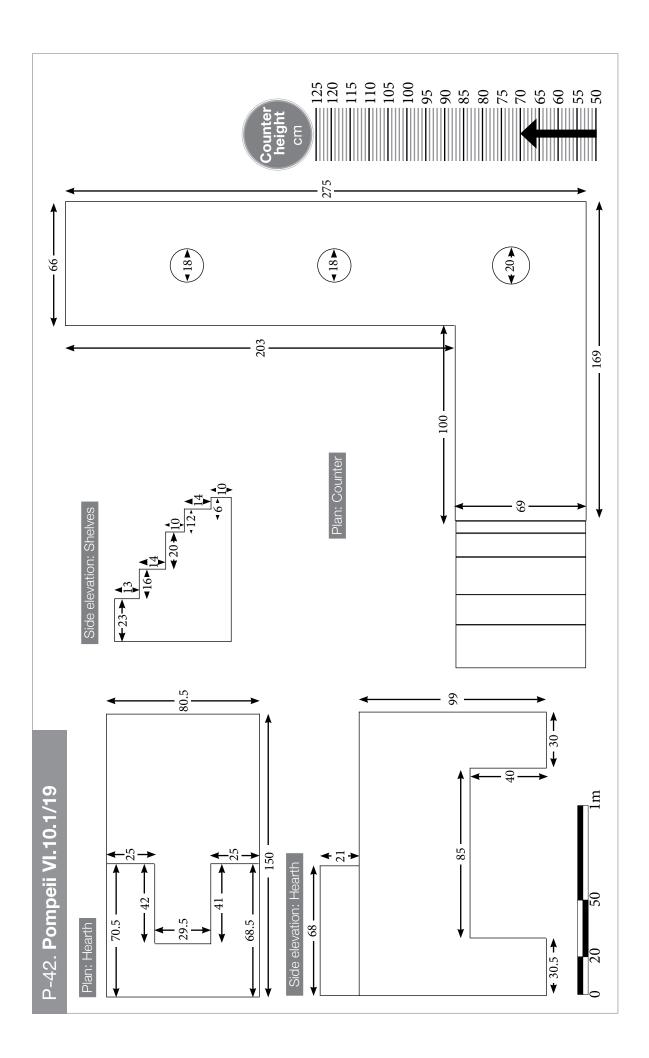
f. View of the bar from the rear of the establishment.



d. Interior view of working area.



e. The attached hearth.



P-42. Pompeii VI.10.1/19



Bibliography

Ellis, "The Pompeian Bar," 368-370. Boyce, "Corpus of the Lararia," 49, DeFelice, Roman Hospitality, 247-



Trollius, Gebäudeverzeichnis, 192. Fröhlich, Lararien, 214-222. Fiorelli, Descrizione, 139.

PPM II, 227-229.

PPM IV, 1005-1028.

Ruddell, "The Inn, Restaurant and Tavern Business," 92-93, no. 69.



a. Façade of bar.



c. The stepped shelves and storage space.

b. The L-shaped counter with dolia and stepped shelves.

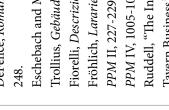


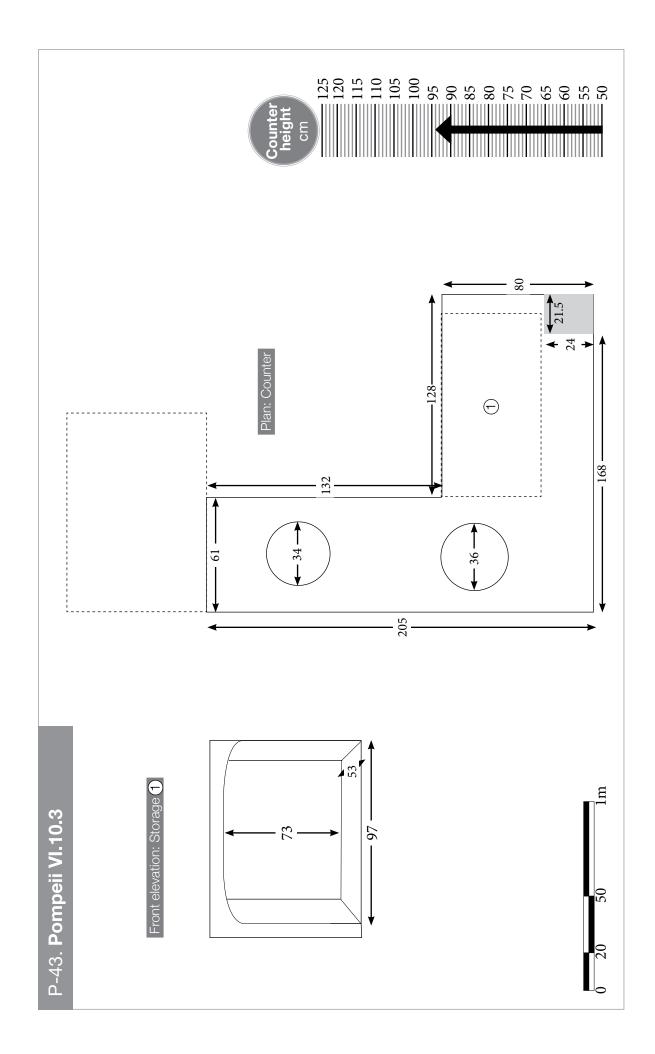
e. The hearth at the front of the bar.

remains of painted decoration.



f. The rear room with painted scenes.



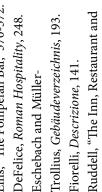


P-43. Pompeii VI.10.3



Bibliography

Ellis, "The Pompeian Bar," 370-372. Eschebach and Müller-



Tavern Business," 93, no. 70.



a. Façade of bar.





b. The front of the L-shaped counter.

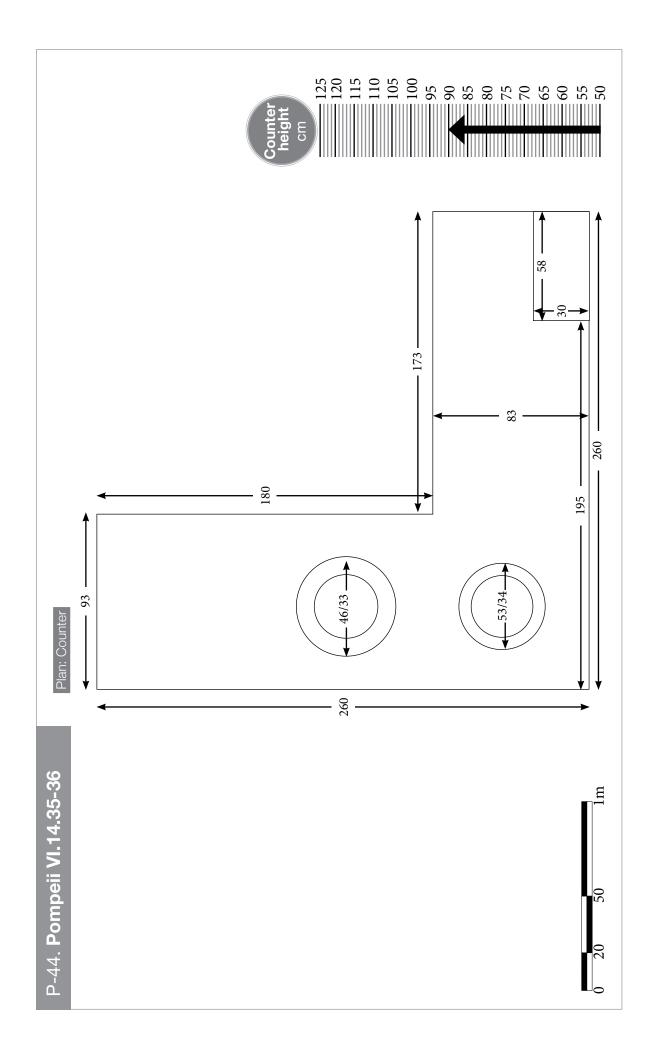


e. The remains of the attached hearth.

d. Interior view of working area. Counter with built-in storage.



f. View of the bar from the rear of the property.



P-44. Pompeii VI.14.35-36



Bibliography

Boyce, "Corpus of the Lararia," 108, Ellis, "The Pompeian Bar," 374-375.

DeFelice, Roman Hospitality, 253-

254.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 215.

Packer, "Inns at Pompeii," 33-37, Fröhlich, Lararien, 211-214.

figs 26-27.

PPM II, 291.

PPM X, 366-371.

Ruddell, "The Inn, Restaurant and Tavern Business," 94-95, no. 74.



a. Façade of bar.



b. The L-shaped counter.

remains of painted wall decoration. c. The front counter arm with the

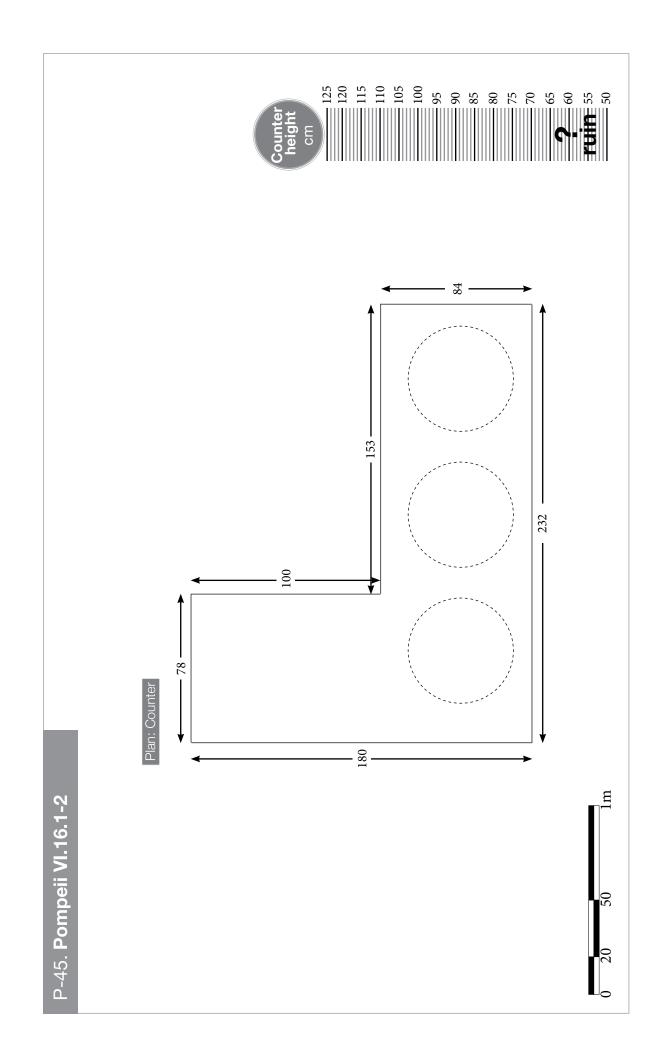


e. View of the kitchen with hearth.

d. Dolia with stamp.



f. View from rear room (with painted decoration) into the bar room.



P-45. Pompeii VI.16.1-2



Bibliography

Ellis, "The Pompeian Bar," 379-380. DeFelice, Roman Hospitality, 255-

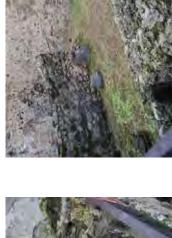
Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 224. Tavern Business," 95-96, no. 77. Eschebach and Müller-

c. The remains of painted wall decoration in front of the counter.



a. Façade of bar.

b. Façade of bar.



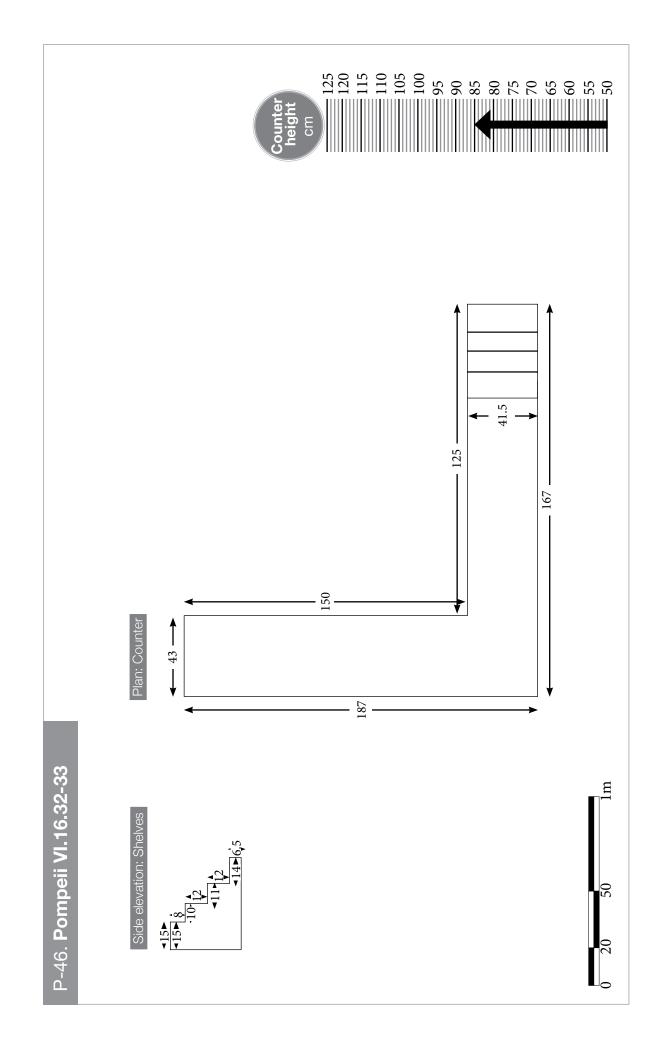
e. View towards additional rooms.



f. View towards rear room.



d. The L-shaped counter with dolia



P-46. Pompeii VI.16.32-33



Bibliography

Ellis, "The Pompeian Bar," 384-386. Trollius, Gebäudeverzeichnis, 231. DeFelice, Roman Hospitality, 257. Eschebach and Müller-

PPM II, 371-373.

PPM V, 960-973.

Ruddell, "The Inn, Restaurant and Tavern Business," 96-97, no. 80.



a. Façade of bar.

b. Façade of bar.





e. The remains of painted wall decoration.

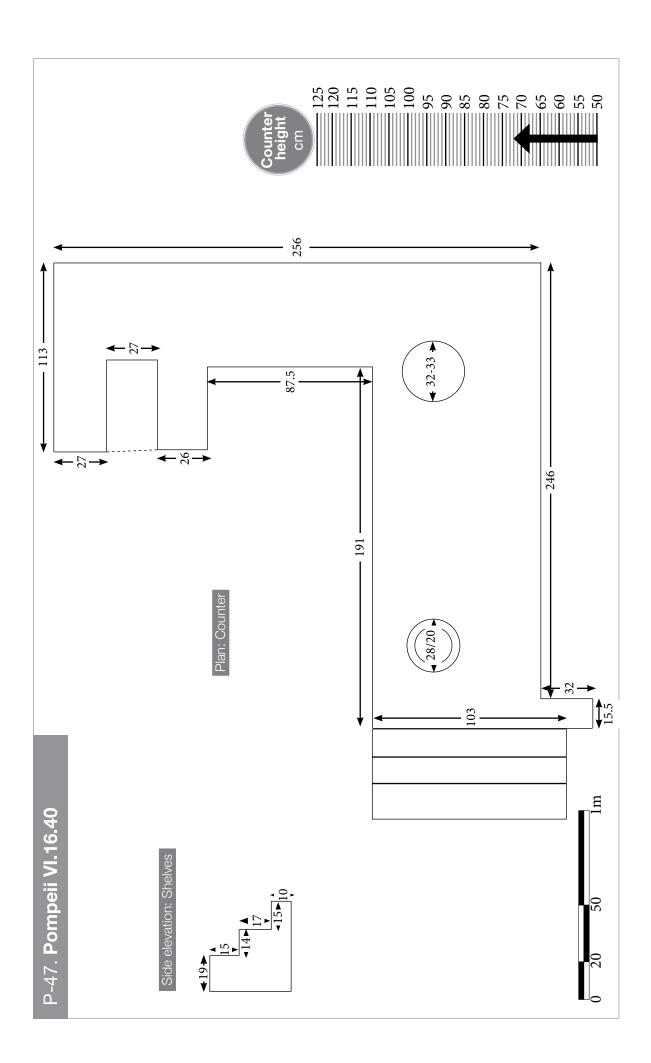
d. Interior view of working area.



remains of painted decoration and c. The L-shaped counter with the stepped shelves.



f. The hearth accessed via a door in the rear of the bar room.



P-47. Pompeii VI.16.40



Bibliography

Boyce, "Corpus of the Lararia," 59, no. 230, pl. 27,1.
Ellis, "The Pompeian Bar," 386-388.
DeFelice, Roman Hospitality, 257-

258. Eschebach and Müller-

Eschebach and Polliner-Trollius, Gebäudeverzeichnis, 232-

Fröhlich, *Lararien*, 282 (L77). *PPM* V, 996-998.

Ruddell, "The Inn, Restaurant and Tavern Business," 97, no. 81.



a. Façade of bar.



b. Façade of bar.



e. The lararium painting at the back of the property.

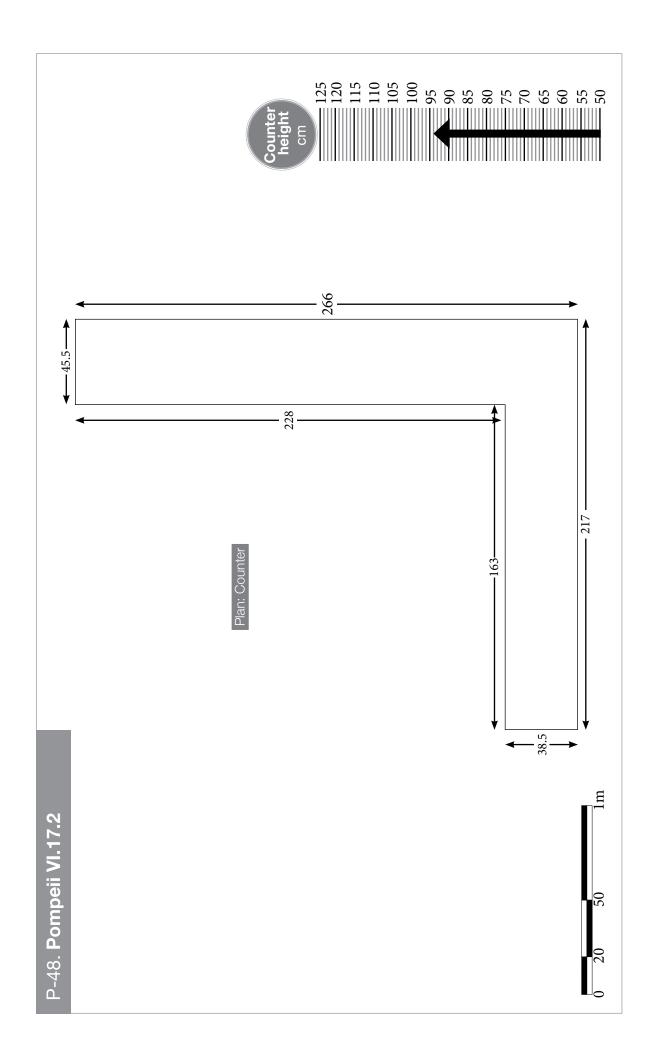
d. The attached hearth.



c. Counter top with marble decoration, stepped shelves and embedded dolia.



f. The latrine.



P-48. Pompeii VI.17.2



Bibliography

Ellis, "The Pompeian Bar," 388-390. DeFelice, Roman Hospitality, 258-

Trollius, Gebäudeverzeichnis, 233. Eschebach and Müller-

Fiorelli, Descrizione, 431.

Ruddell, "The Inn, Restaurant and Tavern Business," 97, no. 82.



a. Façade of bar.



c. Façade of bar with the L-shaped

counter.



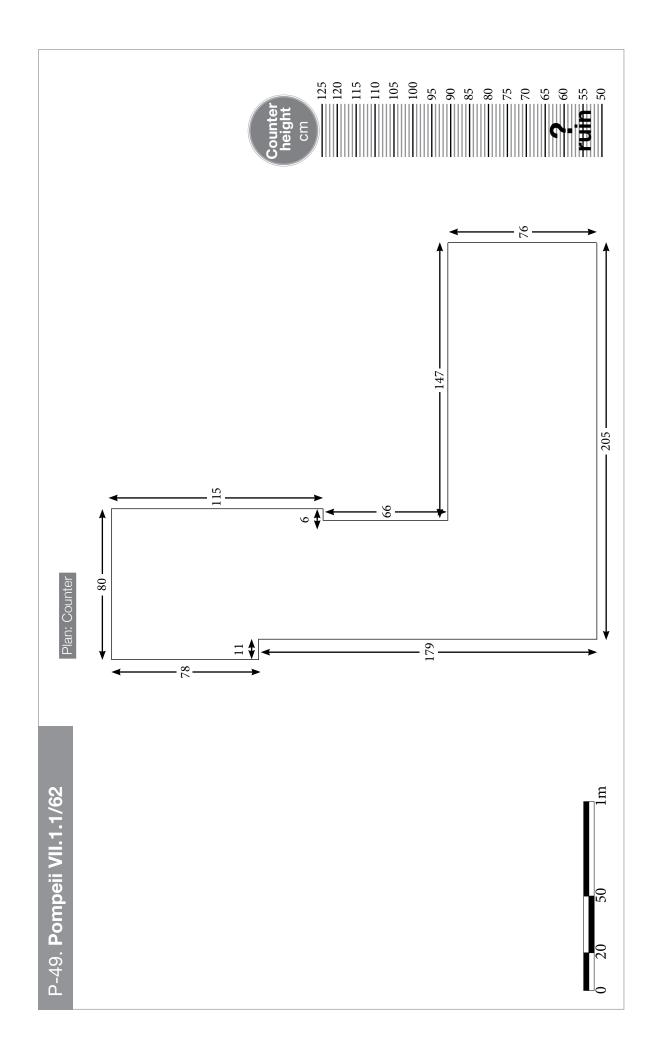
e. Counter top with marble decoration.

d. The front of the counter and threshold stones.



f. The counter top and the remains of painted wall decoration.





P-49. Pompeii VII.1.1/62



Bibliography

Ellis, "The Pompeian Bar," 395-397. DeFelice, Roman Hospitality, 260-

Trollius, Gebäudeverzeichnis, 241. Eschebach and Müller-

Fiorelli, Descrizione, 161.





a. Façade of bar, with stepping stones.

b. Façade of bar.



c. Façade of bar at VII.1.62.



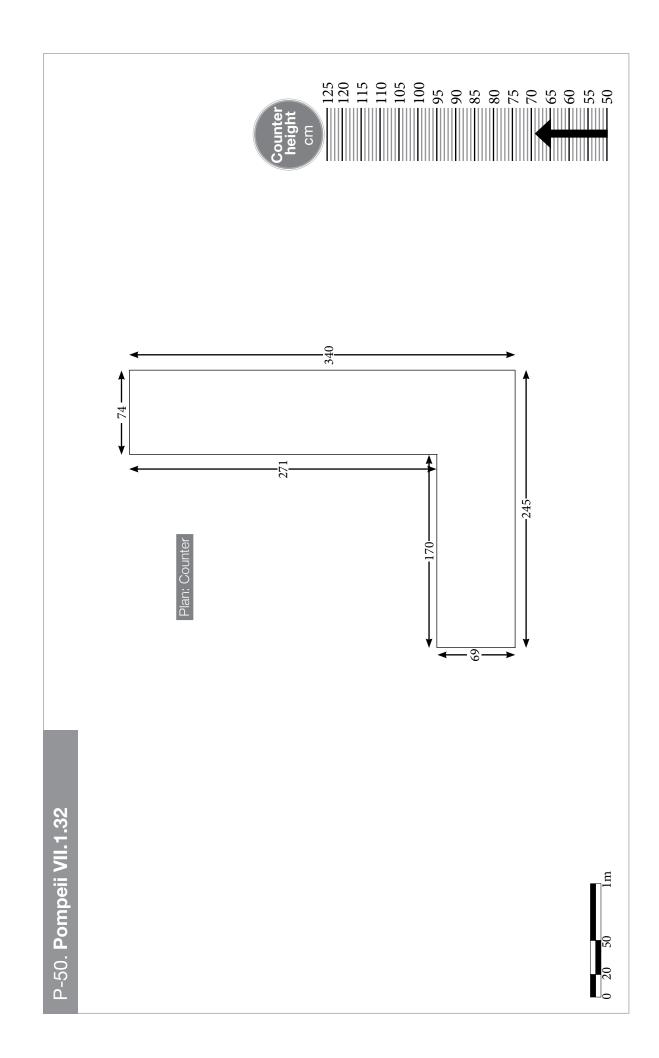
e. The side view of the counter.

d. The ruinous L-shaped counter.





f. The remains of the attached hearth.



P-50. Pompeii VII.1.32



Bibliography

Ellis, "The Pompeian Bar," 397-398. Trollius, Gebäudeverzeichnis, 249. Fiorelli, Descrizione, 171. Eschebach and Müller-PPM III, 41.



a. Façade of bar.

c. The L-shaped counter.

b. Façade of bar with fountain.

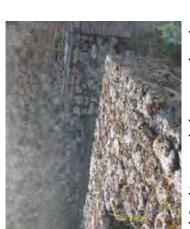




e. View towards the two rear rooms.

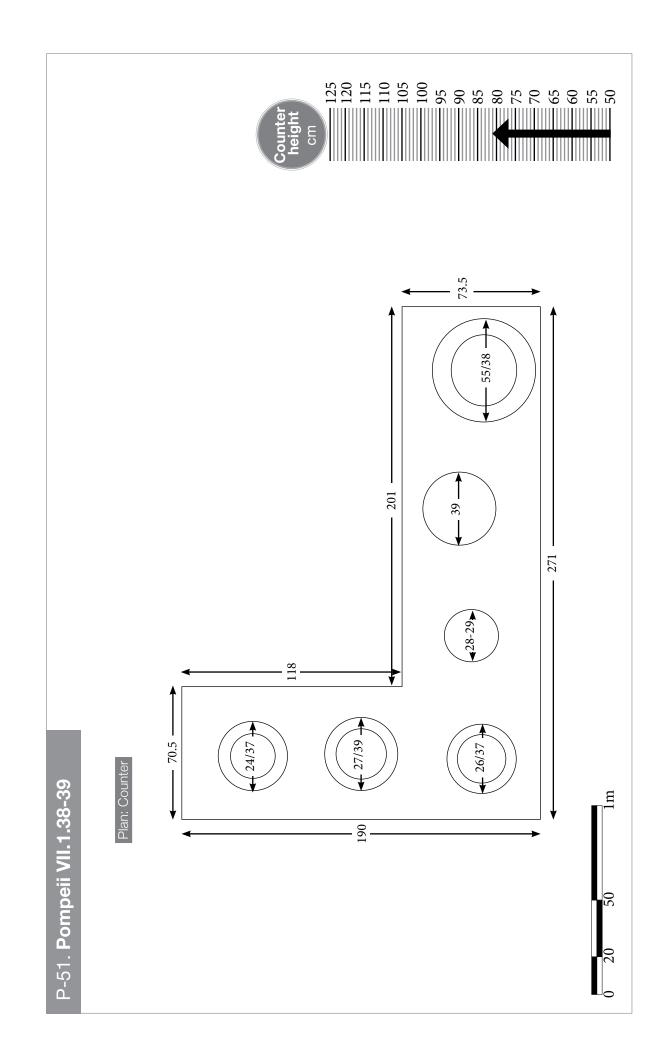


f. The fountain in front of the bar, with a relief of Venus.



d. Looking towards the separate hearth, right.

PPM VI, 360-364.



P-51. Pompeii VII.1.38-39



Bibliography

Ellis, "The Pompeian Bar," 398-400. Boyce, "Corpus of the Lararia," 61, DeFelice, Roman Hospitality, 261-242-243, pl. 2, 3.

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 250. Fiorelli, Descrizione, 172. PPM VI, 374-379;



a. Façade of bar.





e. The remains of painted wall decoration.

d. Counter top with marble decoration and embedded dolia.

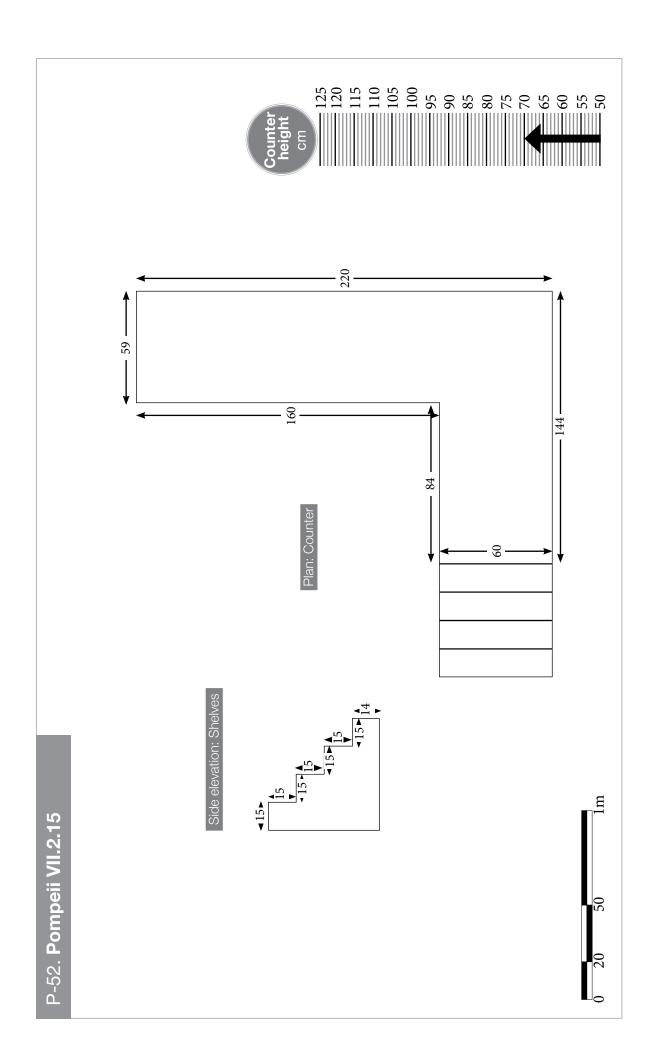


c. The lararium behind the counter.

b. The L-shaped counter with lararium behind.



f. Interior view of working area.



P-52. Pompeii VII.2.15



Bibliography

Ellis, "The Pompeian Bar," 402-404. Trollius, Gebäudeverzeichnis, 256-DeFelice, Roman Hospitality, 263. Eschebach and Müller-

257.

Fiorelli, Descrizione, 31. PPM VI, 510-529. Ruddell, "The Inn, Restaurant and Tavern Business," 98, no. 85.



c. The L-shaped counter with stepped shelves.



f. Looking out to the shops opposite.



a. Façade of bar.

b. Façade of bar.

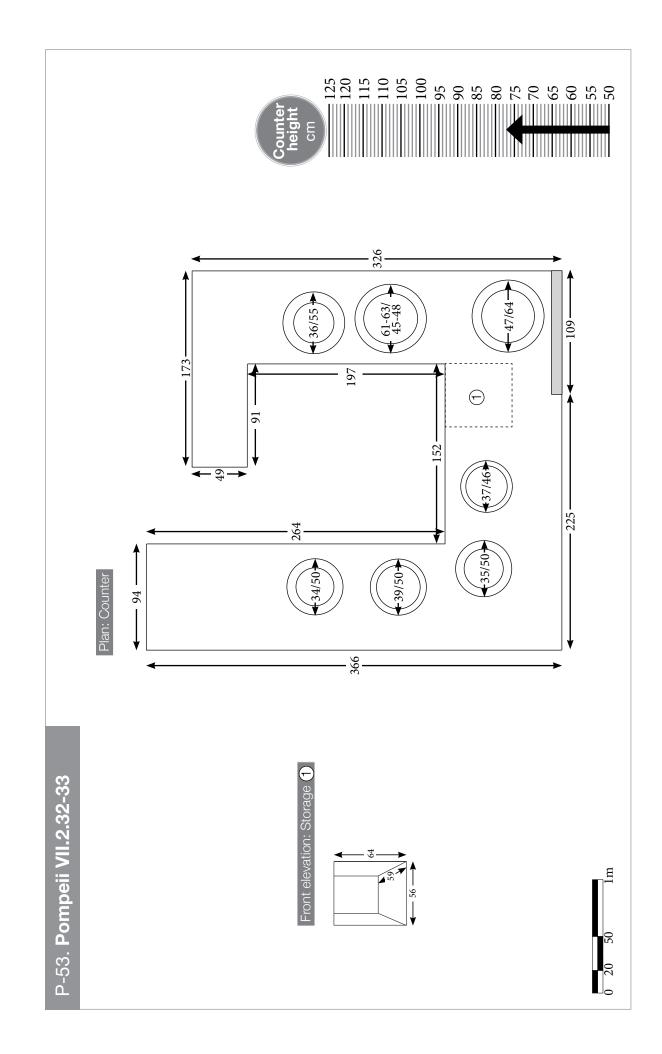


e. The remains of the attached hearth.

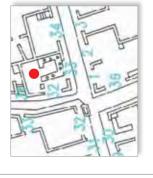




d. Rear view of the interior of the counter.



P-53. Pompeii VII.2.32-33



Bibliography

Ellis, "The Pompeian Bar," 405-407. DeFelice, Roman Hospitality, 264. Eschebach and Müller-Trollius, Gebäudeverzeichnis, 261.

Fiorelli, Descrizione, 35. PPM VI, 720-721.

Ruddell, "The Inn, Restaurant and Tavern Business," 98, no. 86.



a. Via degli Augustali with the bar and fountain on left.



b. Façade of bar.

c. Façade of bar from VII.2.32.



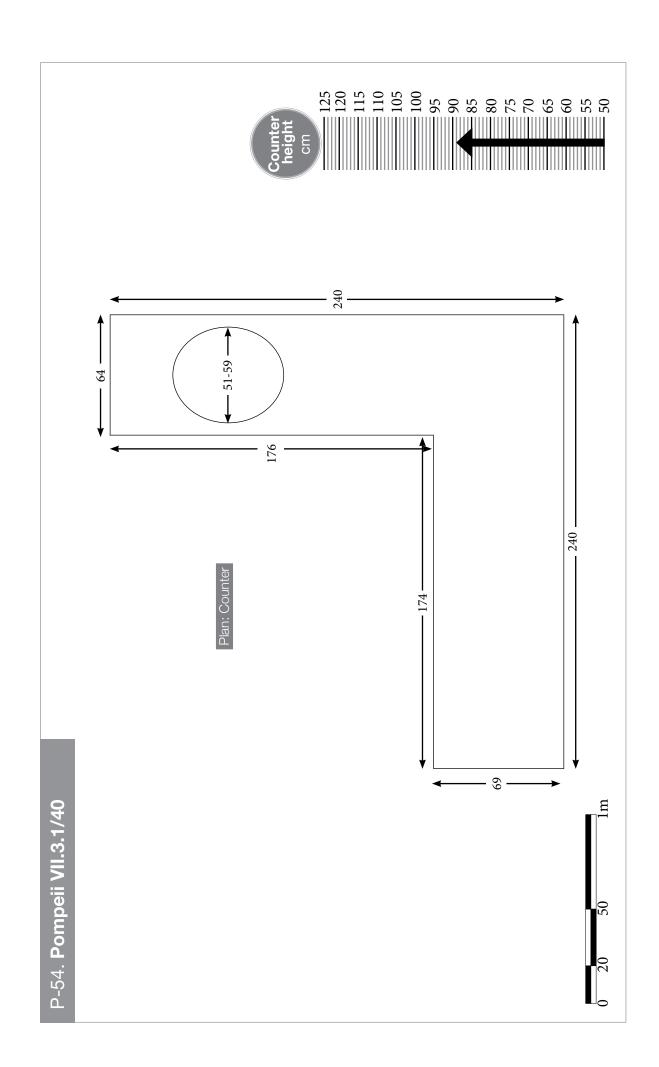
f. The under counter storage.



d. Side view of the U-shaped, marble clad counter.



e. View of the bar from the rear of the rooms.



P-54. Pompeii VII.3.1/40



Bibliography

Ellis, "The Pompeian Bar," 407-409. Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 265. DeFelice, Roman Hospitality, 265. Tavern Business," 99, no. 89. Fiorelli, Descrizione, 200. Eschebach and Müller-



a. Façade of bar.





c. The L-shaped, tile topped counter.

b. Façade of bar from VII.3340.



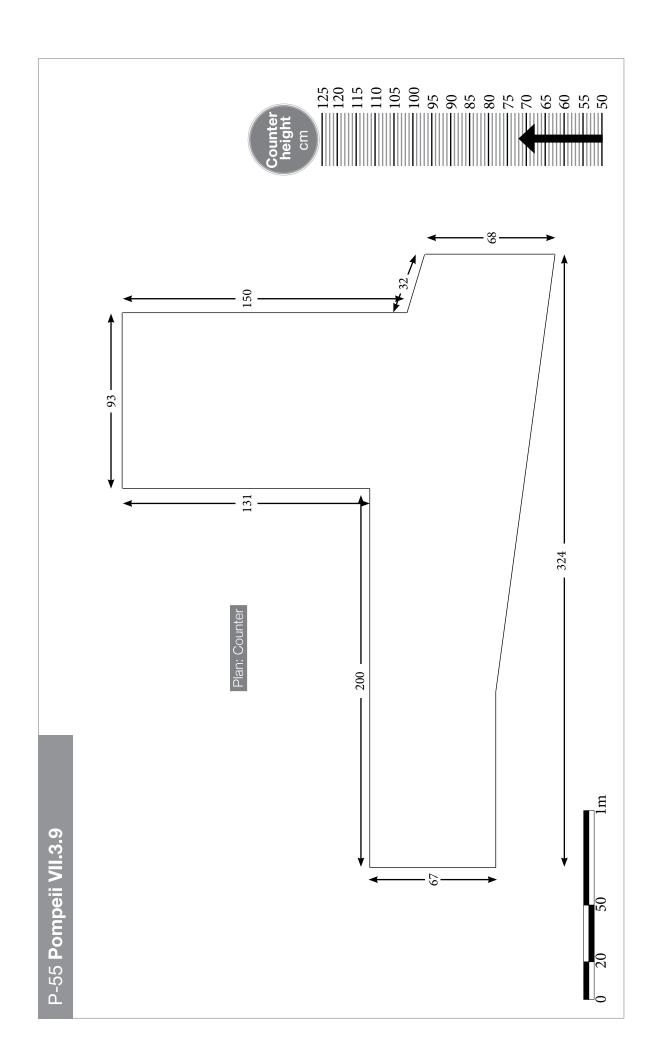
e. The remains of the hearth.

d. Interior view of working area.



f. Looking into the room directly behinds the counter with its painted decoration.





P-55 Pompeii VII.3.9



Bibliography

Ellis, "The Pompeian Bar," 411-412. DeFelice, Roman Hospitality, 266-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 266. Fiorelli, Descrizione, 201-202. Ruddell, "The Inn, Restaurant and Tavern Business," 100, no. 91.

PPM VI, 856-857;



c. The T-shaped counter.



f. Rear room with latrine.



b. Façade of bar.

a. Façade of bar.

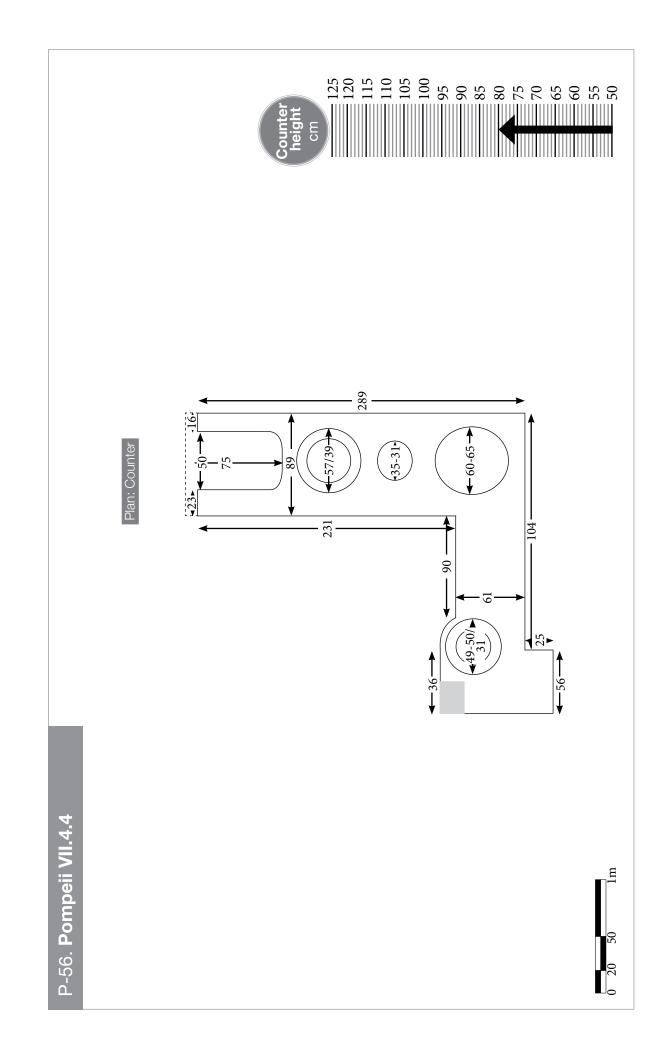


e. The separate hearth.



d. The tile topped counter surface.





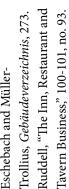
P-56. Pompeii VII.4.4



Bibliography

Ellis, "The Pompeian Bar," 417-419. DeFelice, Roman Hospitality, 268-

Eschebach and Müller-



a. Via del Foro, with the bar on the left.

b. Façade of bar.

c. Façade of bar.



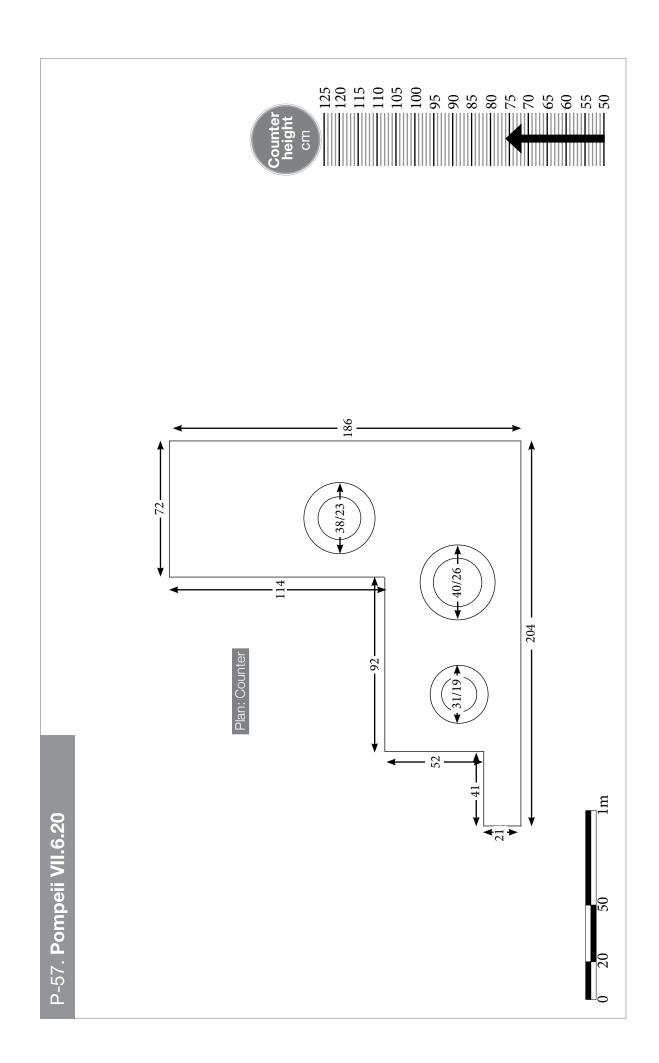


e. Counter top with marble decoration and embedded dolia.

d. The L-shaped counter.



f. The attached hearth.



P-57. Pompeii VII.6.20



Bibliography

Ellis, "The Pompeian Bar," 417-419. DeFelice, Roman Hospitality, 268-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 273. Fiorelli, Descrizione, 213.

Ruddell, "The Inn, Restaurant and Tavern Business," 100-101, no. 93.



a. Façade of bar.



c. Side view of the counter.

b. The L-shaped counter with embedded dolia.

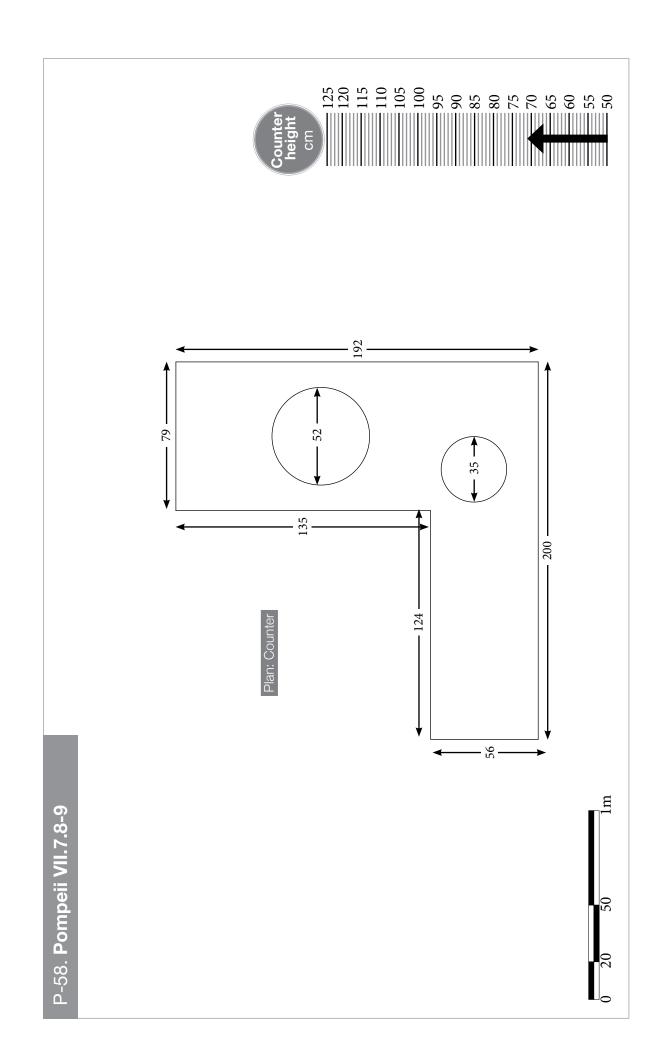


e. Interior view of working area.



f. The reconstructed counter top.





P-58. Pompeii VII.7.8-9



Bibliography

Ellis, "The Pompeian Bar," 433-434. DeFelice, Roman Hospitality, 274-

Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 300-

Ruddell, "The Inn, Restaurant and Tavern Business," 103, no. 101. Fiorelli, Descrizione, 246.





b. Façade of bar.



d. Interior view of working area.

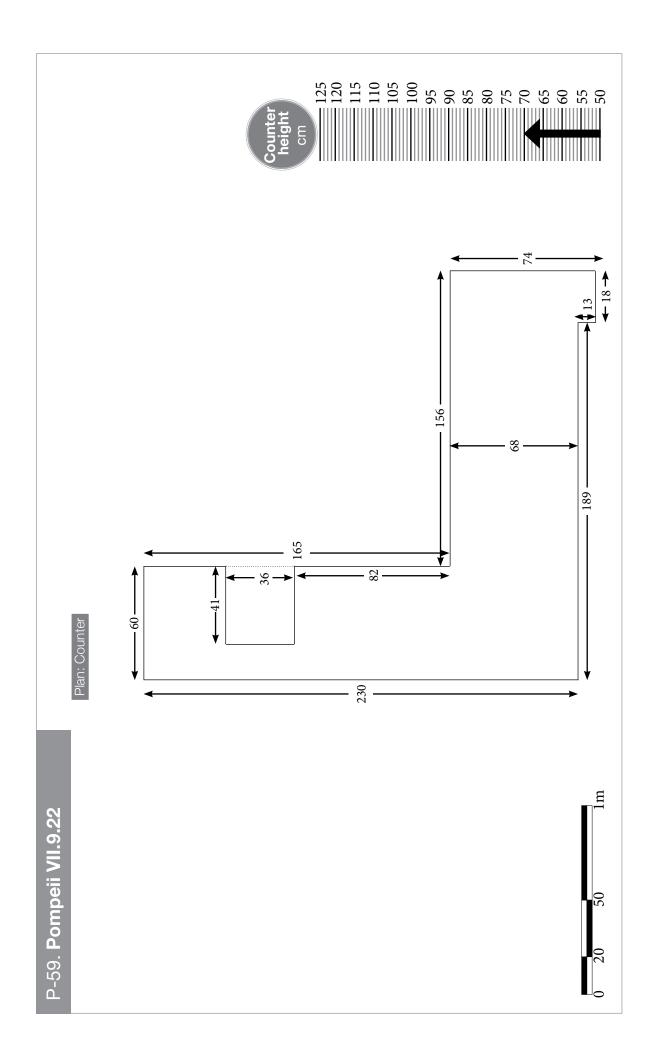


c. Side view of the counter.



f. The remains of painted wall decoration next to the counter.

e. Voids where the dolia were once embedded.



P-59. Pompeii VII.9.22



Bibliography

Ellis, "The Pompeian Bar," 438-440. Boyce, "Corpus of the Lararia," 68, Eschebach and Müllerno. 302



a. Façade of bar, stepping stone in front.

b. Façade of bar.





c. The L-shaped counter.



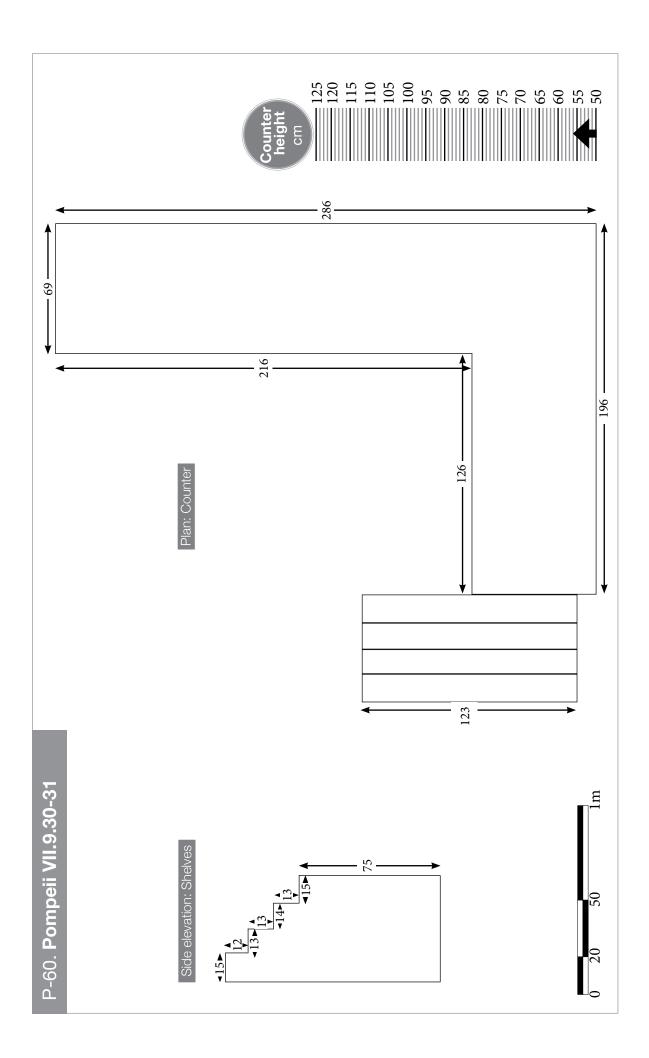
e. The hearth attached to the end of the counter arm.

d. Interior view of working area.



f. The lararium behind the counter and the base of a staircase.

Frollius, Gebäudeverzeichnis, 113.



P-60. Pompeii VII.9.30-31



Bibliography

Boyce, "Corpus of the Lararia," 111, Ellis, "The Pompeian Bar," 440-442. DeFelice, Roman Hospitality, 276. Trollius, Gebäudeverzeichnis, 305. Eschebach and Müllerno. 19.

Ruddell, "The Inn, Restaurant and

Tavern Business," 103, no. 103.



a. Façade of bar, with stepping stone in front.



b. Façade of bar.



e. The stepped shelves with storage beneath.

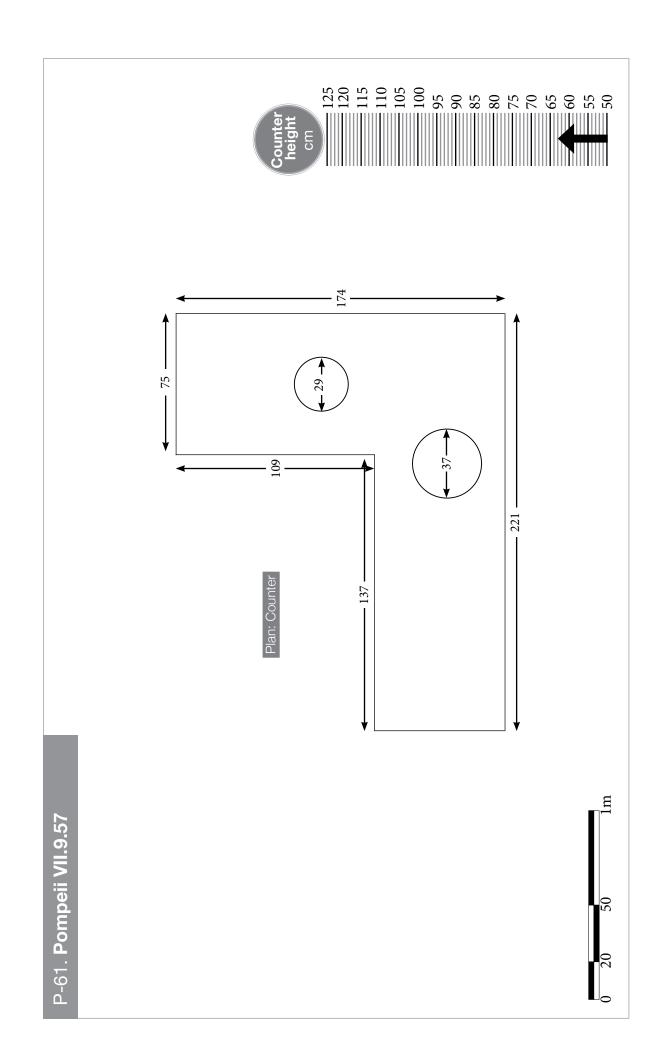
d. Looking out from the bar with fountains opposite.



c. The L-shaped counter with stepped shelves.



f. The hearth located in the room behind the main bar room.



P-61. Pompeii VII.9.57



Bibliography

Ellis, "The Pompeian Bar," 449-450. Trollius, Gebäudeverzeichnis, 318. Fiorelli, Descrizione, 271. Eschebach and Müller-



a. Façade of bar.





e. The rear room with doorway (right), to the latrine.

d. View from the rear of the bar room, looking out onto Vico d'Eumachia.

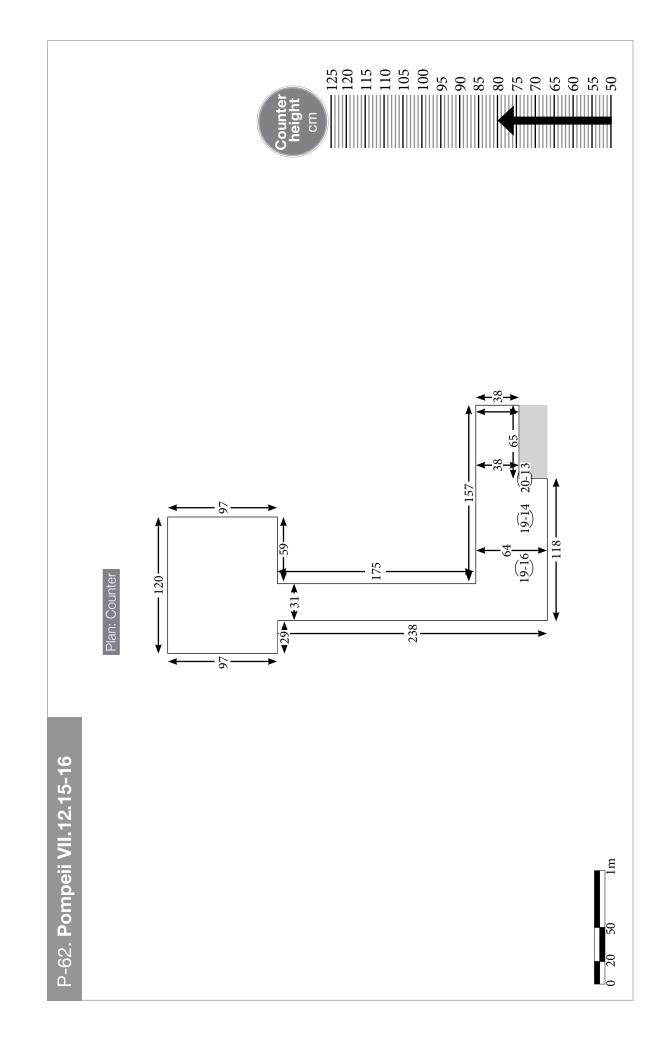


c. Side view of counter with the remains of painted decoration.

b. Façade of bar with view into rear room.



f. Threshold to rear room.



P-62. Pompeii VII.12.15-16



Bibliography

Ellis, "The Pompeian Bar," 452-454. Boyce, "Corpus of the Lararia," 71,

DeFelice, Roman Hospitality, 280. Trollius, Gebäudeverzeichnis, 329. Eschebach and Müller-

Fiorelli, Descrizione, 284-285. PPM VII, 500-501;

Ruddell, "The Inn, Restaurant and Tavern Business," 106, no. 109.



a. Façade of bar.



b. The L-shaped counter.

c. Interior view of working area.



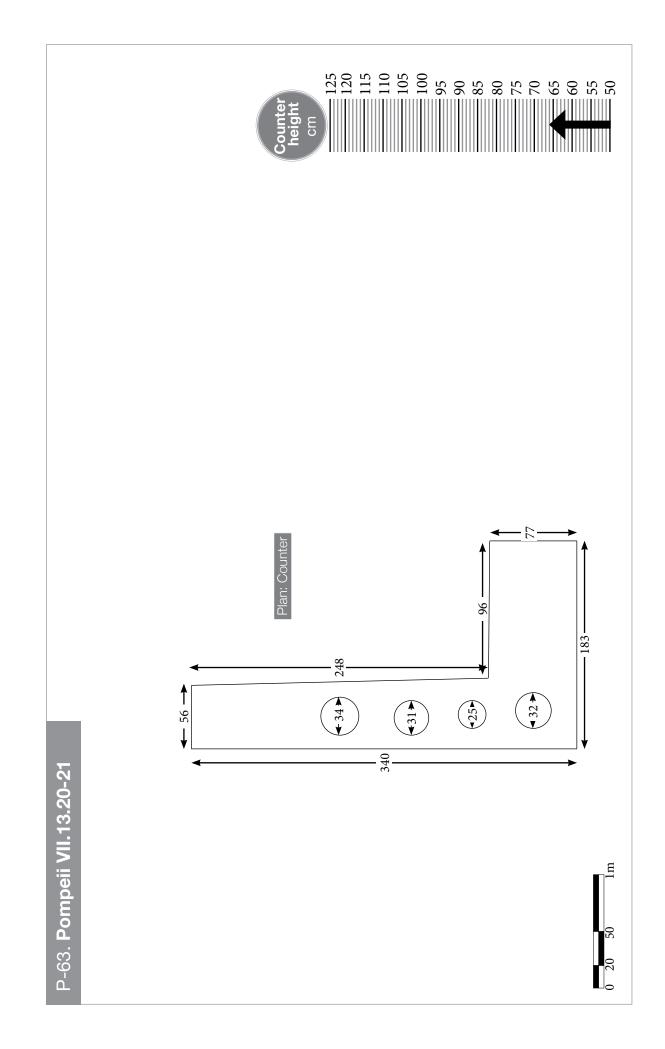
d. The hearth attached to the end of the counter arm.



e. The lararium behind the counter.



f. The remains of painted wall decoration in the rear room.



P-63. Pompeii VII.13.20-21



Bibliography

Ellis, "The Pompeian Bar," 454-456. DeFelice, Roman Hospitality, 282. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 336. Fiorelli, Descrizione, 299.

PPM VII, 655-658.

Ruddell, "The Inn, Restaurant and Tavern Business," 107 (labelled as VII.14.20/21).



a. Façade of bar.





e. The counter, now lacking the hearth that was once attached to the inner arm.

d. Side view of the counter.

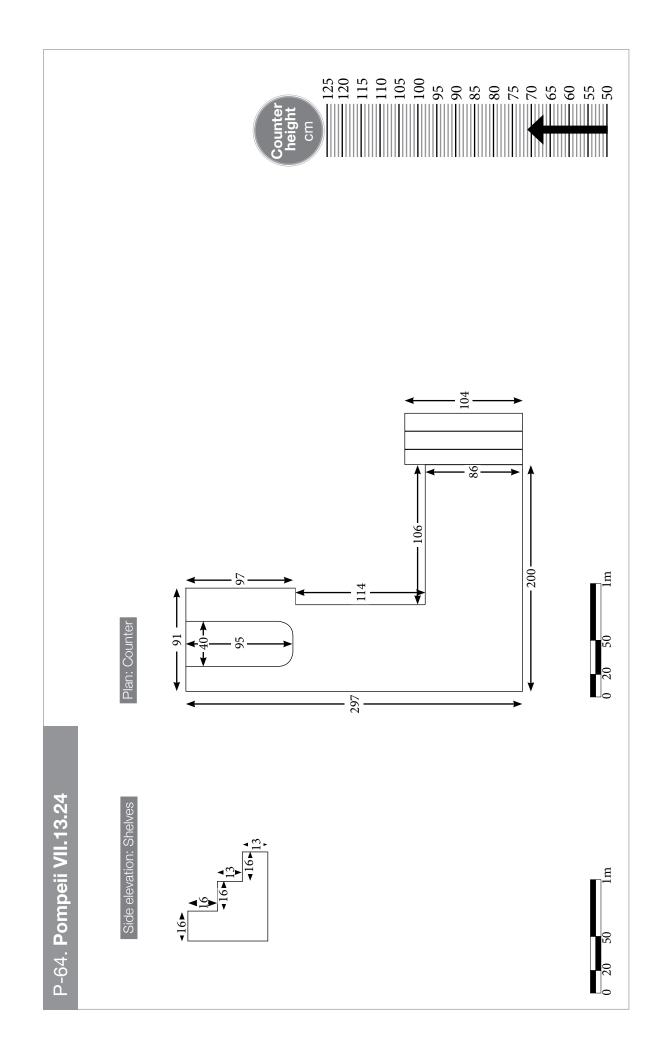


c. The embedded dolia.

b. The L-shaped counter.



f. Interior view of working area. At front of bar (right) a possible hearth.



P-64. Pompeii VII.13.24



Bibliography

Ellis, "The Pompeian Bar," 456-458. DeFelice, Roman Hospitality, 282. Eschebach and Müller-

Trollius, Gebäudeverzeichnis, 252-253.

Ruddell, "The Inn, Restaurant and Tavern Business," 108 (labelled as Fiorelli, Descrizione, 299. VII.14.24).



a. Façade of bar.





e. The stepped shelves attached to the counter.

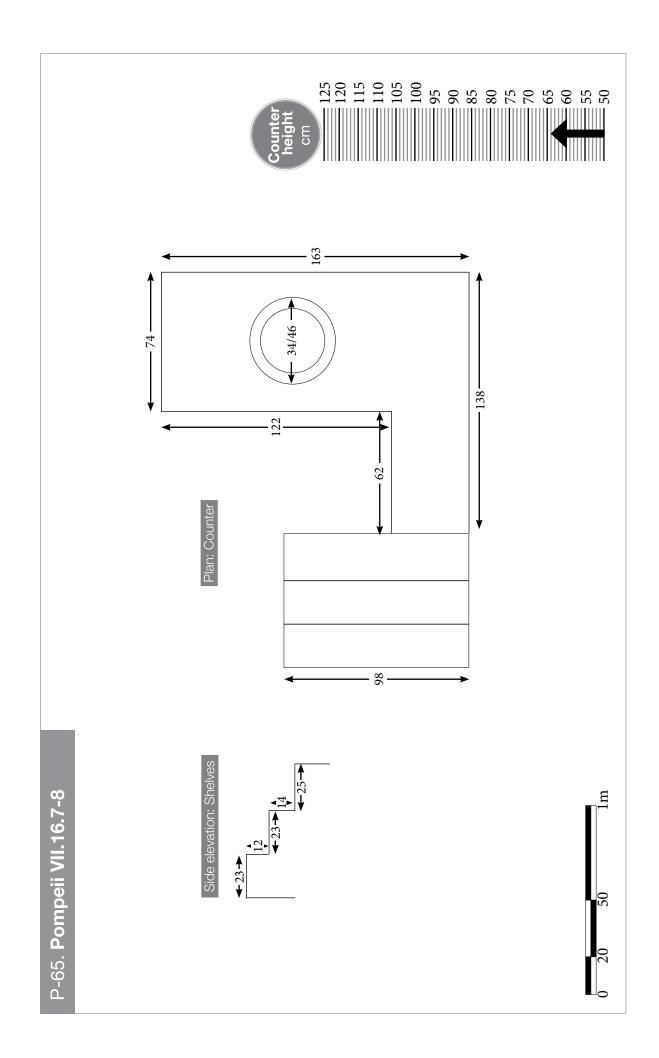


c. Side view of the counter.

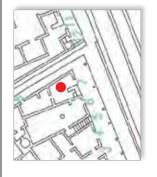
b. The L-shaped counter.



f. The remains of painted decoration on the rear wall of the bar room.



P-65. Pompeii VII.16.7-8



Bibliography

Boyce, "Corpus of the Lararia," 73, no. 337 Ellis, "The Pompeian Bar," 460-463.

Eschebach and Müller-Trollius, Gebäudeverzeichnis, 347.

trollius, Gebauaeverzeichnis, 34 Fiorelli, *Descrizione*, 440.

Ruddell, "The Inn, Restaurant and Tavern Business," 109, no. 116.



a. Façade of bar.



b. Side view of the L-shaped counter with dolium and stepped shelves.

c. The stepped shelves with storage beneath.



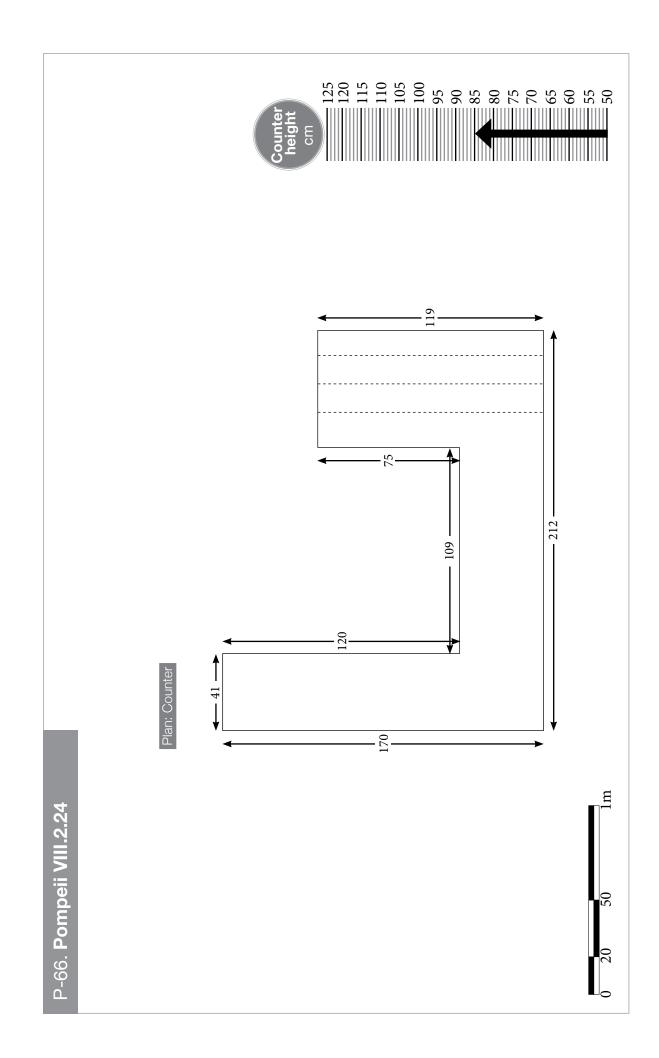
f. View of the bar from the rear of the property, view into VII.16.6 with mill.



d. View of the bar from the rear of the room.



e. The lararia.



P-66. Pompeii VIII.2.24



Bibliography

Ellis, "The Pompeian Bar," 464-465. Trollius, Gebäudeverzeichnis, 357-DeFelice, Roman Hospitality, 286. Eschebach and Müller-

Fiorelli, Descrizione, 445. PPM VIII, 166-190.

Ruddell, "The Inn, Restaurant and Tavern Business," 110, no. 117.



a. Façade of bar.

b. Façade of bar.





e. Rear wall of the bar room with the remains of painted decoration.

d. The storage area beneath the stepped

shelves.

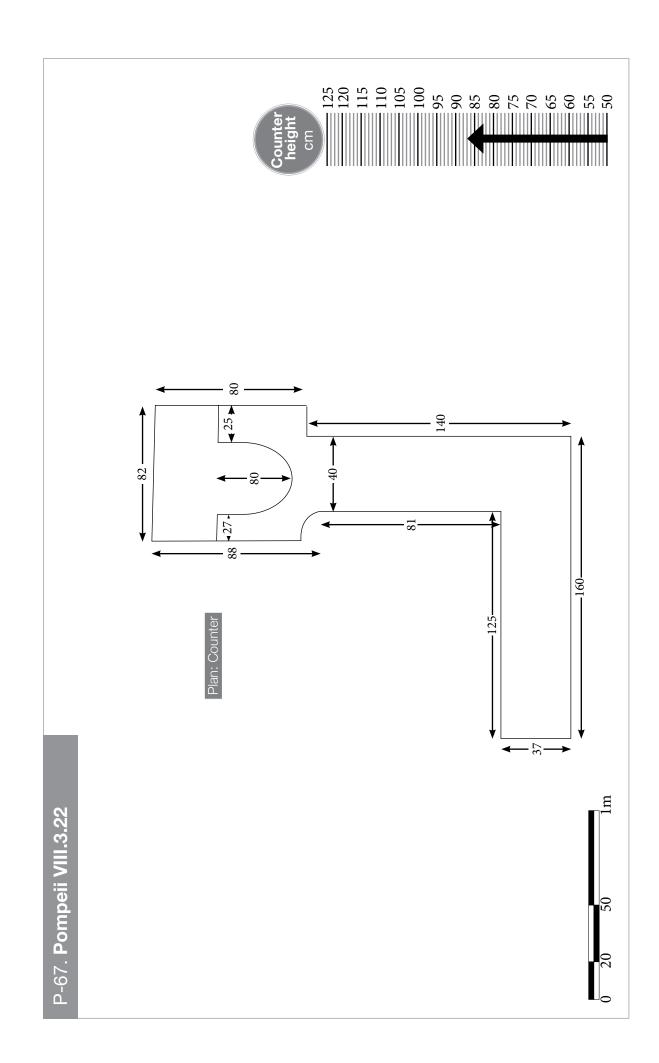


c. The L-shaped counter with stepped shelves and storage beneath.



f. Looking towards the two additional rooms, left is the kitchen.

358.



P-67. Pompeii VIII.3.22



Bibliography

Ellis, "The Pompeian Bar," 467-469. Trollius, Gebäudeverzeichnis, 366. Fiorelli, Descrizione, 328. Eschebach and Müller-





a. Façade of bar, VIII.3.22 on right.

b. Façade of bar.

c. The L-shaped counter.

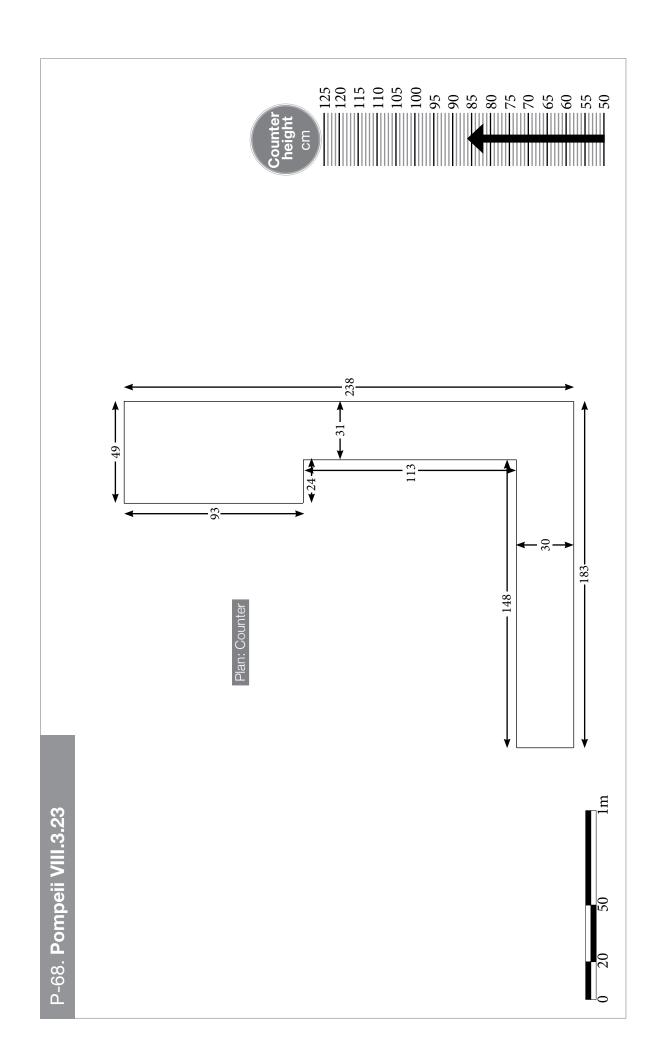


e. Interior view of working area. Remains of painted wall plaster.

d. View onto Via delle Scuole.



f. The hearth attached to the end of the counter arm.



P-68. Pompeii VIII.3.23



Bibliography

Ellis, "The Pompeian Bar," 469-471. Trollius, Gebäudeverzeichnis, 367. Eschebach and Müller-



a. Façade of bar, VIII.3.23 on left.

b. Façade of bar.

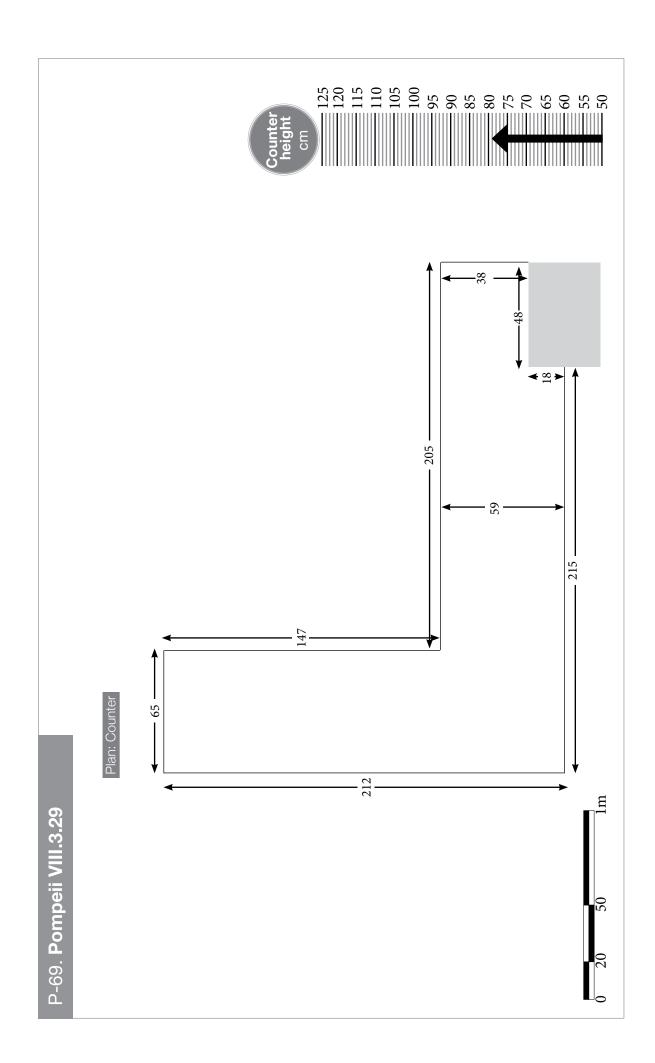




e. The remains of the hearth attached to the end of the counter arm.



f. The remains of a latrine at the back of the bar room.



P-69. Pompeii VIII.3.29



Bibliography

Ellis, "The Pompeian Bar," 471-472. Trollius, Gebäudeverzeichnis, 368. Eschebach and Müller-



a. Façade of bar.



b. Façade of bar.



c. The L-shaped counter.



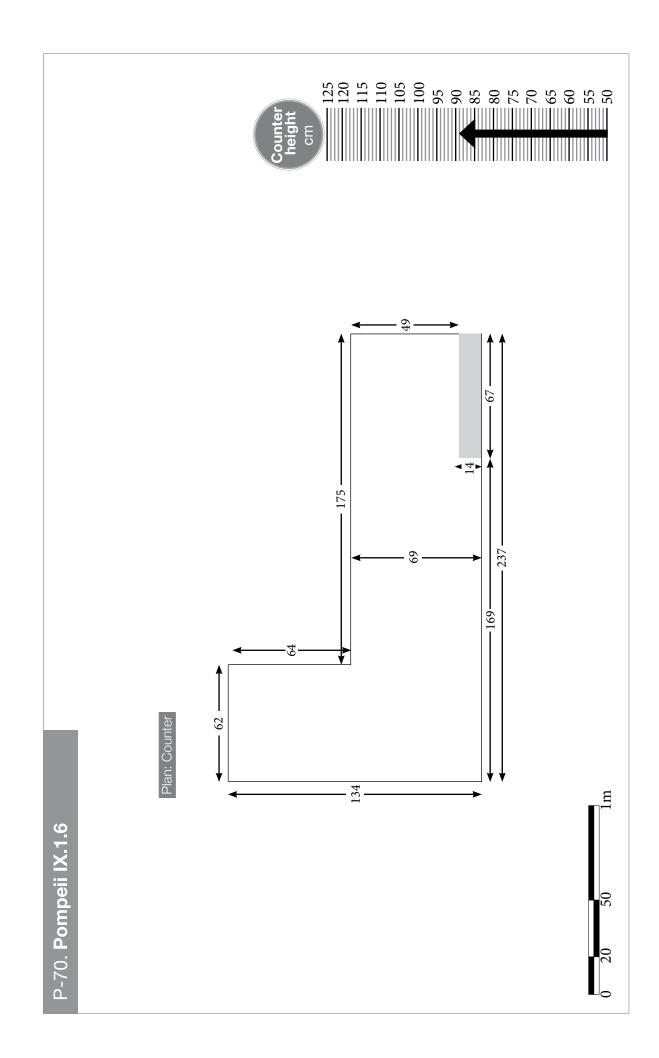
d. Side view of the counter.



e. Interior view of working area.



f. View onto Via delle Scuole with fountain and the forum in the distance.



P-70. Pompeii IX.1.6



Bibliography

Ellis, "The Pompeian Bar," 481-483. Trollius, Gebäudeverzeichnis, 398-DeFelice, Roman Hospitality, 291. Eschebach and Müller-399.

a. Façade of bar.

Fiorelli, Descrizione, 368. PPM VIII, 864-868

Ruddell, "The Inn, Restaurant and Tavern Business," 112, no. 123.



b. The L-shaped, marble topped counter.

c. Interior view of working area.



f. Plaque with tools on the façade between IX.1.5 and IX.1.6.

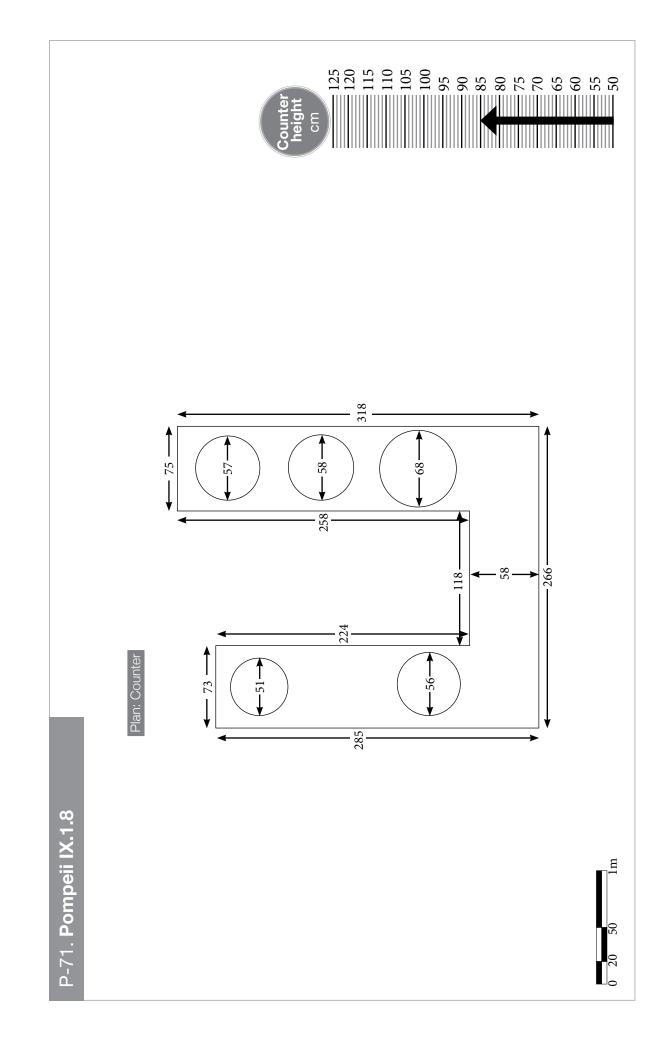


e. View into rear room of the bar.





d. Base of staircase in the rear of the bar room.



P-71. Pompeii IX.1.8



Bibliography

Ellis, "The Pompeian Bar," 483-485. Boyce, "Corpus of the Lararia," 79, no. 382.

DeFelice, Roman Hospitality, 291. Trollius, Gebäudeverzeichnis, 399. Eschebach and Müller-

a. Façade of bar.

Fiorelli, Descrizione, 369.

PPM VIII, 888-892.

Ruddell, "The Inn, Restaurant and Tavern Business," 112, no. 124.



wall with painted decoration and holes b. Side view of the U-shaped counter, for shelving.

c. Interior view of working area.



e. Rear room to the left of the counter.

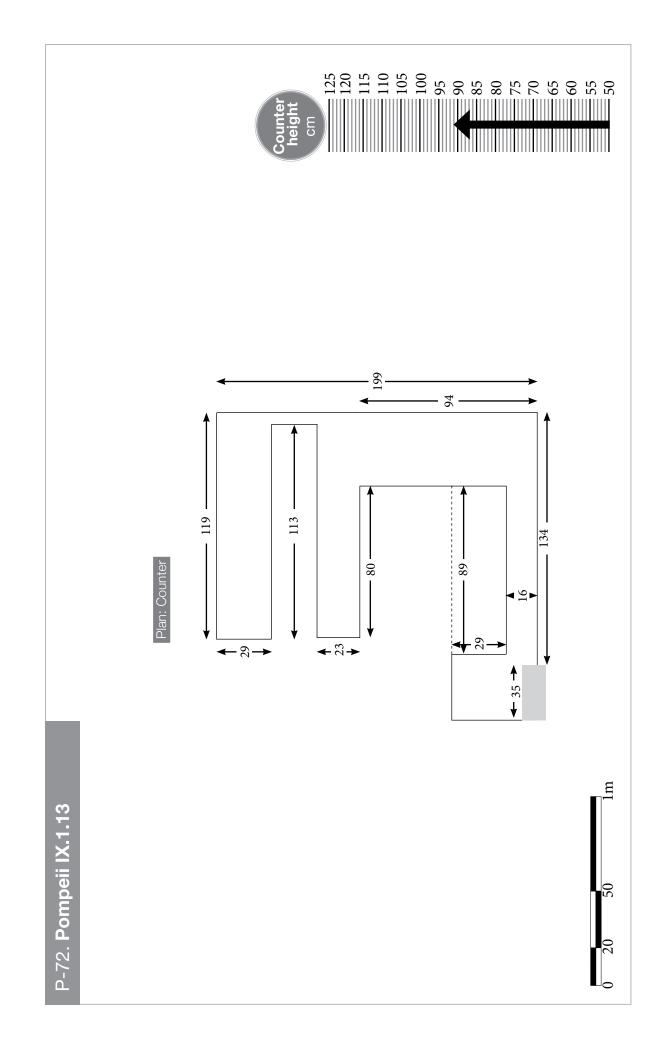


f. Rear room located behind the counter with the remains of painted decoration.



d. The remains of the hearth at the front of the bar room.





P-72. Pompeii IX.1.13



Bibliography

Ellis, "The Pompeian Bar," 485-487. Gassner, Die Kaufläden in Pompeii, Trollius, Gebäudeverzeichnis, 400. Fiorelli, Descrizione, 370. Eschebach and Müller-



a. Façade of bar.





c. The L-shaped counter.



d. The front arm of the counter.

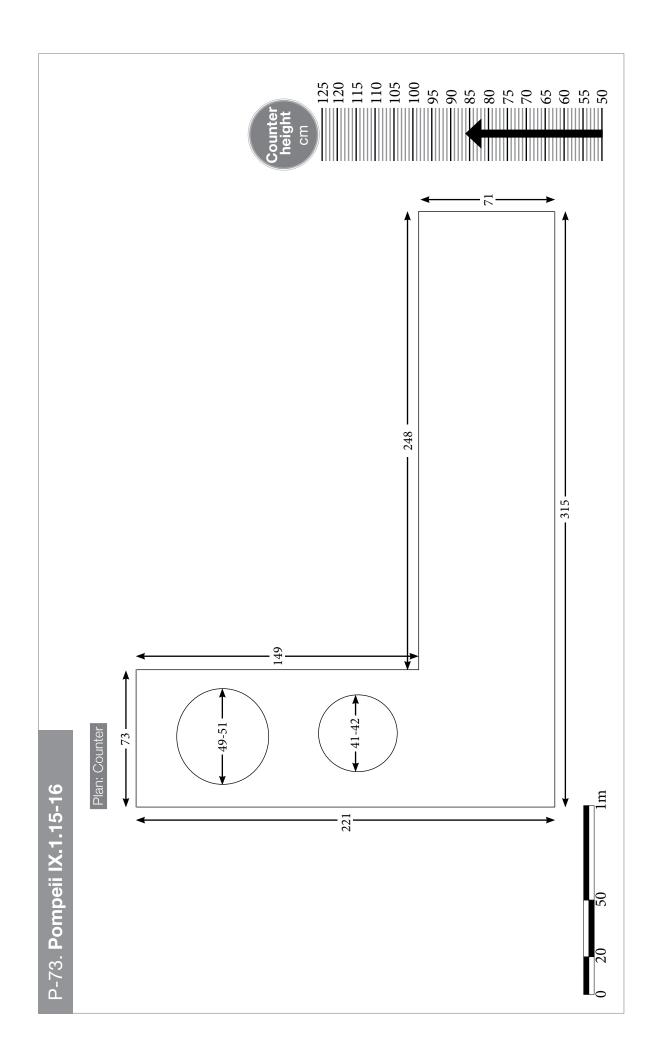


e. The hearth attached to the counter.



f. The base of a staircase, right.

PPM VIII, 893-905.



P-73. Pompeii IX.1.15-16



Bibliography

Boyce, "Corpus of the Lararia," 79 no. 384.

Ellis, "The Pompeian Bar," 487-489. DeFelice, *Roman Hospitality*, 292. Eschebach and Müller-

a. Façade of bar.

Trollius, Gebäudeverzeichnis, 400-

401.

PPM VIII, 906-909. Ruddell, "The Inn, Restaurant and

Tavern Business," 112, no. 125.



d. Lararium behind the counter.



b. Façade of bar from Strada Stabiana.



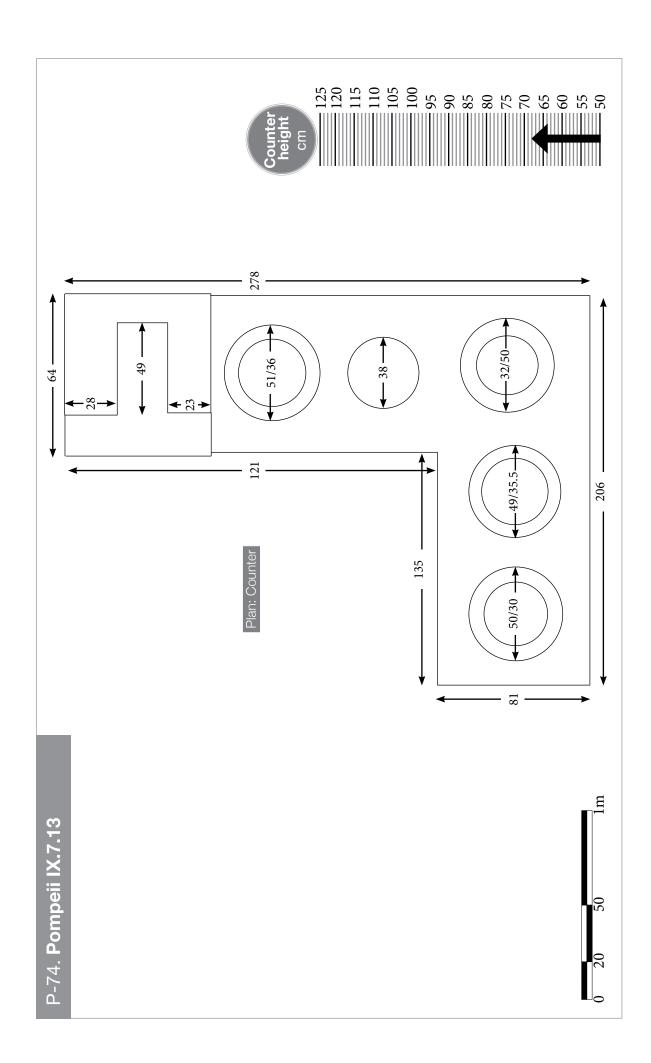
c. Counter top with marble decoration and embedded dolia.



e. The remains of painted decoration on the wall and front of the counter.



f. View into the bar room from the rear room.



P-74. Pompeii IX.7.13



Bibliography

Ellis, "The Pompeian Bar," 495-497. Tavern Business," 114-115, no. 132. Ruddell, "The Inn, Restaurant and Trollius, Gebäudeverzeichnis, 432. DeFelice, Roman Hospitality, 298. Eschebach and Müller-



a. Façade of bar with stepping stone.





b. Façade of bar.

c. Counter top with marble decoration

and embedded dolia.



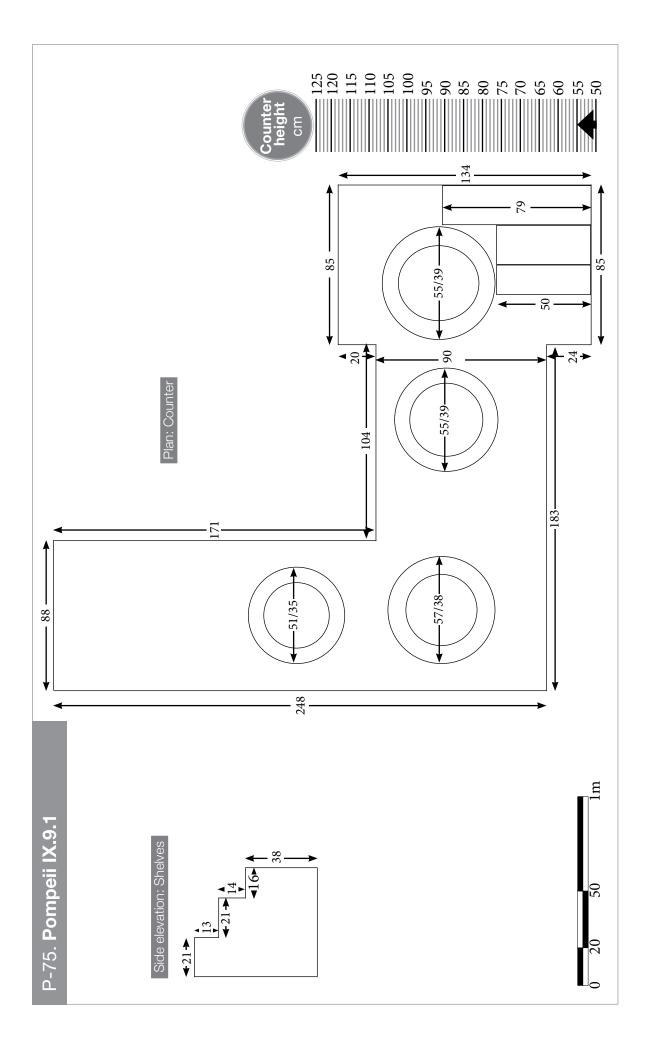
f. The remains of painted wall decoration at the back of the bar room.



d. Side view of the counter, the bar at I.4.27 opposite.



e. The hearth attached to the counter.



P-75. Pompeii IX.9.1



Bibliography

Boyce, "Corpus of the Lararia," 90, no. 453.
Ellis, "The Pompeian Bar," 501-502.

Ellis, "The Pompeian Bar," 501-50. DeFelice, Roman Hospitality, 302-303.

Eschebach and Müller-Trollius, *Gebäudeverzeichnis*, 440. Jashemski, *Gardens of Pompeii*, Vol. 2, Appendix, 246, no. 509. Ruddell, "The Inn, Restaurant and



a. Façade of bar.

b. Façade of bar.



Tavern Business," 117, no. 138.

d. Side view of the counter.

e. Interior view of working area.

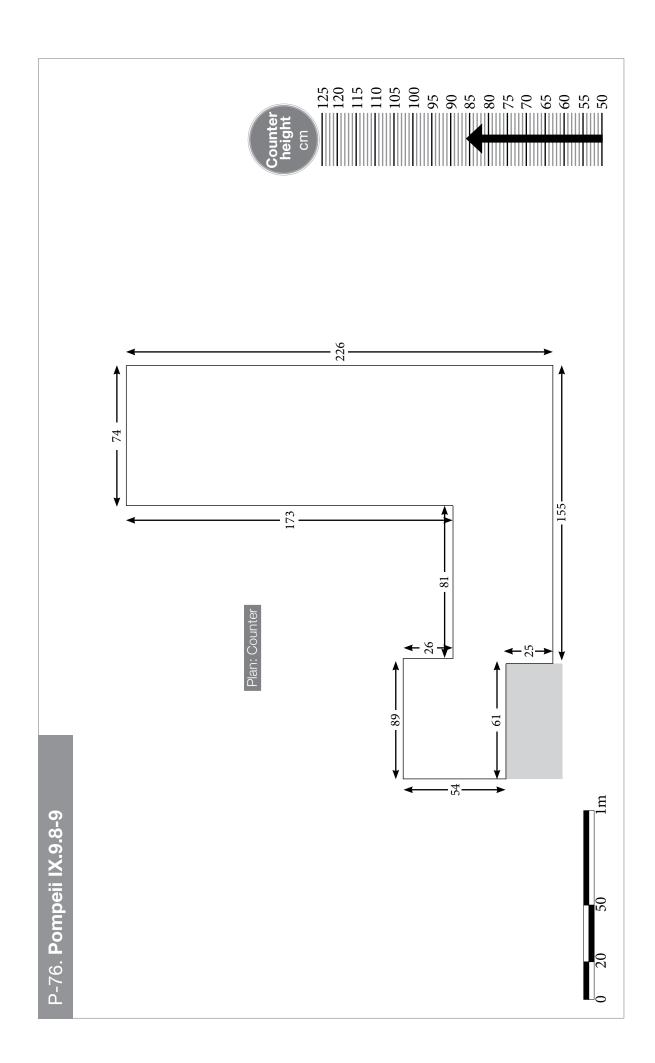


c. L-shaped counter with embedded dolia and stepped shelves.



f. The stepped shelves and lararium behind the counter.





P-76. Pompeii IX.9.8-9



Bibliography

Ellis, "The Pompeian Bar," 503-504. Boyce, "Corpus of the Lararia," 91, DeFelice, Roman Hospitality, 303. no. 460.

Trollius, Gebäudeverzeichnis, 442. Eschebach and MüllerJashemski, Gardens of Pompeii, Vol. 2, Appendix, 247, no. 512.

Gassner, Die Kaufläden in Pompeii, Ruddell, "The Inn, Restaurant and Tavern Business," 118, no. 139.



a. Façade of bar.



b. Side view of the L-shaped counter.

c. Interior view of working area.



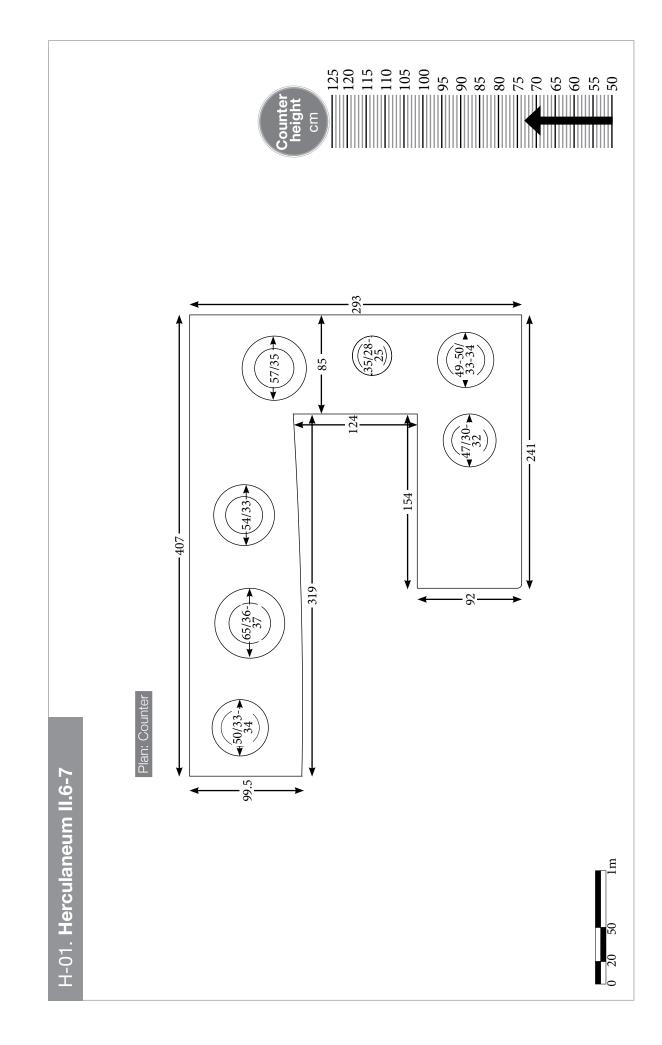
f. View from the corridor looking towards the bar room.



decoration in the room behind the d. The remains of painted wall counter.



e. View from the garden area, looking into one of the additional rooms.



H-01. Herculaneum II.6-7



Bibliography

Monteix, Les Lieux de Métier, 377-Maiuri, Amedeo, Ercolano, 23.

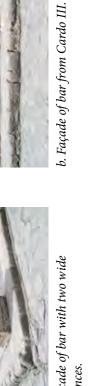
Fabrizio Pesando and Maria Paola Guidobaldi, Pompei, Oplontis, Mario Pagano, Ercolano, 40. Ercolano, Stabiae, 316.



a. Façade of bar with two wide



entrances.



c. The U-shaped counter.

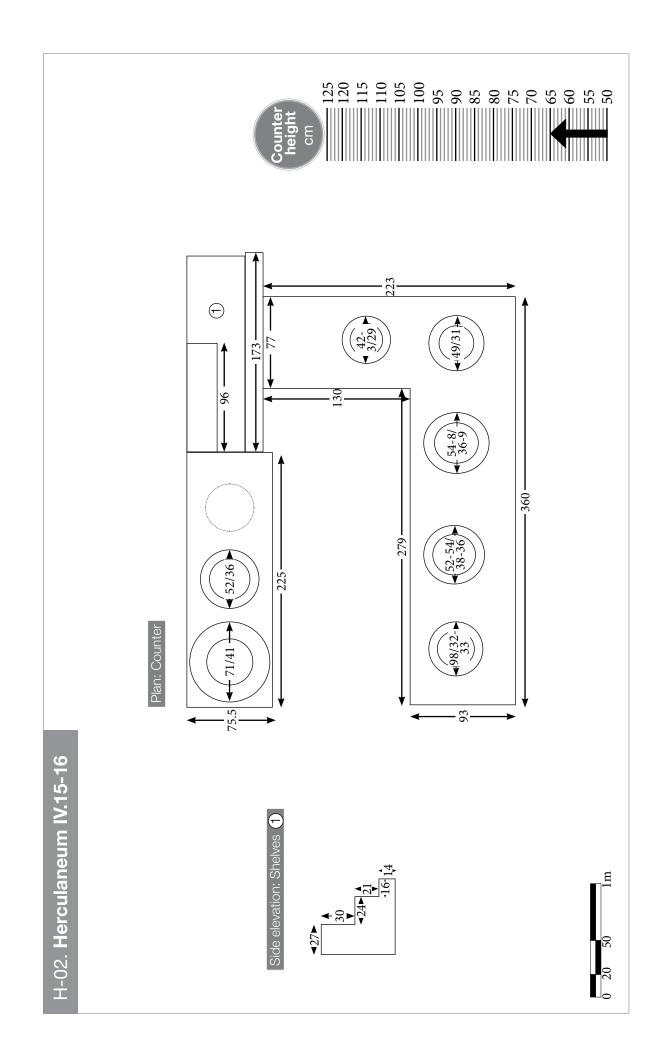


d. Counter top with marble decoration and embedded dolia.

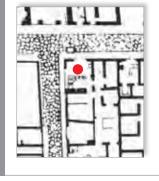


f. The remains of a hearth at the entrance to the bar.





H-02. Herculaneum IV.15-16



Bibliography

Monteix, Les Lieux de Métier, 384-Maiuri, Amedeo, Ercolano, 46-47.

Fabrizio Pesando and Maria Paola Guidobaldi, Pompei, Oplontis, Mario Pagano, Ercolano, 84. Ercolano, Stabiae, 336-337.



a. Façade of bar.





b. Front of the U-shaped counter with the remains of painted decoration.

c. Counter with marble decoration, embedded dolia and stepped shelves.



f. Looking into the rear rooms, left, the lararium.

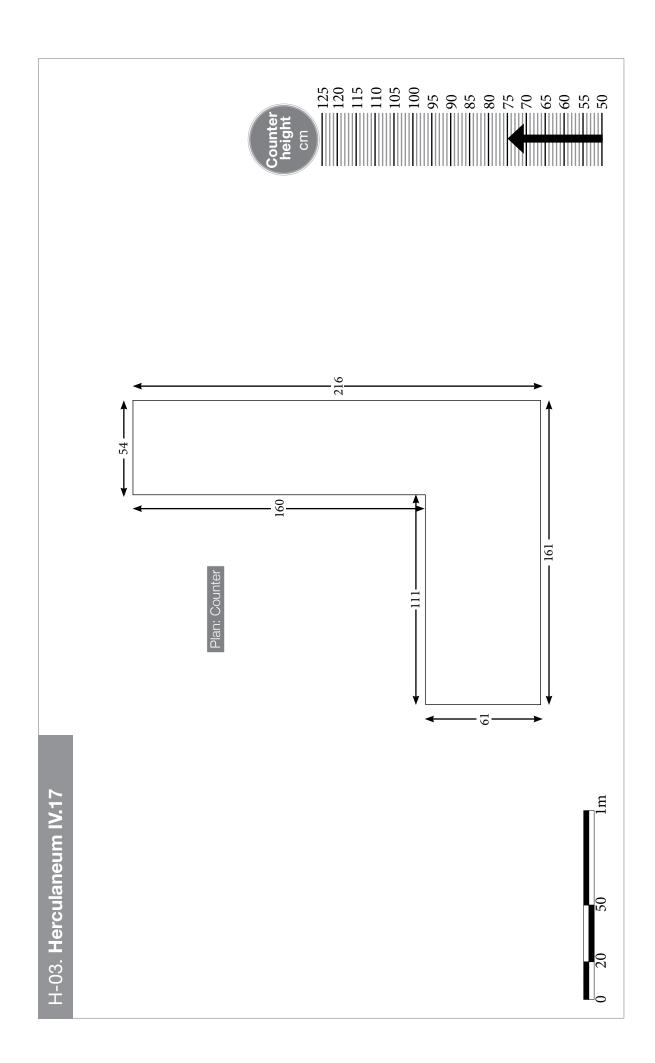


e. Painted decoration in the room adjacent to the kitchen.

d. The kitchen with the remains of the

heath.





H-03. Herculaneum IV.17



Bibliography

Fabrizio Pesando and Maria Paola Maiuri, Amedeo, Ercolano, 47-48. Monteix, Les Lieux de Métier, 387. Mario Pagano, Ercolano, 84-85. Guidobaldi, Pompei, Oplontis, Ercolano, Stabiae, 337-338.



a. Façade of bar.





b. The L-shaped counter.

c. The basin in front of the counter.



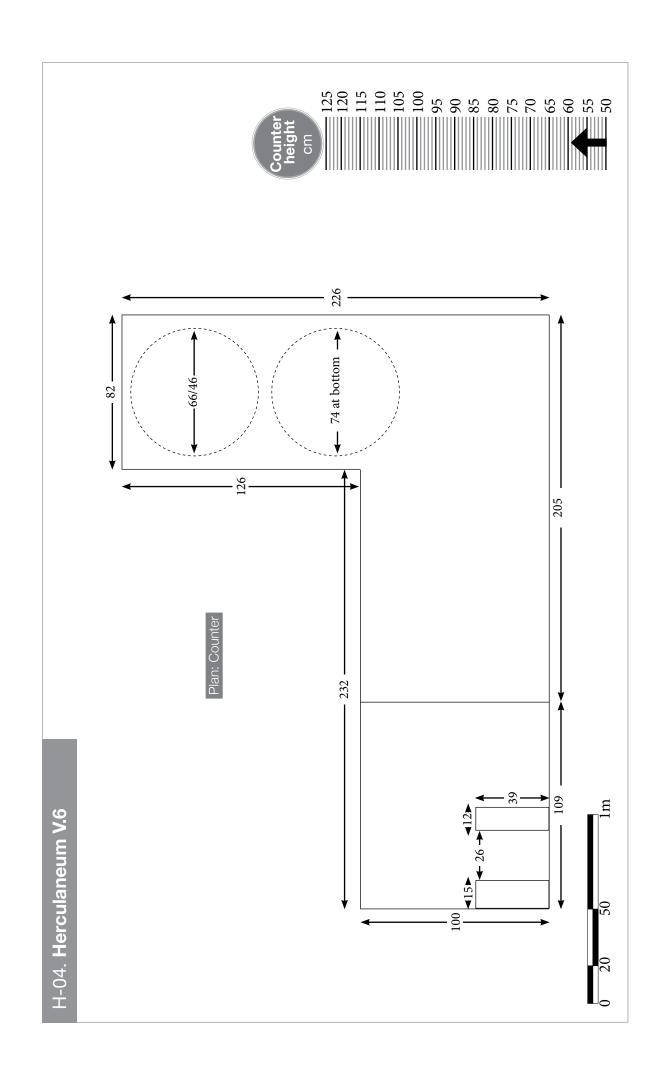
f. The low bench in the rear room of the bar.



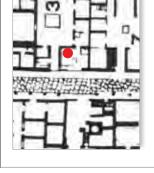
remains of painted wall decoration and window looking onto the triclinium. d. Side view of the counter with the



e. The remains of a dolium at the front of the bar and site of the hearth.



H-04. Herculaneum V.6



Bibliography

Maiuri, Amedeo, Ercolano, 35-36. Monteix, Les Lieux de Métier, 389-

Fabrizio Pesando and Maria Paola Guidobaldi, Pompei, Oplontis, Ercolano, Stabiae, 350.



a. Façade of bar.





b. Façade of bar.

c. The L-shaped counter with dolia.

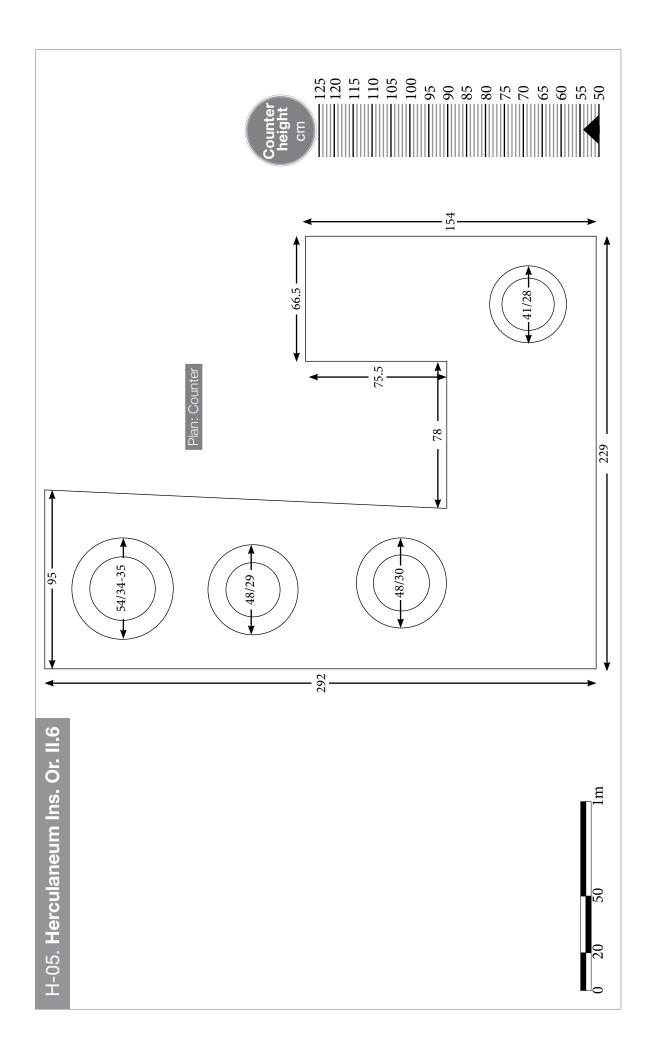




e. The hearth at the rear of the bar room.

d. The hearth at the front of the bar room.





H-05. Herculaneum Ins. Or. II.6



Bibliography

Monteix, Les Lieux de Métier, 411-Maiuri, Amedeo, Ercolano, 59. Mario Pagano, Ercolano, 76.



a. Façade of bar.



c. Interior view of working area.



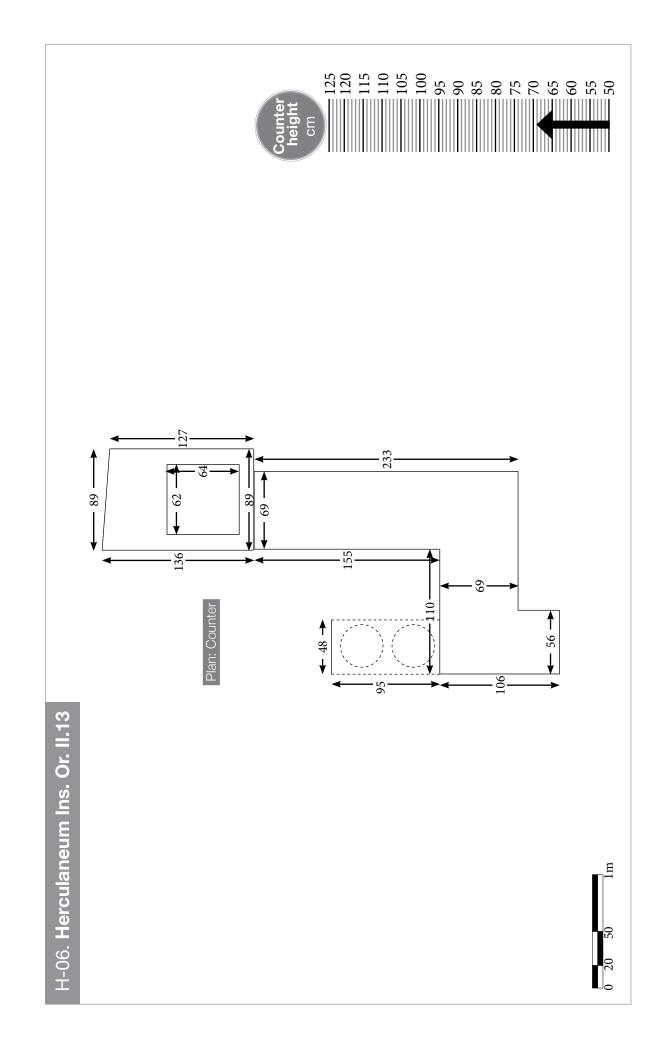
d. Counter top with marble decoration and embedded dolia.



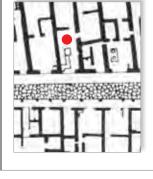
f. View into the rear rooms of the bar.



e. View from the rear of the bar room.



H-06. Herculaneum Ins. Or. II.13



Bibliography

Monteix, Les Lieux de Métier, 418-Maiuri, Amedeo, Ercolano, 59. 419.



a. Façade of bar.





c. Counter top with marble decoration.

b. The front of the counter with the remains of painted decoration.

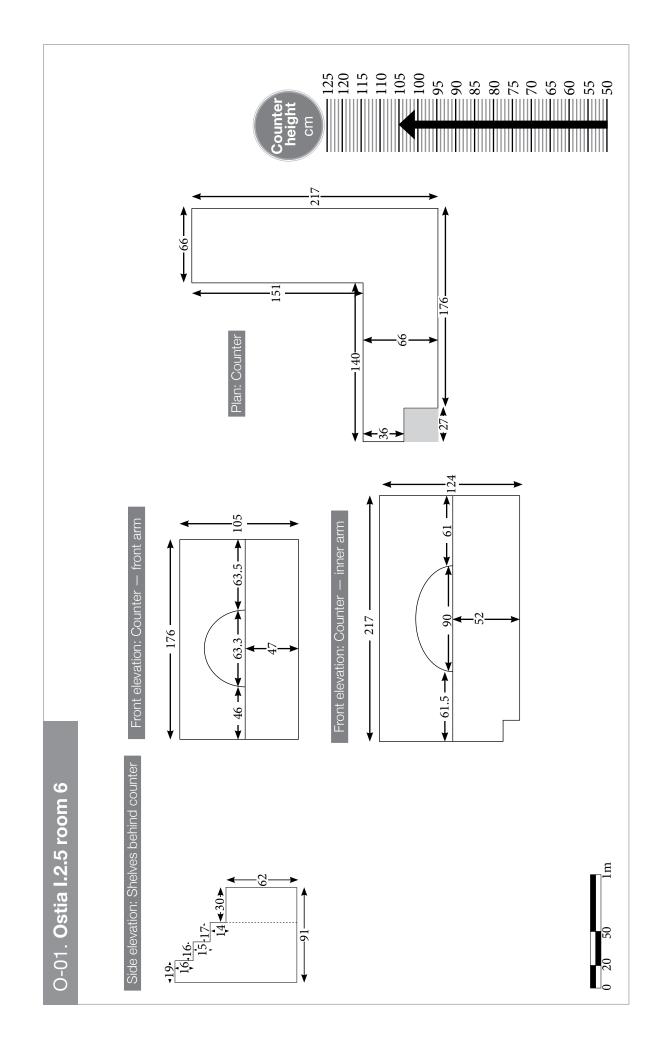


e. The hearth attached to the counter.

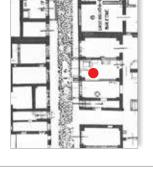
d. The side of the counter with the remains of painted decoration.



f. Looking towards the rear of the establishment.



O-01. Ostia I.2.5 room 6



Bibliography

Kleberg, Hôtels, Restaurants et Hermansen, Ostia, 130-132. Calza and Becatti, Ostia, 26. Girri, La Taberna, 9. Cabarets, 46.

Meiggs, Roman Ostia, 428-429. NSc, 1915, 27-31

Pavolini, Ostia. 87-88.



a. Façade of bar.





e. The adjoining room with hearth at the rear (left).

fresco above.

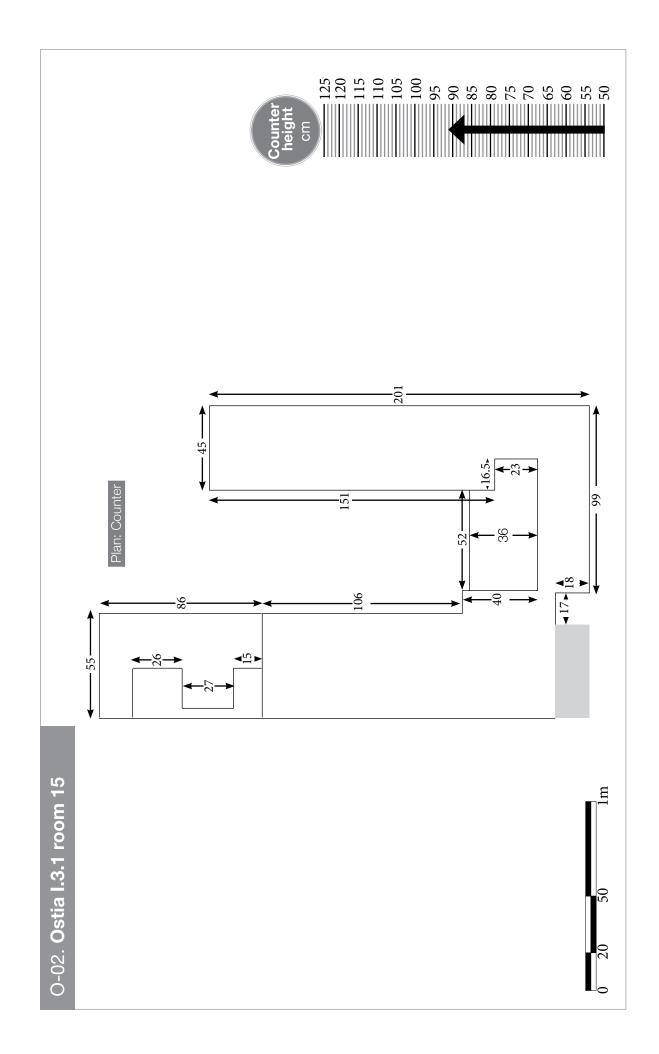


c. The interior of the counter with basins and stepped shelves.

b. The front of the counter and mosaic pavement.



f. The hearth.



O-02. Ostia I.3.1 room 15



Bibliography

Hermansen, Ostia, 127-129. Girri, La Taberna, 91.





a. Façade of bar.

b. Façade of bar.

c. Side view of the U-shaped counter.



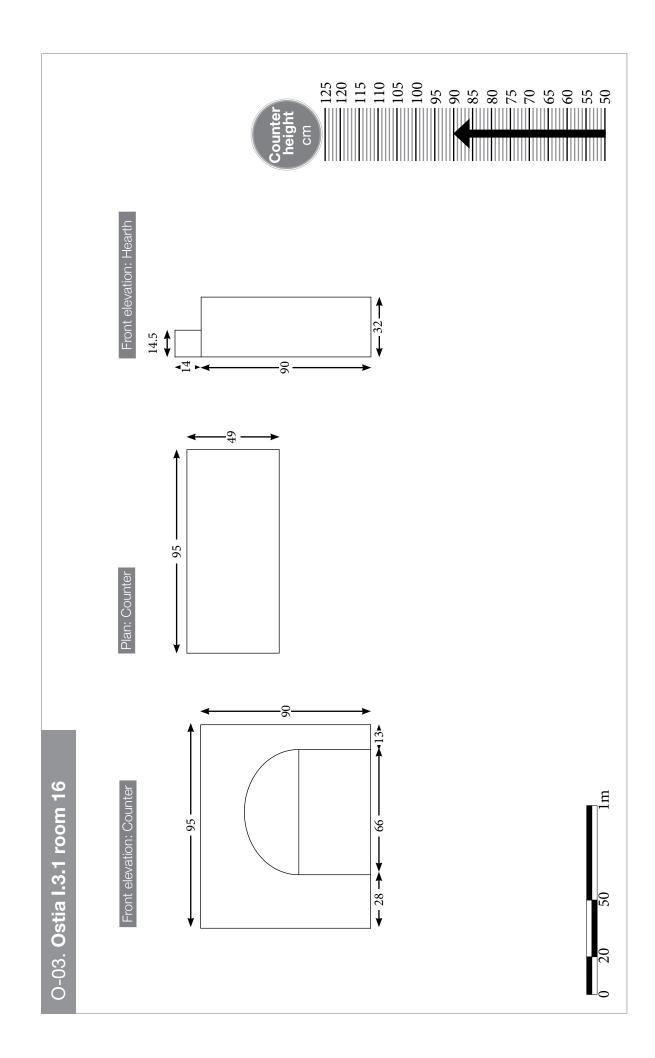


f. The attached hearth.

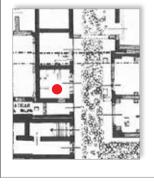


e. Interior view of working area.

the arm.



O-03. Ostia I.3.1 room 16



Bibliography

Hermansen, Ostia, 129-130. Girri, La Taberna, 10.



a. Façade of bar.



b. Façade of bar.

c. The I-shaped counter.

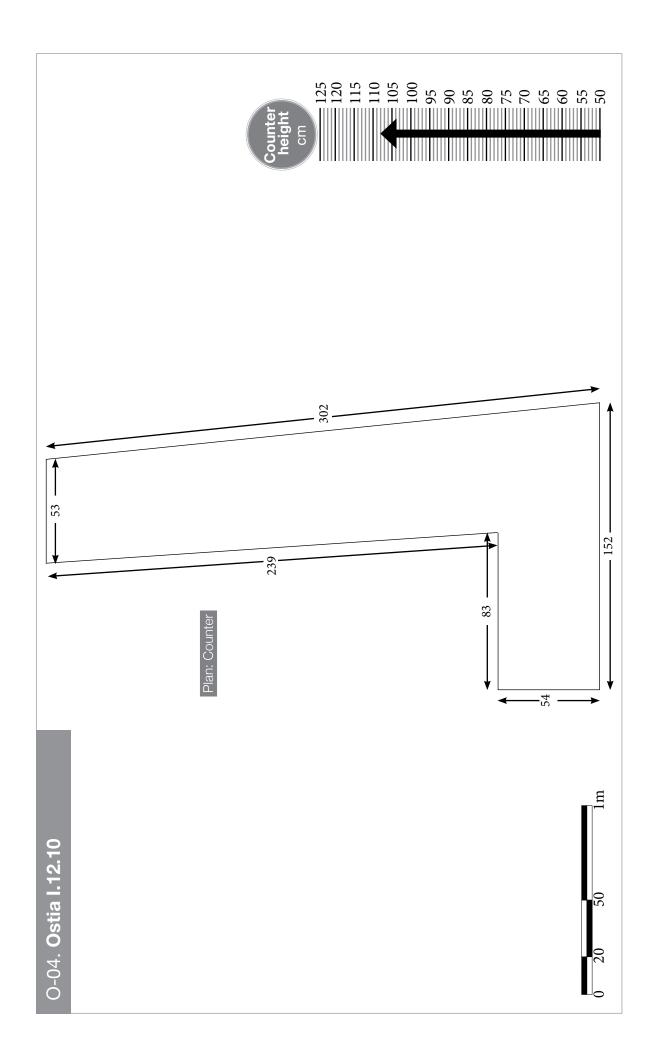


e. The remains of the hearth.



f. The interior of the counter basin.





O-04. Ostia I.12.10



Hermansen, Ostia, 135. Girri, La Taberna, 15. **Bibliography**



a. Façade of bar.



b. Façade of bar.



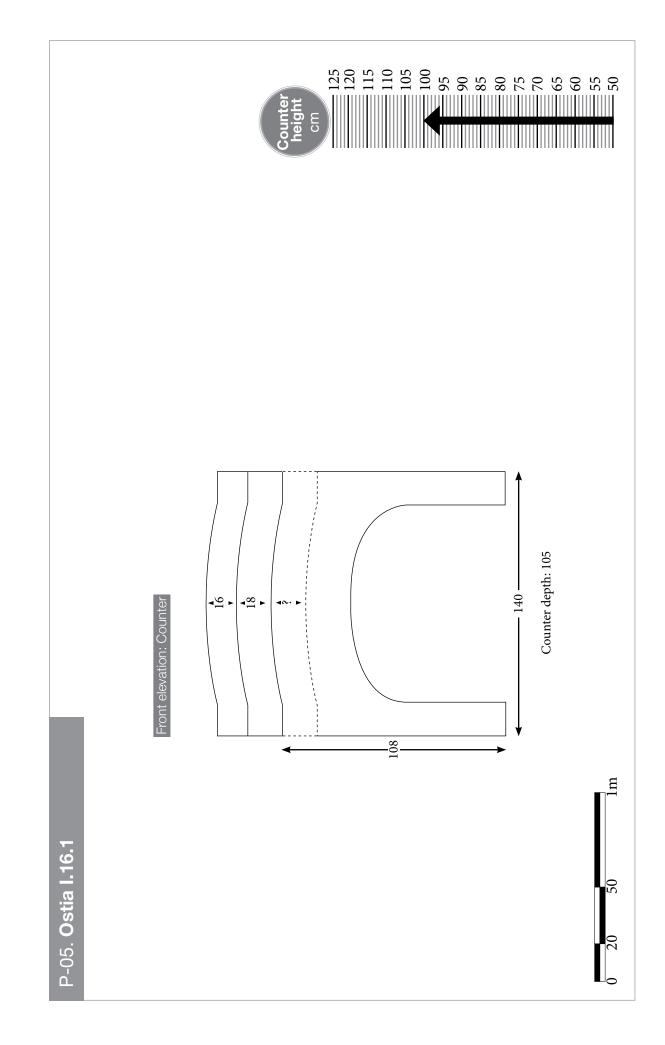
e. View of the bar room from the second entrance.

d. The counter with mortaria.





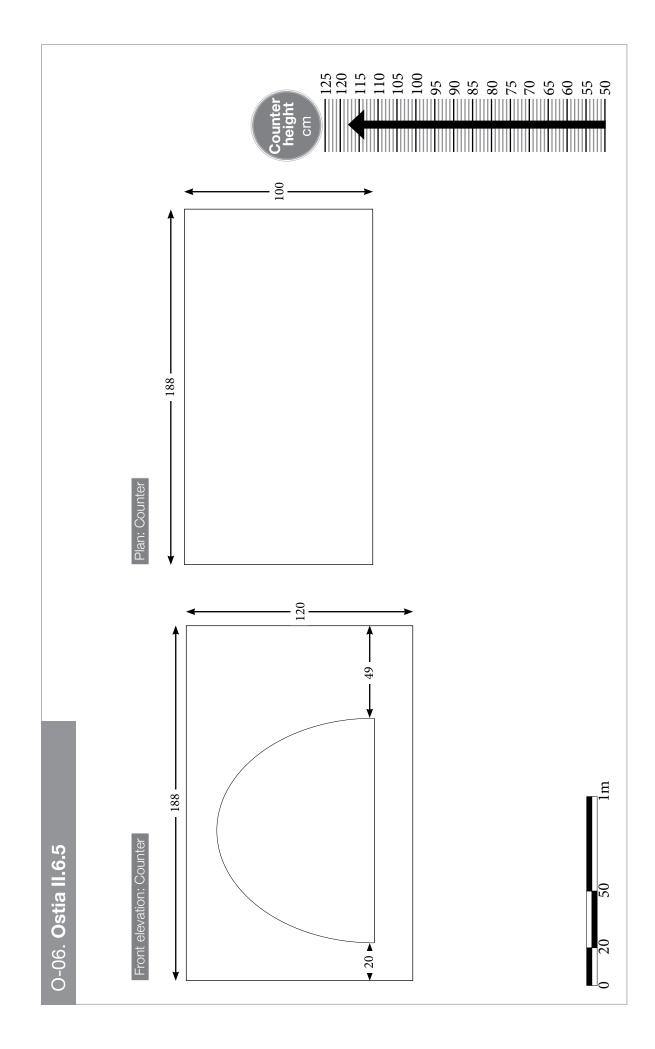
f. View from the bar room looking out onto the forum.



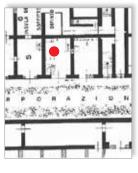
Bibliography
Hermansen, Ostia, 137-138.

a. Façade of bar.





O-06. Ostia II.6.5



Hermansen, Ostia, 147-148.

Bibliography



c. The I-shaped counter built against a wall.

b. Façade of bar.

a. Façade of bar.



f. View out from the rear of the bar room.



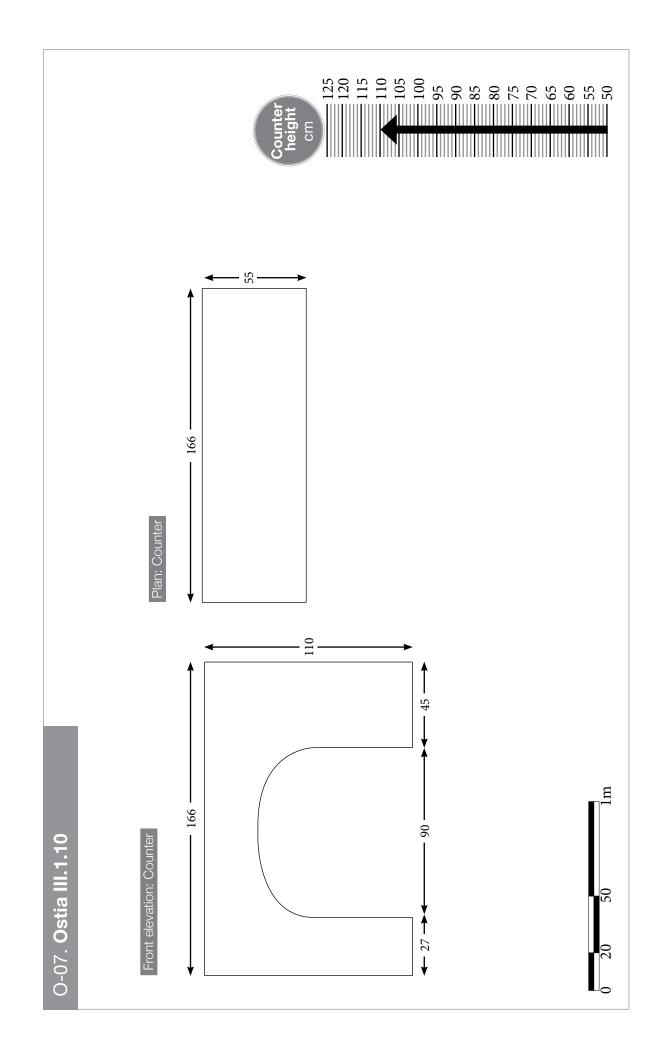
e. View into the bar room, the base of a staircase, right.







d. The counter with the remains of a hearth, right.





Hermansen, Ostia, 149-151. **Bibliography**



a. Façade of bar.



c. The I-shaped counter.



f. View from the rear of the bar room.

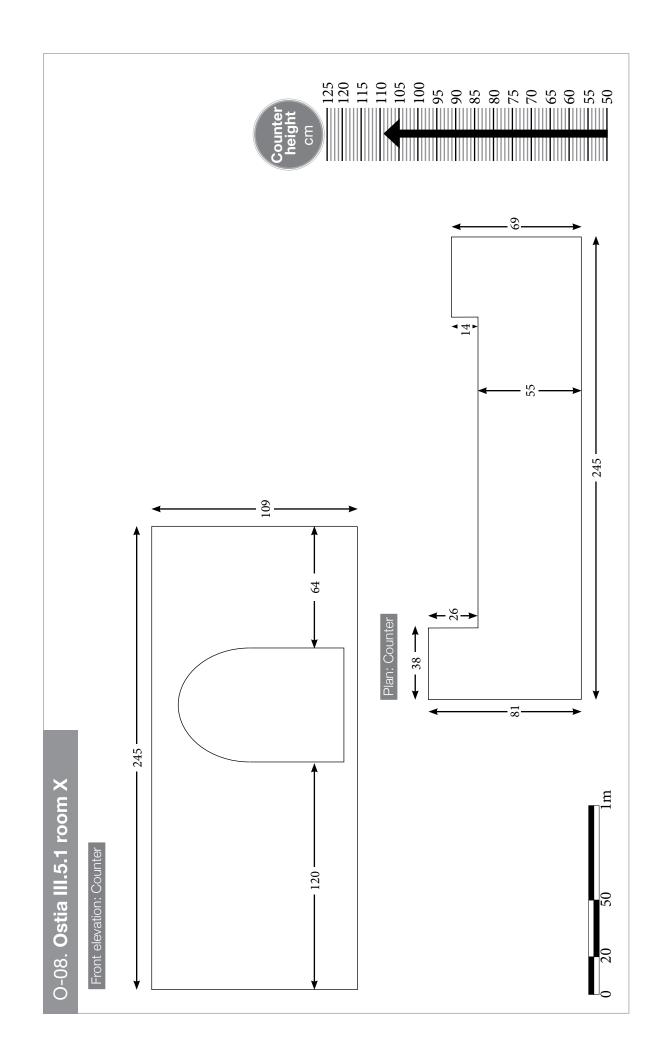


e. Remains of the marble basin.





d. The I-shaped counter.



O-08. Ostia III.5.1 room X



Bibliography

Felletti Maj, Le Pitture Delle Case Calza and Becatti, Ostia, 40. Hermansen, Ostia, 151-157. Meiggs, Roman Ostia, 246. Pavolini, Ostia. 153-156. Girri, La Taberna, 26. Delle Volte Dipinte.



a. Façade of bar.







d. The interior of the bar, second entrance, right and lacus.

e. The remains of painted wall decoration.

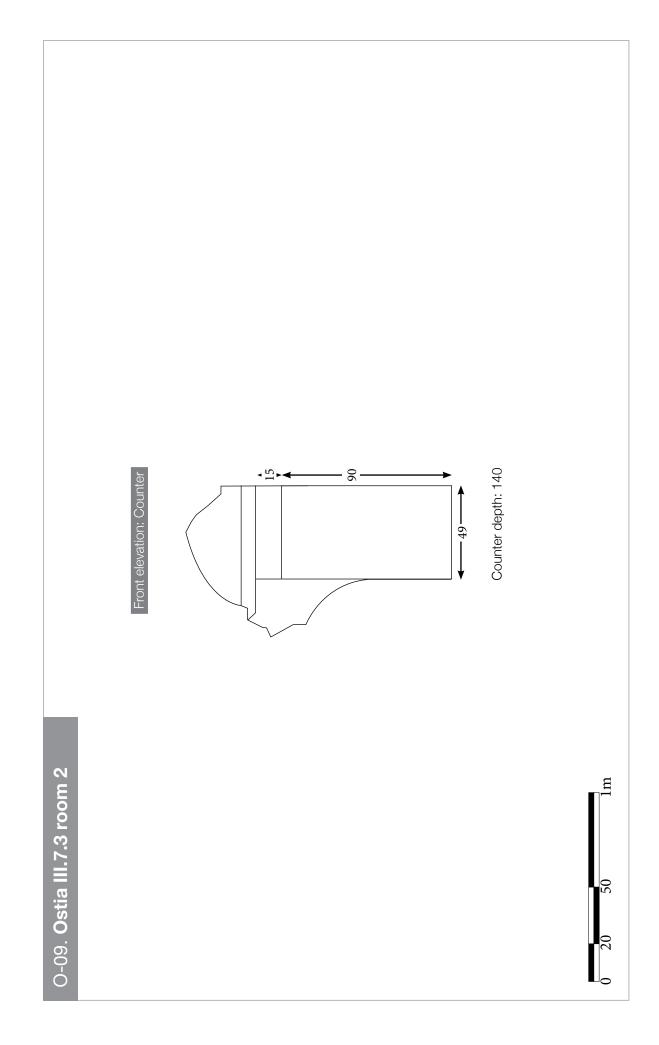


c. The counter with marble decoration.

b. The Front of the L-shaped counter.



f. The internal corridor of the building.



O-09. Ostia III.7.3 room 2



Bibliography

Girri, La Taberna, 26-27. Hermansen, Ostia, 157.



a. Façade of bar.



b. Façade of bar.

c. The remains of the I-shaped counter built against a wall.





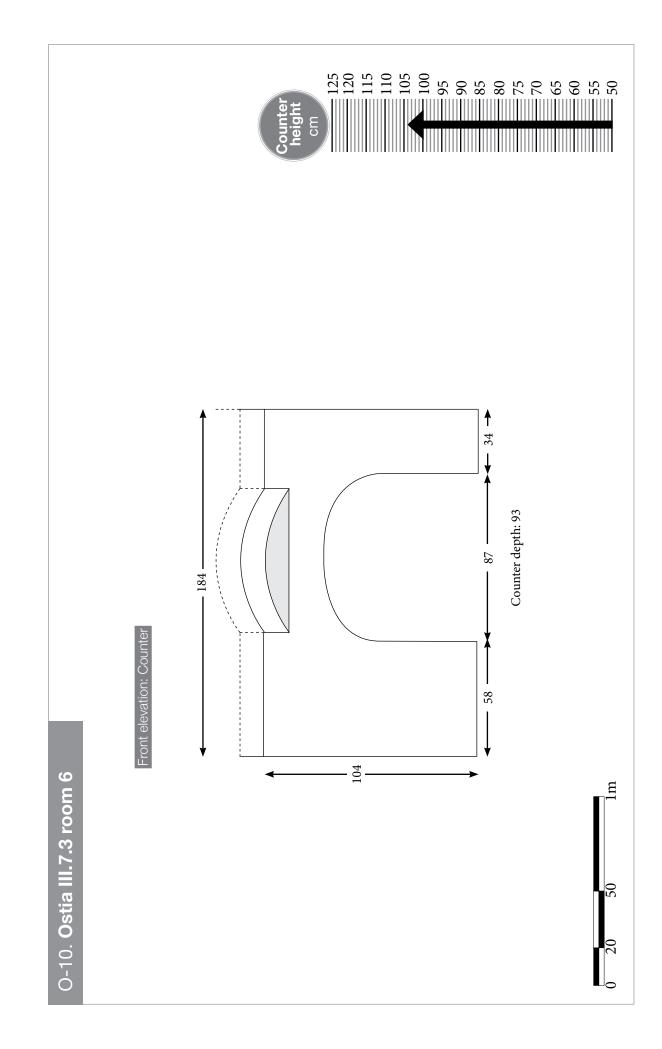
d. The remains of the I-shaped counter.



f. Looking towards the rear of the bar room.



e. The counter with the remains of marble decoration.



O-10. Ostia III.7.3 room 6



Bibliography

Girri, La Taberna, 26-27. Hermansen, Ostia, 157.



a. Façade of bar.





b. Façade of bar.



c. The I-shaped counter built against a wall.



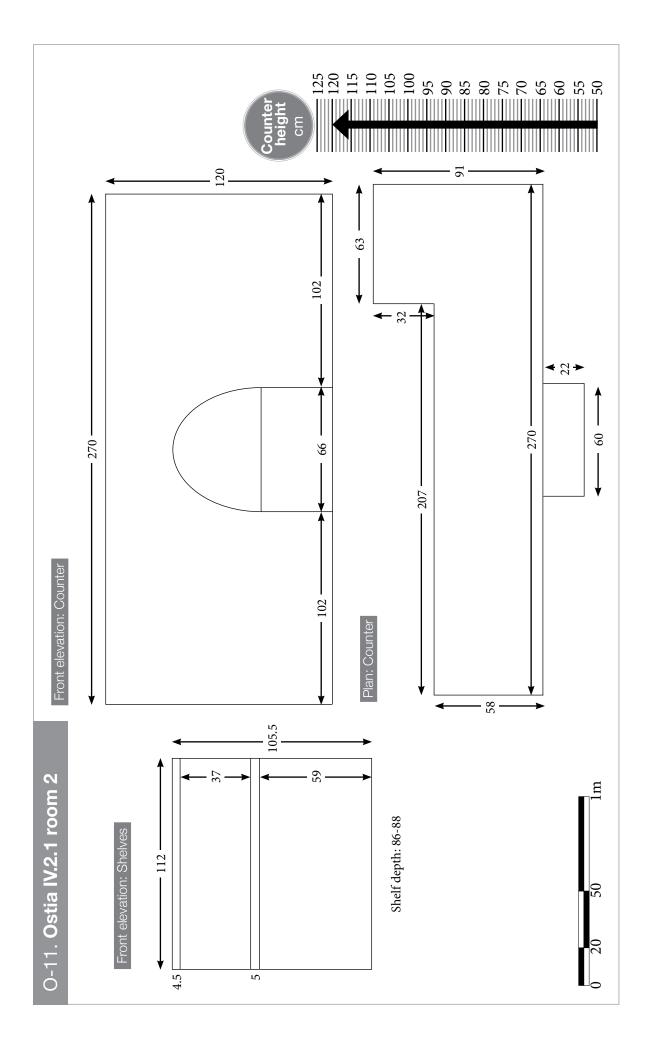
e. Looking out onto the Decumanus Maximus.

d. The counter with the remains of marble clad stepped shelves.





f. Looking towards the rear of the bar room.

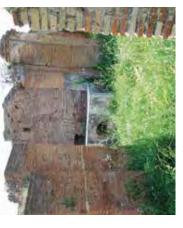


O-11. Ostia IV.2.1 room 2



Bibliography

Hermansen, Ostia, 162. Girri, La Taberna, 29.



a. Façade of bar.



b. Façade of bar.

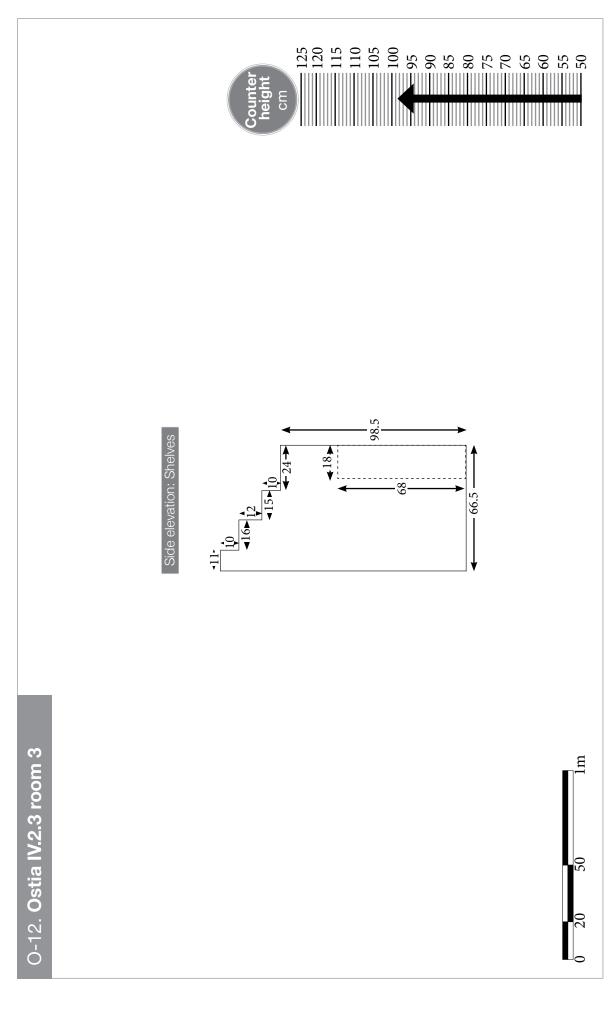
c. The L-shaped, marble-clad counter.



e. The storage shelves adjacent to the counter.



f. View into the bar from the entrance to the Terme del Faro.



O-12. Ostia IV.2.3 room 3



Hermansen, Ostia, 165-167. Girri, La Taberna, 29. **Bibliography**



a. Façade of bar.



b. Façade of bar.



d. The stepped shelves with water basin.

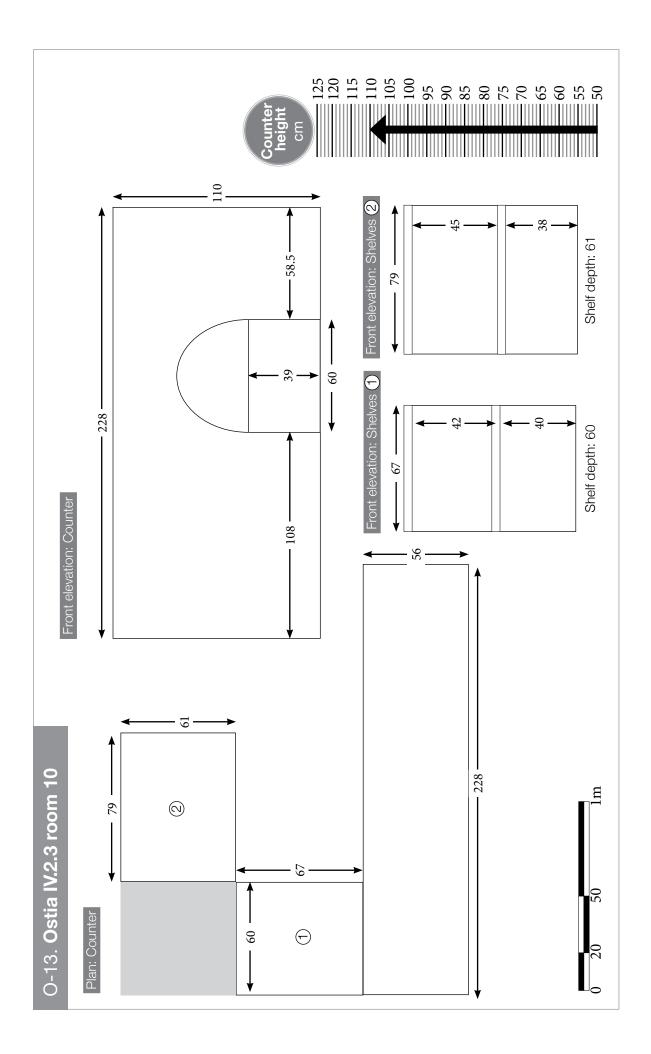
e. Side view of the stepped shelves.



c. The stepped shelves with water basin beside (right).



f. View into the rear of the bar room.



O-13. Ostia IV.2.3 room 10



Bibliography

Hermansen, Ostia, 163-164. Girri, La Taberna, 29.



a. The portico with entrance to the bar, left.

b. Façade of bar.





d. The mosaic floor, now covered by grass.

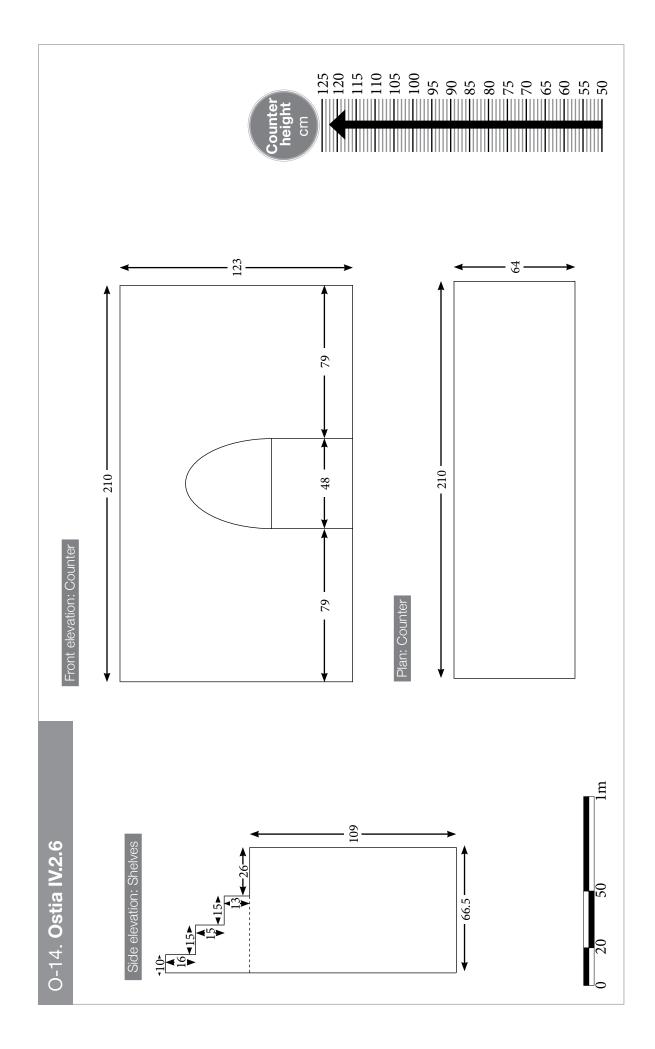


c. The marble clad I-shaped counter.



f. The two shelving units.

e. Interior view of working area.



0-14. Ostia IV.2.6



Bibliography

Stöger, Rethinking Ostia, 117-123. Hermansen, Ostia, 167-169. Calza and Becatti, Ostia, 49. Girri, La Taberna, 29-30. Pavolini, Ostia. 203-206.



a. View from the front of the building.





b. The I-shaped counter with painted decoration.

c. The top of the basin with painted decoration.



f. The latrine.

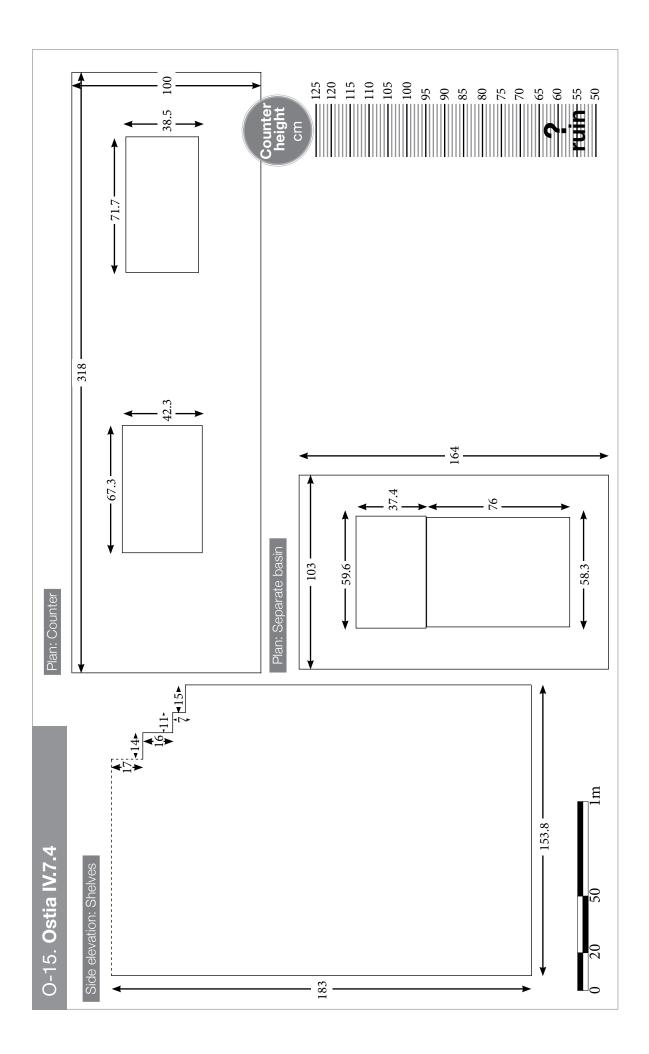


e. The wall decoration in the small room off of the bar room.

d. The stepped shelves behind the

counter.





0-15. Ostia IV.7.4



Bibliography

Jones, "The pancratiasts," 293-98. Hermansen, Ostia, 171-175. Calza and Becatti, Ostia, 42. Pavolini, Ostia. 186-187. Girri, La Taberna, 32.



a. Façade of bar.





b. Façade of bar.



e. The remains of the hearth and stepped shelves, right.

d. The I-shaped counter with two basins.



c. The bar room with fountain/basin and service area behind.

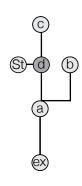


f. The central fountain/basin.

APPENDIX 2 — SPACE SYNTAX

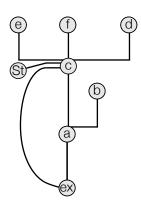
App. 2-1

Case study 2: V.2.13 Pompeii							
Space	Node	MD	RA	CV			
Exterior	0	2.16	0.46	0.25			
Bar room (a)	1	1.33	0.13	3			
Back room (b)	2	2.16	0.46	0.25			
Corridor (c)	3	1.83	0.33	1.25			
Kitchen (d)	4	2.66	0.66	0.5			
Stairs (e)	St	2.66	0.66	1.25			
Up1 (f)	U1			0.5			



App. 2-2

Case study 3: IX.9.8 Pompeii						
Space	Node	MD	RA	CV		
Exterior	0	1.67	0.27	0.53		
Bar room (a)	1	1.5	0.2	1.7		
Back room (b)	2	2.33	0.53	0.33		
Corridor (c)	3	1.17	0.07	3.83		
Back room (d)	4	2	0.4	0.2		
Back room (e)	5	2	0.4	0.2		
Back room (f)	6	2	0.4	0.2		



App. 2-3

Case study 5: IV.15-16 Herculaneum						
Space	Node	MD	RA	CV		
Exterior	0	2.33	0.53	0.33		
Bar room (a)	1	1.5	0.2	2		
Back room (b)	2	1.67	0.27	1.83		
Back room (c)	3	2.5	0.6	0.5		
Back room (d)	4	1.67	0.27	1.83		
Back room (e)	5	2.5	0.6	0.5		
House	Н	1.83	0.33	1		

