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ESTUDIOS / STUDIES

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## Urban dining rooms in Lusitania: a metrological and morphological approach

### *Comedores urbanos en Lusitania: una aproximación metroológica y morfológica*

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#### ABSTRACT

This study aims to characterise the urban dining rooms located in the province of Lusitania from a metrological and morphological point of view. The studied examples were identified in the cities of *Conimbriga* (Condeixa-a-Velha), *Capera* (Cáparra), *Augusta Emerita* (Mérida), and *Mirobriga* (Santiago do Cacém) and were built between the 1<sup>st</sup> and the 3<sup>rd</sup> century CE. The conducted analyses demonstrated the existence of a certain hierarchy in room dimensions, with widths being more homogeneous. This led to the definition of four size clusters, that have a more heterogeneous set of lengths associated, suggesting greater importance of room width, possibly related to the placement of the couches. The existence of relatively standardised size clusters, as well as the presence of several dining rooms in the same house, suggest a relationship between size and functional character, as well as the existence of established rules for the sizing of certain spaces.

*Key words:* *triclinium; cenatio; convivium; domus;* Roman architecture; Hispania.

#### RESUMEN

Este estudio tuvo como objetivo caracterizar, desde el punto de vista metroológico y morfológico, los comedores urbanos ubicados en la provincia de Lusitania, habiendo abordado los ejemplos identificados en las ciudades de *Conimbriga* (Condeixa-a-Velha), *Capera* (Cáparra), *Augusta Emerita* (Mérida) y *Mirobriga* (Santiago do Cacém), que fueron construidos en orden cronológico entre el siglo I d. C. y el siglo III d. C. El conjunto de análisis demostró la existencia de una cierta jerarquía en las medidas de las habitaciones, habiendo verificado que las medidas de ancho son más homogéneas, permitiendo formar 4 grupos de tamaños, a los que se asocia un conjunto de medidas de largo más heterogéneo, y sugiriendo una mayor importancia de la medida del ancho, posiblemente relacionada con la colocación de los *lecti*. La existencia de grupos de tamaño relativamente estandarizados, así como la presencia de varios comedores en una misma casa, sugiere la existencia de una relación entre tamaño y carácter funcional, así como la existencia de reglas establecidas para el dimensionamiento de determinados espacios.

*Palabras clave:* *triclinium; cenatio; convivium; domus;* arquitectura romana; Hispania.

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## 1. INTRODUCTION

This work is a morphological and metrological study of the spaces identified as *triclinia* in four cities of Lusitania, *Conimbriga* (Condeixa-a-Velha), *Capera* (Cáparra), *Augusta Emerita* (Mérida), and *Mirobriga* (Santiago do Cacém), these being the urban centres that best represent the dining rooms of this provincial space, both due to the number of examples available for study and to their geographical distribution (Fig. 1).

Holding large social meals, in familiar, clientelist, or associative contexts, was an important element of socialization of daily life in Roman times, reflected, at least in the case of middle- and high-ranking families, in the way in which their dwellings were designed (Dunbabin 2003: 2 and 39-41).

In the Iberian Peninsula, rooms for holding banquets have been known since the 2<sup>nd</sup> c. BCE, mainly in residential buildings at the *Neapolis* of *Emporion*. These

spaces, identifiable as *androi*, show markedly Hellenic morphological characteristics and proportions (Olmos 1995: 52-55; Mar & Ruiz de Arbulo 1993: 364-376). This reflects the specificities of the furniture of Hellenic tradition, its arrangement being distinct from their Roman counterparts (Dunbabin 1998; Morvillez 2005; Uribe Agudo 2013: 23-27).

However, these spaces, which were part of a Hellenized cultural matrix that, in *Emporion*, persisted until the Julio-Claudian period (Olmos 1985: 52), would not constitute a direct antecedent of the Roman dining rooms found in most of the Peninsular space (Uribe Agudo 2013: 23-27). These are thought to be direct adoptions of the Roman model and, as such, are bound to reflect different social conducts and specificities of design. Spaces of Roman tradition designed for holding the *convivium* would accommodate the characteristic eating furniture, the *lecti triclinares*, typically arranged in a “U” shape. These would initially reflect a strict moral conduct

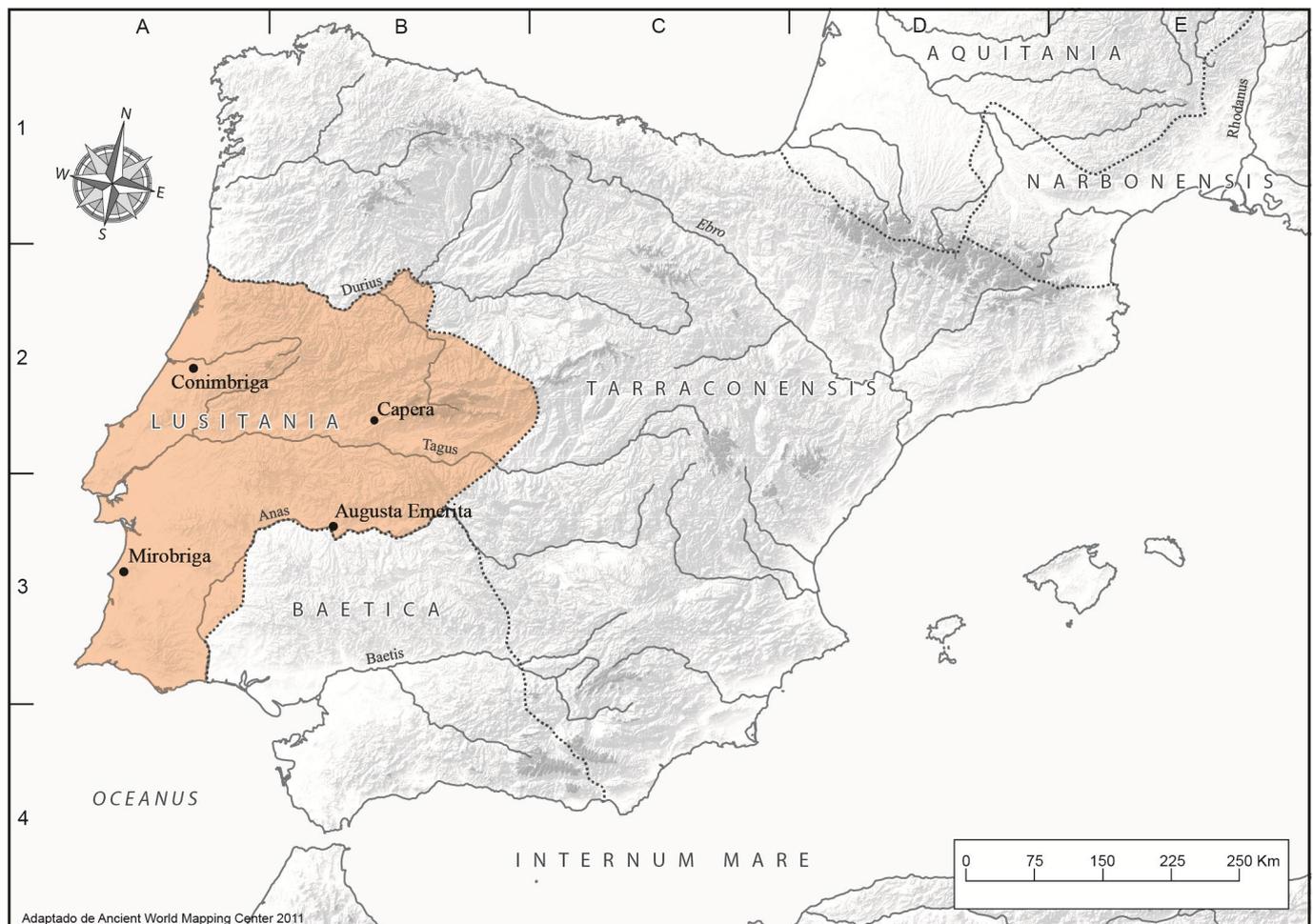


Figure 1. Map of the IP showing Lusitania and the location of the cities under analysis (own work. Base map adapted from Ancient World Mapping Center).

regarding the number of attendants and their designated seats, according to social status. However both the rooms and their associated norms seem to have evolved under the Empire, as dining rooms grew larger, with consequent changes in the spacing and layout of the couches (Dunbabin 1998: 92)

Besides these purposely designed dining rooms, meals could also take place in various indoor or outdoor spaces prepared for the occasion, giving rise to the distinction between 'dining areas' and 'dining rooms' (Foss 1994: 105; Uribe Agudo 2009: 154).

Textual sources use different names for these spaces, namely *triclinium*, *cenatio*, *oecus*, *cenaculum*, or even *tablinum*, but often do not provide a description that might clarify whether these terms were synonymous or what the differentiating characteristics might be (Uribe Agudo 2013: 20). On the other hand, some designations seem to relate to the dimensions of the rooms - *cenatio*; *cenatiuncula* - or to have a qualitative value - *cenatio modica* (Plin. Ep. 2.17.10); *cenatio cotidiana* (Plin. Ep. 5.6.21); *cenatio mica* (Mart. 2. 59) (Foss 1994: 85-88).

Vitruvius sustains the ideal proportion of a length that doubled the width, while also providing prescriptions regarding their solar orientation (Vit. VI, III, 8), concerning use according to the seasons - *hibernum triclinium* (Vit. VI, IV, 1), *triclinium vernum*, *triclinium autumnalium* and *triclinium aestivum* (Vit. VI, IV, 2).

According to the testimony of *Marcius Servius Honoratus* (Serv. A. 1.698), in the 4<sup>th</sup> c. CE the term *triclinium* lost its literal value since it continued to be used even in contexts where it supposedly was not applicable, as in the case of dining rooms equipped with a *stibadium*, which had only one piece of furniture of semi-circular shape. In these cases, according to the same source, the most correct terminology for this type of room would be *cenatio* or *basilica* (Foss 1994: 86).

Roman iconographic sources start representing banqueting scenes from 1<sup>st</sup> the century BC to 5<sup>th</sup> c. CE, attesting to the enduring significance of these social practices. Apart from the occasional drapery or clearly idealised scenery, little is shown of the rooms where these banquets were held. These representations come mainly from funerary or domestic contexts, and in the form of stone reliefs, mosaics, and pictorial depictions; and while the first two come from diverse geographical and chronological backgrounds, the latter come essentially from Vesuvian sites affected by the eruption of 79 CE (Dunbabin 2003: 4-5).

Commonly, crockery for drinks and foodstuffs is seen in small tables placed in front of the reclined diners; in secondary tables, or placed over heating devices both of which are located in the anteroom of the banqueting scene (Dunbabin 2003: 55, fig. 26; 71, plate XII).

As is observed in these representations, holding meals in these spaces would require specific furniture, implying that such rooms must have appropriate dimensions for placing the couches where people would lie down/recline, and also to fit other types of furniture like boilers for heating food and drinks.

Taking this into consideration, this study aims at characterising and comparing the dimensions of *triclinia* documented in the urban dwellings of *Lusitania*, in an attempt to identify which dimensions would be characteristic or appropriate for these spaces in this provincial space.

## 2. IDENTIFYING THE DINING ROOMS

The spaces interpreted as having this function are generally located in the central axis of the house, with a large opening onto a peristyle or garden space (Farrar 2013: 15-19), and feature dimensions that distinguish them from the remaining spaces. This distinction is seen as a reflection of their importance, consequently identifying them as spaces of representation, usually due to their architectural features and decorative quality.

In some cases, parietal or floor decoration was used to distinguish two areas: an entrance or reception area and the space in which the banqueting itself would take place (Guiral Pelegrín & Mostalac Carrillo 1993; Dunbabin 2003: 41-42; Uribe Agudo 2009: 155; Correia 2013: 187-188). In these cases, approximately 2/3 of the space was dedicated to the placement of the *lecti triclinares*, while the remaining 1/3 was allocated to the entrance or reception area (Uribe Agudo 2009: 155; Guiral Pelegrín 2018: 621). This distribution is noticeable in terms of the mosaic floors designed for these spaces, particularly in the "T + U" configuration, the "U" being reserved for the placement of *lecti* around a central carpet (Dunbabin 2003: 41-42; Uribe Agudo 2009: 156-158; Correia 2013: 261-262). The remaining area, near the entrance, would be reserved for the circulation of the servants attending the banquet, but also for the placement of support furniture, namely boilers or braziers for heating food and drinks, as evidenced by several representations, such

as the fresco of the *triclinium* of the *Casa dei Casti Amanti* in Pompeii or the mosaic of the *triclinium* of the House of Orpheus in Sepphoris (Dunbabin 2003: 55, 166 and 167).

In the Vesuvian area, for example, some rooms present niches dug in the walls<sup>3</sup>, made to fit the furniture, namely beds (Mols 2020: 38) and *triclinium lecti* (Mols 2008: 155). This architectural feature immediately tells us what the function of the room was at a given time.

The presence of these niches, however, is not common and suggests that the rooms had to be adapted to the furniture. This further suggests that the furniture size was somewhat standardized (Mols 2020: 38), or that a specific size was commonly desired<sup>4</sup>.

Simultaneously, this could also imply that these rooms were not originally meant to be dining rooms, hence their adaptation to fit the *lecti*.<sup>5</sup>

On the whole, this suggests that the dining rooms had specific architectonic features and a layout that required a minimum size for functioning properly.

The existence of a relationship between the dimensions and function of dining rooms has already been proposed by Éric Morvillez (1996 and 2005) and Katherine Dunbabin (1998), in their works on room dimensions and the respective mosaic carpets, suggesting their suitability for certain types of *lecti* and, consequently, for different convivial contexts. Regarding the Peninsular area, María Pilar Galve Izquierdo has also observed similarities in the dimensions of some *triclinia* of Celsa (*Casa de la Tortuga* and *Casa del Emblema*) and the *opus signinum* pavement of the Pamplona Archdeaconry (Pompaelo) (Galve Izquierdo 1996: fig. 103 *apud* Uribe Agudo 2009: 158). Likewise, Virgilio H. Correia has associated some of the dining rooms in *Conimbriga*, which feature a distinct mosaic layout, with a different social context of use (Correia 2013: 265).

We have focused only on the sizing of the rooms themselves as their arrangement constitutes a separate line of inquiry that largely exceeds the scope of this paper.

### 3. THE METROLOGICAL ANALYSIS OF DINING ROOMS

#### 3.1. Methodological framework

The theoretical analysis of Ancient Architecture has a long and eventful history, with different approaches, both arithmetical and geometrical, sometimes leading to inconclusive results. Nevertheless, in the last few decades, the generalised consensus as to the importance of using coeval units of measurement when analysing the formal and mathematical principles of Roman architectural design has produced some interesting results and revealed the occurrence of patterns and rules that should not be ignored (Jones 1989 and 2000: 1-7; DeLaine 1993: 75-76).

These include the proposition of building designs using a regular or modular organisation and division of spaces (e.g., Jacobson 1986; Jones 1989 and 2000; Barresi 2008) including some studies in Lusitania (Pinho & Xavier 2013; Sousa 2019). These are based on the premise that building or room design would be achieved by using an evenly spaced (modular) grid using a primary dimension, preferably a round number of feet, to determine the basic outline and main subdivisions of space, as well as a purposeful sizing and proportion of specific rooms.

The different studies have proposed the use of distinct modules, ranging from 12.5 or 25 ft in an imperial complex (Jacobson 1986) to 5 and 7 ft in more modest buildings (Pinho & Xavier 2013; Sousa 2019: 76-92; Sousa & Felício 2022). Some examples of modules established in punic feet have also been found (Barresi 2008).

The basis for analysing a building or a room's design lies in its detailed survey and measuring. However, the place where the measurements are taken, as observed by Friedrich Rakob, can influence the understanding of the project. The author placed several hypotheses: the measures can be taken in the face of the finishing; the surface of the bare wall; in the projection of the foundation or the distances between the axes of the walls<sup>6</sup>.

In this regard, Mark Wilson Jones has observed that, when the measures were taken from the face of

<sup>3</sup> This happens, for example, in the *triclinium* of *Casa del Gran Portale*, in Herculaneum, and *Casa del Cinghiale*, in Pompeii (Mols 2008: fig. 17).

<sup>4</sup> This idea is backed by the study of the preserved furniture from Herculaneum (De Carolis 2007; Mols 2020).

<sup>5</sup> This is the case of *Casa del Gran Portale*, in Herculaneum, which was restructured after the earthquake of 62 AD, where the *triclinium* was fashioned from a previous representation room (Dardenay 2021: 110-112).

<sup>6</sup> Rakob (1984) *apud* DeLaine (1993: 69).

decoration or finishing, a more coherent data set was obtained (Jones 1989: 112-114).

However, the values obtained should be looked at carefully. The construction process of a building is complex and involves several parties, resulting in a wide window of opportunity for the occurrence of errors or deviations from the initial project. Consequently, any analysis aimed at reconstituting or understanding these processes becomes an essay with a certain degree of subjectivity, necessarily debatable. Likewise, the levels of accuracy that one may try to diagnose regarding the placement and thickness of walls or other constructive elements may vary considerably between buildings and even within the same building. Hence, it is difficult to establish tolerance levels for this type of error (Jones 2000: 71).

Moreover, when dealing with ancient buildings, post-depositional processes should also be considered, e.g., agricultural activities, steep slopes and/or sedimentation, and land movement over the centuries, which exert pressure on the structures, deforming them and constraining their reading from a metrological point of view.

### 3.2. The present study

Our study sample consists of several rooms identified in the bibliography as dining rooms - *triclinia*, *cenationes*, and *oeci* - or spaces of representation, and were selected and approached according to a principle of chronological and typological coherence, focusing on those intended for the use of *lecti triclinares*, with chronologies between the 1<sup>st</sup> and 3<sup>rd</sup> c. CE. The dining rooms equipped with an apse were excluded since they may correspond to the use of *stibadia*. This type of room and its furniture, dominant from the 3<sup>rd</sup> c. CE onwards, has a semicircular morphology, constituting a distinct typology that should be addressed independently (Morvillez 1996: 119; Bowes 2012: 54-60).

As to the rooms presented here, since there is still some uncertainty regarding the Latin terminology used for each type of dining space, and which descriptors were used by the various authors when applying one or the other designation, in this work we have chosen the designation 'dining room', using the terms *triclinium*, or *oecus* only as a reference to the designations used within the cited bibliography.

In understanding ancient design, it is deemed fundamental to convert the measurements obtained in modern surveys, recorded with the metrical system, into the

units that would have been used for the building's design. Most authors accept that the value of the roman foot should lie in the range of 29.4 to 29.7 cm (DeLaine 1993: 69-71; Jones 2000: 72), although its precise figure within that range seems to be unimportant in the larger picture since it was unlikely used to this degree of accuracy, at least in most construction activities (DeLaine 1993: 71-73). In this study, for normalisation purposes, we opted to use a foot of 29.63 cm, following the values estimated by Simone Cardullo (2016: 23-27).

Regarding the metric data presented herein, some were acquired through field surveys conducted by the authors, namely, at the *Casa de Cantaber*, *Casa dos Repuxos*, *Casa da Cruz Suástica*, and *Casa dos Esqueletos*, in *Conimbriga*, and *Casa da Calçada*, *Casa dos Frescos*, and *Casa da Hospedaria*, in *Mirobriga*; the remainder were based on the published floorplans.

The field surveys consisted simply in taking several width and length measurements in each room in order to assess the most frequent value of each measure, which we considered the probable intended measure by the architect.

Apart from two buildings<sup>7</sup>, most of our samples didn't have their finishing layers preserved. As a result, the measurements obtained from the bare walls are necessarily larger than the original dimensions of the rooms.

The converted figures thus obtained were clustered by the proximity of value, the width measurements showing the lowest variability and being quite coherent within certain sets. Therefore, this value stood out as the base reference for the definition of size clusters.

In some cases, it was difficult to ascertain the width from the length of the rooms due to the position of the room in relation to the whole floorplan. Thus, and considering the typical morphology of this type of room, we considered the width to be the dimension corresponding to the position of the *lecti*, which in some cases was indicated by the presence of mosaics and in others by the layout of the room itself.

As was previously discussed, the analysis of metrical data presents some problems. In fact, the analysis of the remains discussed herein raised some difficulties regarding the interpretation of the documented measurements. Several possible deviations from the presumably planned dimensions, both by excess and by

<sup>7</sup> *Casa dos Repuxos*, in *Conimbriga* and *Casa dos Frescos*, in *Mirobriga*.

defect, have been identified. These can be related either to the construction process and/or to post-depositional processes.

So, to reach a more reliable assessment of the trend width value, the mean and median values of the recorded measurements were calculated, ultimately allowing to dilute potential errors in trying to determine the intended dimensions in terms of the construction project.

We then used the greatest common divisor (GCD) between the trend values of the widths and the intended lengths to determine the most plausible module used for calculating the spaces.

We would point out that the conversion of the measurements gauged from the published graphic scales into a numeric record may involve discrepancies of a few centimetres. However, the coherence of the set of data under analysis indicates that this is not significant and does not invalidate the study presented in this paper.

#### 4. CONIMBRIGA

Twelve dining rooms have been documented in this city (Correia 2013). The identification of this type of room is relatively reliable in many cases due to the *opus tessellatum* or *opus signinum* markings for the placement of *lecti* on the pavements. In other cases, it is suggested by the dimensions and layout of the rooms.

The premise that the representational rooms are situated on an axial arrangement in relation to the centre of the house, presiding over gardened spaces or refreshed through water displays and reflecting pools, has a clear correspondence in *Conimbriga*, including the existing secondary dining rooms, either at the *Casa de Cantaber* or the *Casa dos Repuxos*<sup>8</sup>. Although they are also situated in smaller axialised areas, the architectural treatment of these peristyles reveals a similar care in the scenography, intended to be visualised from the dining room (Fig. 2).

Two other dining rooms were also documented in *Conimbriga*, which are not located in residential buildings. One of them is situated in the *Edifício das Latrinas do Forum* and is part of a set consisting of a succession of three compartments, the last of which

features a pavement in *opus signinum* displaying the demarcation of an area intended for the placement of *lecti*. The second one is situated in *Edifício Oeste da Zona C*, a building only partially known. It also displays a configuration with a succession of three compartments, one of which features a marking on the *opus signinum* pavement defining a “U”-shaped area for the placement of *lecti*. Buildings with this type of structuring are not uncommon in *Conimbriga*. It has been suggested that these buildings could be *scholae* or the *sedes* of *collegia* based on their layout (Correia 2016).

Regarding the chronology of the buildings where dining rooms have been identified, the oldest are the *Insula do Aqueduto*, from the early 1<sup>st</sup> c. CE (Correia 2013: 131) and *the Casa do Medianum Absidado*, pre-dating the mid-1<sup>st</sup> c. CE (Correia 2013: 92), while the majority date from the Flavian period and early 2<sup>nd</sup> c. CE, namely *Casa de Cantaber* (Correia 2001: 123; 2013: 101), *Casa dos Repuxos*, which has a previous phase that will not be discussed here (Correia 2013: 154-156), *Casa dos Esqueletos* (Correia 2013: 171) and the *Edifício da Latrinas do Forum* (Correia 2013: 118). The most recent building is *Casa da Cruz Suástica* which, although also built in the 1<sup>st</sup> c. CE, was redesigned in the 3<sup>rd</sup> c. CE, resulting in its final appearance (Alarcão 2010: 28-45; Correia 2013: 166). No chronological data are currently available for the *Edifício Oeste da Zona C* (Correia 2013: 124-125).

The identified dining rooms feature considerably different scales, and three different sizes can immediately be observed in houses with several dining rooms, such as *Casa de Cantaber* and *Casa dos Repuxos* (Tab. 1).

The larger rooms, identified as *oeci triclinia* (Correia 2013: 153, 260-262), have been documented in *Casas de Cantaber*, *Repuxos*, *Suásticas*, and *Esqueletos* and measure between 716 and 780 cm in width and between 940 and 1335 cm in length.

The rooms with intermediate dimensions have been identified as either *triclinia* or *cenationes*. The latter designation was attributed to Room 6 of *Casa de Cantaber* and Room 29 of *Casa dos Repuxos* (Correia 2013: 140 and 265), measuring 630 cm in width by 910 cm in length and 610 cm in width by 810 cm in length, respectively. The latter also displays an interesting feature in terms of its construction technique, which consists in the construction of two brick walls flush against the south and east walls of the room,

<sup>8</sup> Also published under the designation *Maison aux jets d'eau* (Morand 1996).

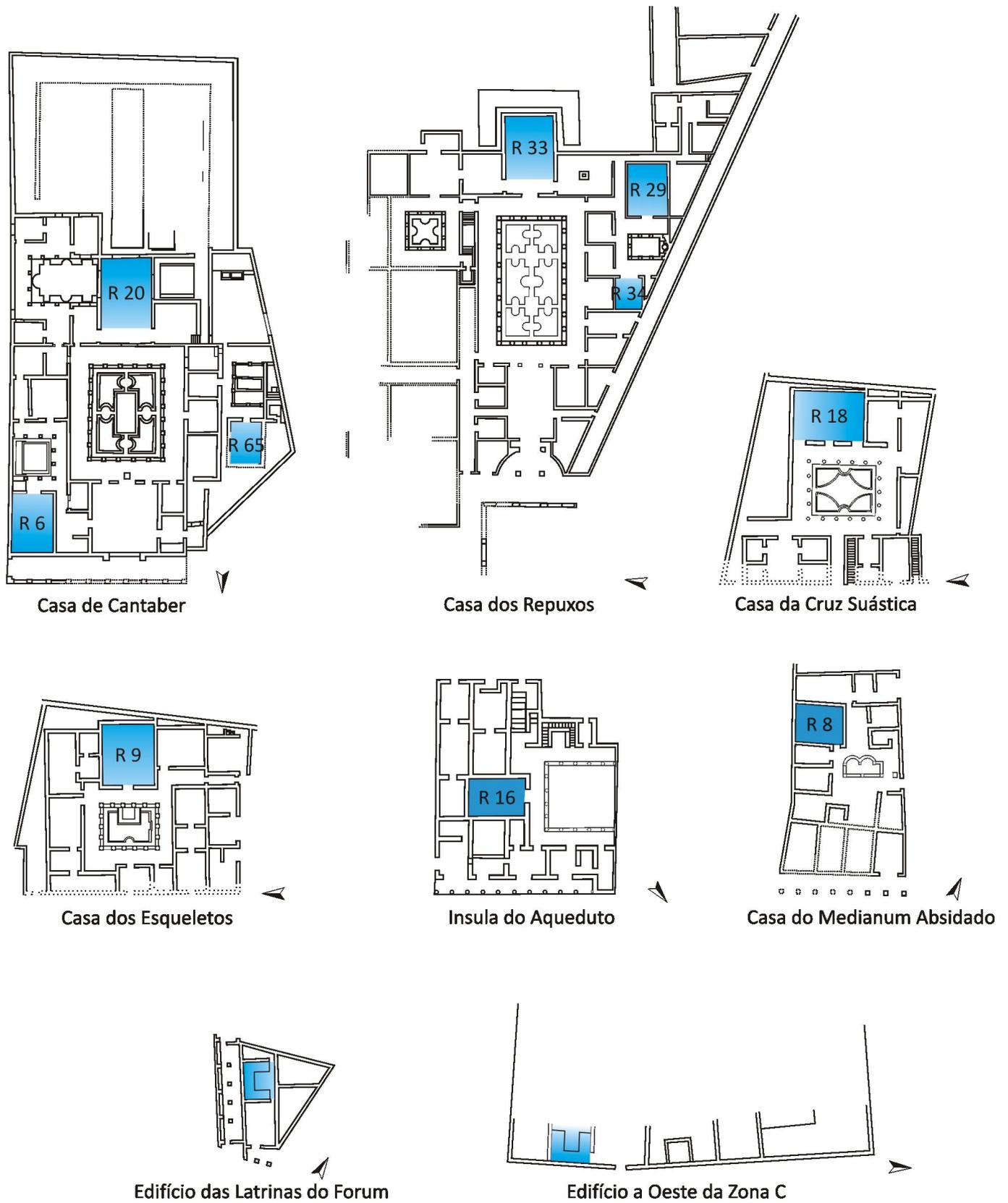


Figure 2. The *Conimbriga* buildings analysed in this paper and the respective dining rooms identified therein (all floorplans adapted from Correia 2013: figs. 59, 71, 78, 84, 55, 28, 48-49, 53).

Conimbriga				Width		Length		
Building	Chronology	Room designation	Published interpretation	Basis of interpretation	cm	feet (29,63)	cm	feet (29,63)
Casa de Cantaber	Flavian (69 – 96 CE)	Room 20	<i>Oecus Triclinium</i>	size and layout	770	25,98	1335	45,05
		Room 6	<i>Cenatio</i>	size and layout	646	21,8	942	31,79
		Room 65	<i>Cenatio</i>	size and layout	420	14,17	620	20,92
Casa dos Repuxos (Phase 2)	Hadrian (117 – 138 CE)	Room 33	<i>Oecus Triclinium</i>	size, layout and mosaic	716	24,16	1167	39,38
		Room 29	<i>Cenatio</i>	size, layout and mosaic	610	20,58	792	26,72
		Room 34	<i>Cenatio</i>	size, layout and mosaic	403	13,61	466	15,72
Casa da Cruz Suástica	3rd c. CE	Room 18	<i>Triclinium</i>	size, layout and mosaic	744	25,11	1078	36,38
Casa dos Esqueletos	end 1st / beg. 2nd c. CE	Room 9	<i>Triclinium</i>	size, layout and mosaic	780	26,32	940	31,72
Ed. Oeste da Zona C	no data	undesignated	<i>Triclinium</i>	pavement structure	620	20,92	no data	no data
Ed. Latrinas do Forum	beg. 2nd c. CE	undesignated	<i>Triclinium</i>	pavement structure	580	19,57	465	15,69
Insula do Aqueduto	beg. 1st c. CE	Room 16	<i>Oecus</i>	size and layout	575	19,41	875	29,63
Casa do Medianum Absidado	1st c. CE	Room 8	<i>Triclinium</i>	size and layout	590	19,91	730	24,63

Table 1. Data pertaining to the dining rooms identified in *Conimbriga* (own work).

with an apparent cladding function, a situation we shall address in the section dealing with the discussion of the data. In addition, the dining room identified at the *Edifício Oeste da Zona C* and considered a *triclinium* (Correia 2013: 125) also has similar width dimensions, at 620 cm, as do the *triclinium* of the *Edifício das Latrinas do Forum*, Room 16 of the *Insula do Aqueduto* and Room 8 of *Casa do Medianum Absidado*, although these are slightly smaller than the previously mentioned ones.

Two smaller rooms are also considered possible *cenationes* (Correia 2013: 139 and 154). These feature measurements of 403 cm in width and 466 cm in length in the case of Room 24 of *Casa dos Repuxos*, and, in the case of Room 65 of the *Casa de Cantaber*, a width of 420 cm, with a restored length of 620 cm<sup>9</sup>.

### 5. CAPERA

In *Capera*, the several excavations that took place since 1967 have led to the identification of three residential buildings: *Capera 1*, *Capera 2*, and *Capera 3* (Bejarano 2020: 110-114).

Of these, only *Capera 3* features a compartment identifiable as a dining room. The building was identified during the works carried out between 2009 and 2010 as part of the *Proyecto Via de la Plata II*, which focused on the *insula* to the south of the forum (Gijón 2013: 1461 and 1464).

Its construction took place between the end of the 2<sup>nd</sup> and the beginning of the 3<sup>rd</sup> c. CE; it was abandoned around 270 CE and reoccupied and transformed from

the end of the 4<sup>th</sup> c. CE onwards. One of the most evident transformations was the longitudinal subdivision of the *triclinium* through the construction of a wall, which also spanned the corridor of the peristyle (Gijón 2013: 1466 and fig. 2).

This house features two peristyles, a bigger one and a smaller one. The room identified as a possible *triclinium*

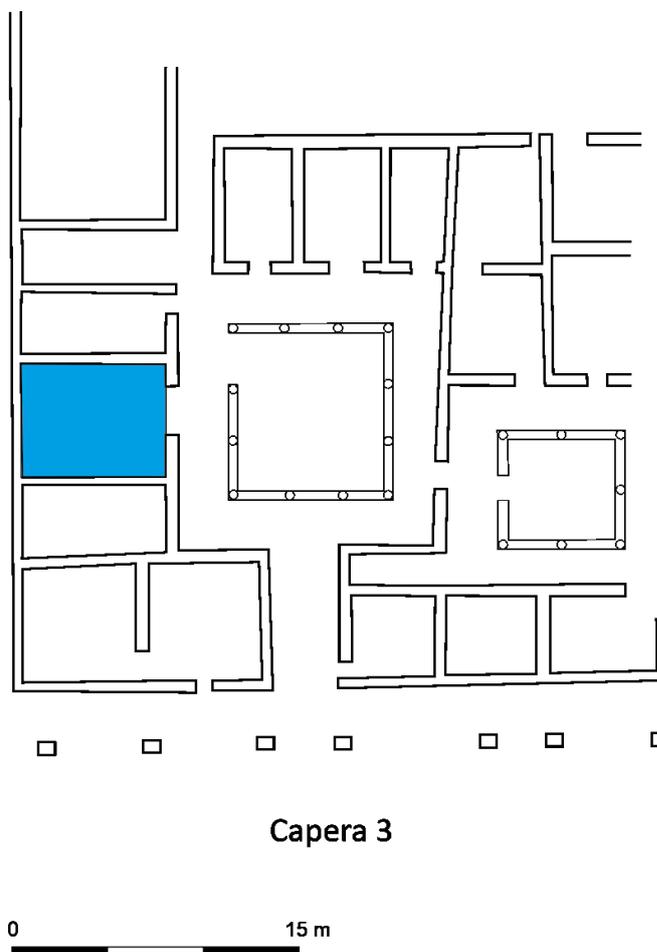


Figure 3. *Capera 3* building and the dining room identified therein (adapted from Gijón 2013: fig. 2).

<sup>9</sup> According to the plans published in Correia (2001 and 2013). The room is not completely exposed nowadays.

<i>Capera</i>					Width		Length	
Building	Chronology	Room designation	Published interpretation	Basis of interpretation	cm	feet (29,63)	cm	feet (29,63)
Capera 3	end 2nd / beg. 3rd c. CE	undesignated	<i>Triclinium</i>	size and layout	585	19,74	750	25,31

Table 2. Data pertaining to the dining room identified in *Capera* (own work).

is situated in the northeast corridor of the bigger peristyle (Fig. 3). This room, besides displaying an elaborated parietal decoration in relief, features distinctive dimensions (Tab. 2) that justify its interpretation as *triclinium* (Gijón 2013: 1466).

## 6. AUGUSTA EMERITA

The dining rooms that have been recognised in *Augusta Emerita* are relatively few compared to the number of identified domestic buildings (Corrales Álvarez 2016a: 217).

In fact, out of the 178 residential buildings inventoried (Corrales Álvarez 2016b), only sixteen rooms can be somewhat reliably interpreted as being linked to this function and allow this type of analysis. Amongst these, there are seven representational rooms or *triclinia* featuring apses. These were intended for a later style of *triclinium* furniture, the *stibadium* (Corrales Álvarez 2016a: 218-220), and for this reason not included in this work.

Nearly all of the nine studied examples are situated in an axial or semi-axial position with a scenic framing provided by a peristyle, the only exceptions being Room U of *Casa de Mitreo*, which is an inner room, the room found in *Casa de la Calle Pareja 32*, whose excavation area did not allow its position to be identified in the plan, and Room 29 / Room A' of *Casa del Anfiteatro* which, although it apparently faces an exterior space, is an area whose architectural structure is unknown because it has not been fully excavated (Fig. 4).

The oldest residential buildings are dated to the 1<sup>st</sup> and 2<sup>nd</sup> c. CE, namely *Casa del Mitreo*, from the 1<sup>st</sup> c. CE (Lequement 1977: 50 and Gijón 2002 *apud* Corrales Álvarez 2016b: 881), the *Casa de la Calle Pareja 32* (Barrientos 2000 *apud* Corrales Álvarez 2016b: 139) and *Casa Alcazaba 2*, both from the 2<sup>nd</sup> c. CE (Corrales Álvarez 2016b: 553). The grounds of the *Casa del Anfiteatro* probably featured a previous 1<sup>st</sup> c. CE construction of some kind, but it was demolished and replaced by another one, built in the 3<sup>rd</sup> c. CE (García 1966: 43; Hernández 1993: 778; Mateos 1995: 200 *apud* Corrales Álvarez 2016b: 836).

Dining rooms of different scales have also been identified in *Augusta Emerita* (Tab. 3). The largest, Room 29 / Room A' of *Casa del Anfiteatro* (Pizzo 2004: fig. 2; Corrales Álvarez 2016b: fig. 1005), corresponds to a large room (Tab. 3) surrounded by a corridor (Pizzo 2004: 344). This room has been the subject of various interpretations and has been referred to as a possible *tablinum* (García 1966: 26), *triclinium* (Balil 1976: 90), or *oecus* (Sánchez & Nodar 1999: 371), although the “T + U” shaped structure of its mosaic pavement indicates that it is a dining room, commonly identifiable as *triclinium* (Corrales Álvarez 2016a: 217). It is the only exemplar with these dimensions ever found in the city and present in this sample.

The rooms with intermediate dimensions feature widths varying between ca. 715 cm and 770 cm, and even more variable lengths, between ca. 420 cm and 1355 cm. They are represented by Room R of the *Casa del Mitreo*, Room E of the *Casa Alcazaba 2*, and the *Salón* of the *Casa Morería 6*, corresponding to a room of large dimensions, similar to those commonly interpreted as *triclinium* or *oecus* (Alba 2011: fig. 3 *apud* Corrales Álvarez 2016b: 359).

Two other spaces may be classified as intermediate in size, but are slightly smaller than those listed above. These correspond to the room identified at the *Casa da Calle Pareja 32*, interpreted as a possible *oecus* or *triclinium* on account of both its dimensions and decorative features (Barrientos Vera 2000: 229-232 *apud* Corrales Álvarez 2016b: 139-141), with a width of ca. 645 cm wide, but with an indeterminate length due to the state of preservation of the structure; and also, to Room 22/Room C from *Casa del Anfiteatro* (Pizzo 2004: fig. 2; Corrales Álvarez 2016b: fig. 1005) with a width of ca. 610 cm and a length of ca. 910 cm. This room is situated on the central axis of the house, aligned with the entrance *vestibulum* and at the centre of the peristyle, and has been considered a representational room (García 1966: 23 *apud* Corrales Álvarez 2016b: 836). A second opening was identified at the far end of this room. This opening was eventually walled up, but it originally extended the visual axis towards another part of the house, possibly an outside area. Although no mosaic pavement was found during the excavations, this



Figure 4. Buildings of *Augusta Emerita* analysed in this paper and the dining rooms identified therein (all floorplans adapted from Corrales Álvarez 2016b: figs. 158, 433, 681, 1005-1006, 1063-1064).

set of characteristics supports the interpretation of the room as a *triclinium aestivum* (Pizzo 2004: 343).

The smaller rooms correspond to the compartments identified as *triclinium* at *Casa Morería* 6 (Alba 2011: fig. 3 apud Corrales Álvarez 2016b: 359), to Room U of *Casa del Mitreo*, interpreted as a *triclinium aes-*

*tivum* (Corrales Álvarez 2016b: fig. 1063), and Room 23/Room D of *Casa del Anfiteatro*, also considered a *triclinium* on account of being paved by a high-quality mosaic known as “*mosaico del otoño*” [lit. Autumn mosaic] (Balil 1976: 88 apud Pizzo 2004: 343; Corrales Álvarez 2016b: fig. 1005).

Augusta Emerita					Width		Length	
Building	Chronology	Room designation	Published interpretation	Basis of interpretation	cm	feet (29,63)	cm	feet (29,63)
Casa Calle Pareja 32	1st c. CE	Undesignated	<i>Oecus / Triclinium</i>	size and wall decoration	645	21,76	no data	no data
Casa Moreria 6	no data	Salón	Salón	size and layout	770	25,98	1025	34,59
		<i>Triclinium</i>	<i>Triclinium</i>	size and layout	575	19,41	430	14,51
Casa Alcazaba 2	2nd c. CE	Room E	<i>Triclinium</i>	size and layout	740	24,97	1355	45,73
Casa del Anfiteatro	3rd c. CE	Room 29/Room A'	<i>Oecus/Triclinium/Tablinum</i>	size, layout and mosaic	1020	34,42	1350	45,56
		Room 22/Room C	<i>Triclinium /Sala representaci3n</i>	size and layout	610	20,58	910	30,71
		Room 23/Room D	<i>Triclinium</i>	size, layout and mosaic	590	19,91	910	30,71
Casa del Mitreo	end 1st / beg. 2nd c. CE	Room R	<i>Triclinium aestivum</i>	size, layout and mosaic	715	24,13	1100	37,12
		Room U	<i>Triclinium invernale</i>	mosaic	715	24,13	420	14,17

Table 3. Data pertaining to the dining rooms identified in *Augusta Emerita* (own work).

## 7. MIROBRIGA

Dining rooms have already been identified in four houses in *Mirobriga*, namely Room 7 of *Casa da Calçada*<sup>10</sup> (Sousa & Felício 2020: 1373), Room 5.1.2 of *Casa Periquito/Casa 5*<sup>11</sup> (Kopf 2018: 59), Room 8.3.5 of *Casa 8*<sup>12</sup> (Oberhofer 2018b: 137) and representational space, Room 7.1.2 of *Casa 7*<sup>13</sup> (Oberhofer 2018a: 110). There are other probable dining rooms, namely Room 2 of *Casa dos Frescos*<sup>14</sup> and Room 13 of *Casa da Hospedaria* (Casa 22 in Cortés 2018, p. 153-154), two partially preserved rooms whose length and width dimensions support their interpretation as dining rooms. However, both the *Casa dos Frescos* and the *Casa da Hospedaria* do not feature all the necessary measurements for a complete analysis due to their state of preservation. In the first case, only the width was preserved, and in the second, only the length. Regarding *Casa 8* and in the scope of this study, only the room interpreted as *triclinium* in the 3<sup>rd</sup> phase was considered<sup>15</sup> (Fig. 5).

Although the plan of the buildings is fairly preserved, most of these spaces have no preserved floor, with the only exception being the so-called *Casa dos Frescos*, which presents an *opus signinum* floor that covers the full extent of the preserved room. This floor, however, doesn't show any indicators regarding the placement of *lecti*. *Casa dos Frescos*, as given away by its name, yielded a mural painting identified in the space that can be interpreted as a dining room.

The layout of this decorative element also does not provide any additional information regarding the organisation of the space. Room 7 in *Casa da Calçada* hasn't, to this date, been fully excavated and may still have a preserved floor.

As such, the identification of the dining rooms was essentially based on an empirical comparison with more complete examples from other sites, based on their dimensions and position in plan (Cortés 2018: 148-152).

The chronology of *Mirobriga*'s domestic buildings has been ascribed to the time between the Flavian period and the beginning of the 2<sup>nd</sup> c. CE, namely *Casa 7* (Oberhofer 2018a: 109), *Casa Periquito* (Kopf 2018: 58) and *Casa da Calçada* (Sousa & Felício 2020: 1374).

*Casa da Hospedaria* is possibly the oldest example with a proposed chronology for its construction in the middle of the 1<sup>st</sup> c. CE (Biers *et al.* 1982, p. 37-39; Slane *et al.* 1984: 61-62).

*Casa 8* was originally built during the Flavian period but was redesigned over time; the phase studied herein dates from the mid- to late 2<sup>nd</sup> c. CE (Oberhofer 2018b) and is the city's most recent example known so far.

*Casa dos Frescos* was largely excavated in 1972 but no stratigraphic records are known, which makes it impossible to assign a precise chronology to its construction. However, the possible dining room identified therein dates from a later phase, and the most direct chronological element is the preserved mural painting covering an opening that was eventually walled up. This painting was dated to the 2<sup>nd</sup> half of the 2<sup>nd</sup> c. CE, based on stylistic criteria (Rosário *et al.* 2002: 167-168) and should, for this reason, be considered with due caution.

The dimensions and proportions of the dining rooms documented in *Mirobriga* are identical to one another (Tab. 4). The most coherent set is composed of the *triclinia* of *Casa da Calçada* (651 cm in width by 830 cm

<sup>10</sup> Also referred to as *Construção/Domus 3* in Quaresma 2012.

<sup>11</sup> Formerly referred to as Casa 1 in Teichner *et al.* 2014.

<sup>12</sup> Formerly referred to as Casa 4 in Teichner *et al.* 2014.

<sup>13</sup> Formerly referred to as Casa 3 in Teichner *et al.* 2014.

<sup>14</sup> Also referred to as «Casa Oeste» in Rosário *et al.* 2002; however, this designation corresponds to the area of the city where the «West Houses» are located (Biers 1988).

<sup>15</sup> The proposal presented by the author for the floorplans of the two previous phases isn't, in our view, supported by the data.

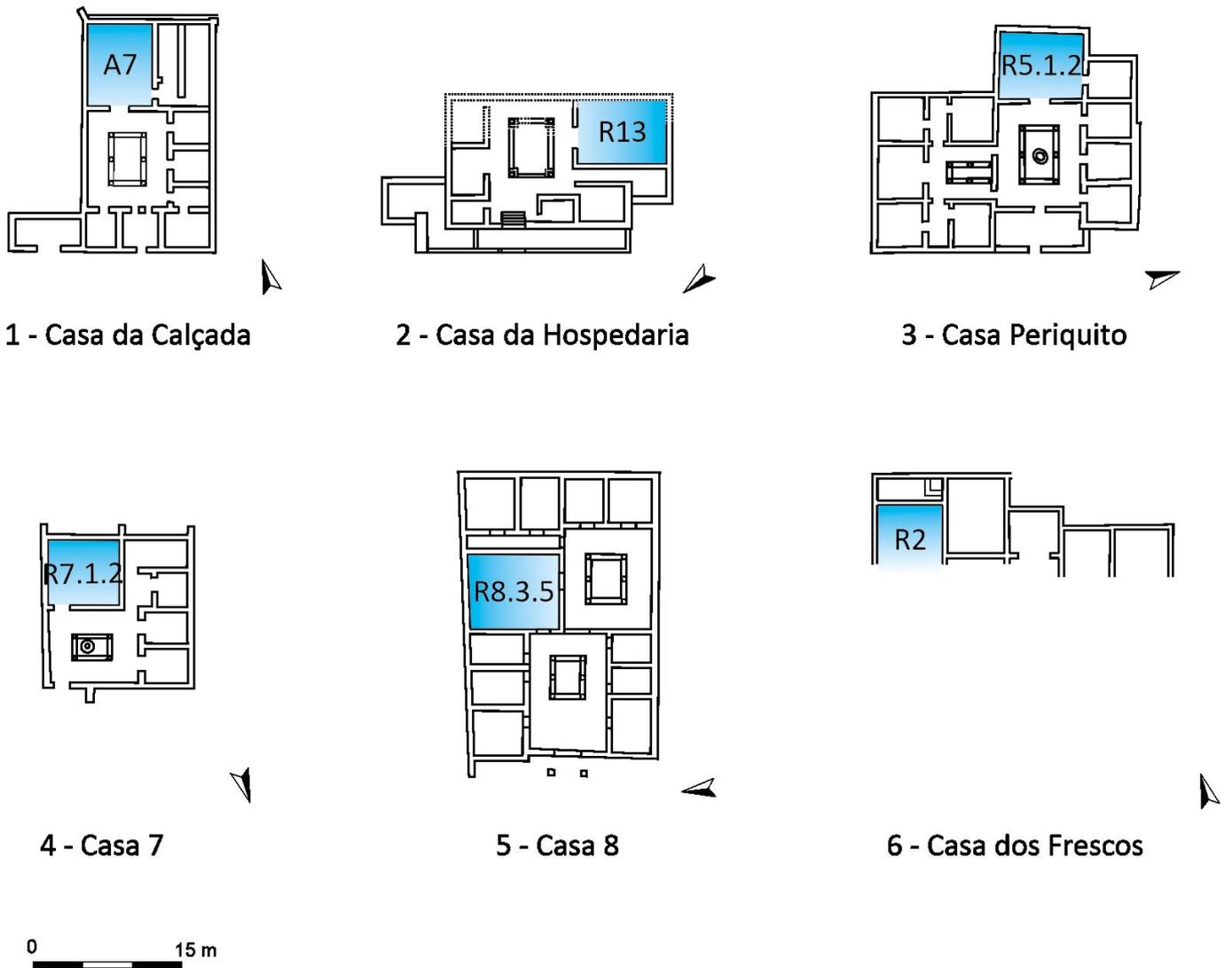


Figure 5. Houses of *Mirobriga* and the respective dining rooms documented therein (1 – adapted from Sousa & Felício 2020: fig. 2; 2 and 6 – own work; 3 – adapted from Kopf 2018: fig. 103; 4 – adapted from Oberhofer 2018a: fig. 144; 5 – adapted from Oberhofer 2018b: fig. 161).

Building	Chronology	Mirobriga			Width		Length	
		Room designation	Published interpretation	Basis of interpretation	cm	feet (29,63)	cm	feet (29,63)
Casa da Calçada	end 1st / beg. 2nd c. CE	A7	Triclinium	size and layout	655	22,11	835	28,18
Casa da Hospedaria	Flavian (69 – 96 CE)	Room 13	Triclinium	size and layout	no data	no data	890	30,03
Casa dos Frescos	end 1st / beg. 2nd c. CE	Room 2	undesignated	size	655	22,11	no data	no data
Casa Periquito	Flavian (69 – 96 CE)	R 5.1.2	Triclinium	size and layout	665	22,44	845	28,51
Casa 7	Flavian (69 – 96 CE)	R 7.1.2	Representation room	size and layout	740	24,97	660	22,27
Casa 8 (Phase 3)	middle/end of 2nd c. CE	R 8.3.5	Triclinium	size and layout	760	25,64	910	30,71

Table 4. Data pertaining to the dining rooms identified in *Mirobriga* (own work).

in length), *Casa Periquito* (669 cm in width and 844 cm in length), *Casa da Hospedaria* (with an estimated width of ca. 650 cm by 879 cm in length, according to the planimetric reconstruction of the house) and *Casa dos Frescos* (measuring 661 cm in width but with a still unknown length). Regarding these last two examples,

and though they are not fully preserved, the dimensions observed, both in terms of length and width, are consistent with those observed in the other dining rooms of the city, thus strengthening their interpretation as such.

The proportions of the other two examples, *Casa 7* and *Casa 8*, do not match the previously mentioned

ones. The *triclinium* from *Casa 7* measures 730 cm by 660 cm, displaying an almost square morphology and its layout is not immediately perceptible, while the *triclinium* from *Casa 8* features the largest dimensions, with a width of about 760 cm and a length of about 910 cm.

## 8. DISCUSSION

### 8.1. Metrical analysis

The measurements recorded in the sample of dining rooms studied herein allow us to recognise not only the existence of various scales for these spaces but also what seems to be some standardisation of the dimensions, namely in terms of widths, which supports the definition of four size clusters. The length measurements show some variations, not enabling the definition of clusters, although some of the length measurements are recurrent. This suggests the existence of some flexibility in the definition of the lengths, as opposed to the widths (Tab. 5).

In this sense, the relative consistency of the width values supports the interpretation that this measure would be the most relevant, and should not be compromised, possibly due to the dimensions of the furniture and the required arrangement, the same not applying to the length.

Clusters 2 and 3 are divided into two subclusters, even though their sizes are almost identical. This distinction is due to the apparent use of a different module in the design of the rooms, resulting in slightly different measurements among them, but not different enough for their classification in a new cluster (Fig. 6).

#### 8.1.1. Cluster 1

The first cluster consists of only one example, corresponding to a room 35 ft wide and 45 ft long. The greatest common divisor (GCD) is 5, both for width and length, so this may have been the module used to define the room. As there is only one example in the sample, it is not possible to characterize the cluster. However, we would not rule out that there may be more examples of this size.

Cluster	City	Building	Room	Width		Mean		Median		Length		Module	Intended measure		Proportions
				cm	ft (29,63)	cm	ft (29,63)	cm	ft (29,63)	cm	ft (29,63)		ft	Width (ft)	
Cluster 1	Augusta Emerita	Casa del Anfiteatro	Room 29/Room A'	1020	34,42	–	–	–	–	1350	45,56	5	35	45	7x9
Cluster 2 – A	Conimbriga	Casa de Cantaber	Room 20	770	25,98	751,1	25,35	752	25,37	1335	45,05	5	25	45	5x9
		Casa dos Repuxos	Room 33 *	715	24,13					1200	40,49	5	25	40	5x8
		Casa da Cruz Suástica	Room 18	744	25,11					1078	36,38	5	25	35	5x7
		Casa dos Esqueletos	Room 9	780	26,32					940	31,72	5	25	30	5x6
	Augusta Emerita	Casa Moreria 6	Salón	770	25,98					1025	34,59	5	25	35	5x7
		Casa Alcazaba 2	Room E	740	24,97					1355	45,73	5	25	45	5x9
	Mirobriga	Casa 7	R 7.1.2	730	24,63					660	22,27	5	25	25	5x5
		Casa 8	R 8.3.5	760	25,64					910	30,71	5	25	30	5x6
Cluster 2 – B	Augusta Emerita	Casa del Mitreo	Room R	715	24,13	715	24,13	715	24,13	1100	37,12	6	24	36	4x6
			Room U	715	24,13					545	18,39	6	24	18	4x3
Cluster 3 – A	Conimbriga	Casa dos Repuxos	Room 29 *	610	20,58	646	21,8	655	22,1	810	27,33	7	21	28	3x4
	Augusta Emerita	Casa Calle Pareja 32	undesignated	645	21,76					no data	no data	7	21	no data	3x7
	Mirobriga	Casa da Calçada	A7	655	22,11					835	28,18	7	21	28	3x4
		Casa dos Frescos	Room 2 *	655	22,11					no data	no data	7	21	no data	3x7
		Casa Periquito	R 5.1.2	665	22,44					845	28,51	7	21	28	3x4
Cluster 3 – A or B	Conimbriga	Ed. Oeste da Zona C	undesignated	620	20,92	–	–	–	–	no data	no data	5 / 7 ft	20 / 21	no data	4x7 / 3x7
Cluster 3 – B	Conimbriga	Casa de Cantaber	Room 6	630	21,26	591,5	19,96	586	19,77	910	30,71	5	20	30	4x6
		Ed. Latrinas do Forum	undesignated	580	19,57					465	15,69	5	20	15	4x3
		Insula do Aqueduto	Room 16	575	19,41					875	29,63	5	20	30	4x6
		Casa Medianum Absidado	Room 8	590	19,91					730	24,63	5	20	25	4x5
	Capera	Capera 3	undesignated	582	19,57					744	29,87	5	20	30	4x6
	Augusta Emerita	Casa Moreria 6	Triclinium	575	19,41					430	14,51	5	20	15	4x3
		Casa del Anfiteatro	Room 22/Room C	610	20,58					910	30,71	5	20	30	4x6
	Mirobriga	Casa da Hospedaria	Room 13	no data	no data					910	30,71	5	20	30	4x6
			Room 65	420	14,17					890	30,03	5	no data	30	7x6
	Cluster 4	Conimbriga	Casa de Cantaber	Room 65	420					14,17	411,5	13,88	–	–	620
Conimbriga		Casa dos Repuxos	Room 34 *	403	13,61	466	15,72	2 / 7 ft ?	14	16 / 21 ?					2x3 ?

\* rooms with preserved finishing

Table 5. Cluster comparison table (own work).

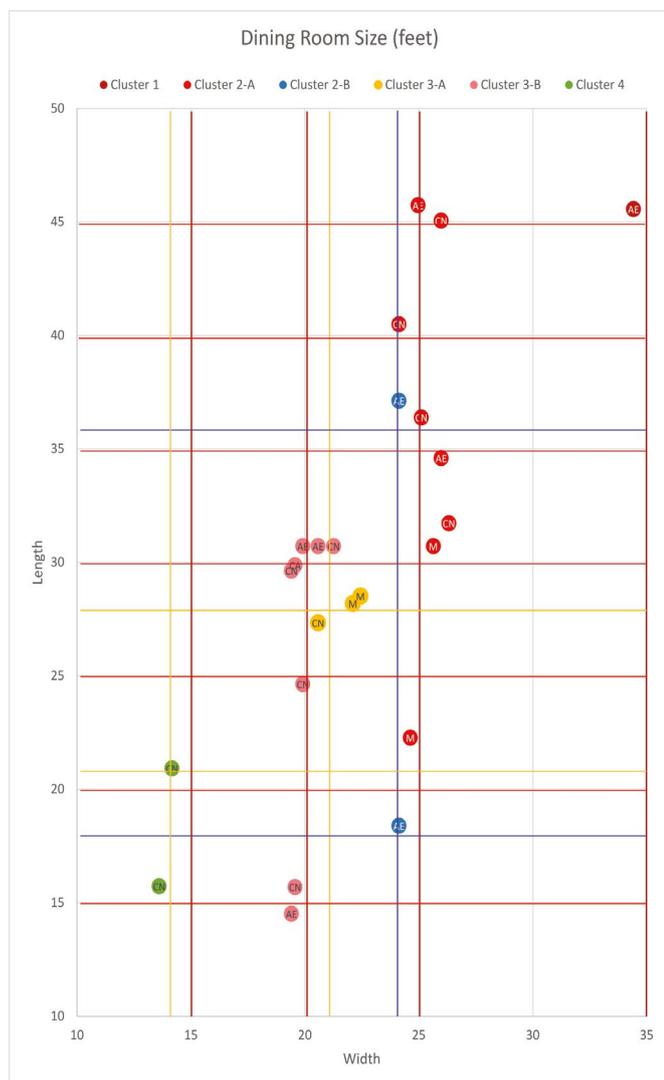


Figure 6. Dining rooms size dispersion graph. Rooms are labelled according to their location (AE *Augusta Emerita*; CA *Capera*; CN *Conimbriga*; M *Mirobriga*). Coloured lines represent the different proposed modules (Red: 5 ft; Blue: 6 ft; Yellow: 7 ft) (own work).

### 8.1.2. Cluster 2

This cluster includes ten examples and has been divided into two categories: A and B, according to the module used. Cluster 2-A, with eight examples, has a probably intended width of 25 ft and a variable length, between 30 and 45 ft. The GCD is 5, so this may have been the module used. This cluster has one noteworthy exception, Room R 7.1.2 of *Casa 7* from *Mirobriga*. This room measures 24.6 ft by 22.3 ft, and it is not clear, at first sight, what the intended measurements were, namely, how to distinguish length from the width and what module was used for its sizing.

The explanation for this lack of proportion may lie in the way the spaces within the house were laid out. The

house has an internal length of about 50 ft, of which 25 ft have been set aside for the width of the peristyle and, apparently, another 25 ft for the *triclinium*. The dining room would thus have a square proportion with 25 ft to a side. However, the wall separating the *triclinium* from the peristyle was built within the modules reserved for the *triclinium* itself, leaving the correct proportion for the layout of the peristyle, but ultimately taking away space from the dining room, thereby limited to a length of only 22.3 ft (Sousa & Felício 2022: 504-505).

Hence, if we consider 24.6 ft (25 ft intended) as the width, only the length saw its proportions compromised, while the width remained well proportioned, a situation that suggests, once again, that the width would be the most important measurement, possibly because it was meant to accommodate the furniture. This interpretation is further strengthened by the arrangement of the “T+U” markings found in the *Edifício das Latrinas do Forum* and the *Edifício Oeste da Zona C*, in *Conimbriga*, placed on the longer side of the room; and by the dining room of *Casa Moreria 6* that, given the location of the door, would not allow the placement of *lecti* in the narrower side of the room, the width corresponding, therefore, to the longer side.

Cluster 2-B consists of only two examples found in the same house in *Augusta Emerita*, *Casa del Mitreo*. Both feature a width of ca. 24 ft and probable intended lengths of 18 ft, in one case, and possibly 36 ft in the other (real 37.12 ft). The GCD for these values is 6 so this may have been the module used to define these rooms.

The proximity of the intended measurements of the 24 × 36 ft proposed for Room R and the 25 × 35 ft found in the other examples from Cluster 2-A accounts for an added difficulty in distinguishing these sub-clusters. However, the values obtained from Room U, in the same house, have a less arguable correspondence to a 6 ft module, giving weight to an intended measure of 36 ft, with a surplus of 1.12 ft, for the length of Room R.

### 8.1.3. Cluster 3

This cluster includes a total of 15 examples. It was also divided into two subclusters differentiated by the apparent variation in the module used.

Cluster 3-A consists of five examples and is characterised by a width of 21 ft and a length of 28 ft in the complete examples, having a GCD of 7.

Two of these examples are in poor condition or were not fully excavated resulting in only one reference

measurement available; we are referring to the *Casa de la Calle Pareja 32 (Augusta Emerita)* and the *Casa dos Frescos (Mirobriga)*. In these cases, the width dimensions are very close to 21 ft, so this may have been the intended width, which indicates a module of 7 ft.

To properly ascertain if these should fit into Cluster 3-A or 3-B, it would be necessary to have their length preserved or excavated. However, in two of these cases, the measurements obtained are well over 21 ft. If in *Casa de la Calle Pareja 32* we may have to account for an excess for the installation of the finishing, in *Casa dos Frescos*, the plastered surface is preserved and accounts for a width of 22.11 ft, making it less likely that these examples could belong to Cluster 3-B.

Cluster 3-B includes nine examples and is characterized by a width of 20 ft and a length between 15 and 30 ft, its GCD being 5 and therefore this may have been the module used. *Casa da Hospedaria (Mirobriga)* is not totally preserved and only its length (30 ft) can be assessed. The proportions usually documented for this cluster support an estimate of 20 ft for its width, consistent with the restored dimension proposed for this building by Ada Cortés (2018: 154).

Room 29 of the *Casa dos Repuxos (Conimbriga)* also fits into this cluster. As previously mentioned, this room has two internal brick walls built flush against its South and East walls. Being aware of this situation, we have chosen to record two sets of measurements for this room, i.e. the length and width both with and without the internal walls<sup>16</sup>.

The measurements obtained without the walls were 598 cm wide by 772 cm long, corresponding to 20.2 × 26 ft. The walls are 16 cm (South) and 19 cm (East) thick, plus 11 cm and 8 cm of plaster and pictorial finishing on the North and West walls respectively, resulting in a rectangular space 582 cm wide by 753 cm long, corresponding to 19.64 × 25.41 ft.

The function of these inner walls is not clear. Their construction, fragile and disorganized in terms of the placement of the constructive elements, does not seem to be related to a reinforcement of the main walls, being more like a regularization filler.

Both the construction technique and the recorded measurements, with and without these walls, seeming-

ly support its interpretation as an attempt to correct the proportions of the room, bringing it closer to the 20 × 25 ft values.

As for the case of *Edifício Oeste da Zona C (Conimbriga)*, due to the block being, to this date, largely unexcavated, only the measurement of its width is available. However, unlike the rooms from *Casa de la Calle Pareja 32* and *Casa dos Frescos*, its width (20.92 ft) could fit in either subcluster A or B. As such, in the absence of a length that could help us verify what module may have been used, we ascribed it simply to Cluster 3, without specifying a subcluster.

#### 8.1.4. Cluster 4

The last defined cluster includes only two examples. Room 65 of *Casa de Cantaber* has a width of 420 cm and a restored length of ca. 620 cm. These measurements could correspond to a room of ca. 15 × 20 ft, with a module of 5 ft, or a room with 14 × 21 ft, having thus a module of 7 ft.

The other example, Room 29 of *Casa dos Repuxos*, is 403 cm wide by 466 cm long, corresponding to ca. 14 × 16 ft. In this last case, the interpretation of the module presumably used depends on the room's intended proportions at the time of its design: on one hand, a module of 2 ft can be admitted since it is the GCD of 14 and 16, in which case the room would feature the originally intended proportions; on the other hand, one might also consider that the room would have been designed using 7 ft modules and a 14 × 21 ft proportion, the length having been shortened by 5 ft due to the irregular configuration of the plot, not unlike the situation observed at *Casa 7 of Mirobriga*.

If that was the case, this could reinforce the idea that Room 65 was also designed with a 7 ft module and had intended measures of 14 × 21 ft.

However, considering these possibilities and the scarcity of examples of any of the dimensions documented in these two cases, their characterisation as a cluster becomes difficult due to the lack of comparative elements, still not supporting the establishment of a trend concerning their proportions.

## 8.2. Global overview

From an accounting point of view, cluster 3 is the most numerous, with 15 examples, nine of which feature a five-foot module while six feature a seven-foot mod-

<sup>16</sup> The table only includes the measurements of the internal walls.

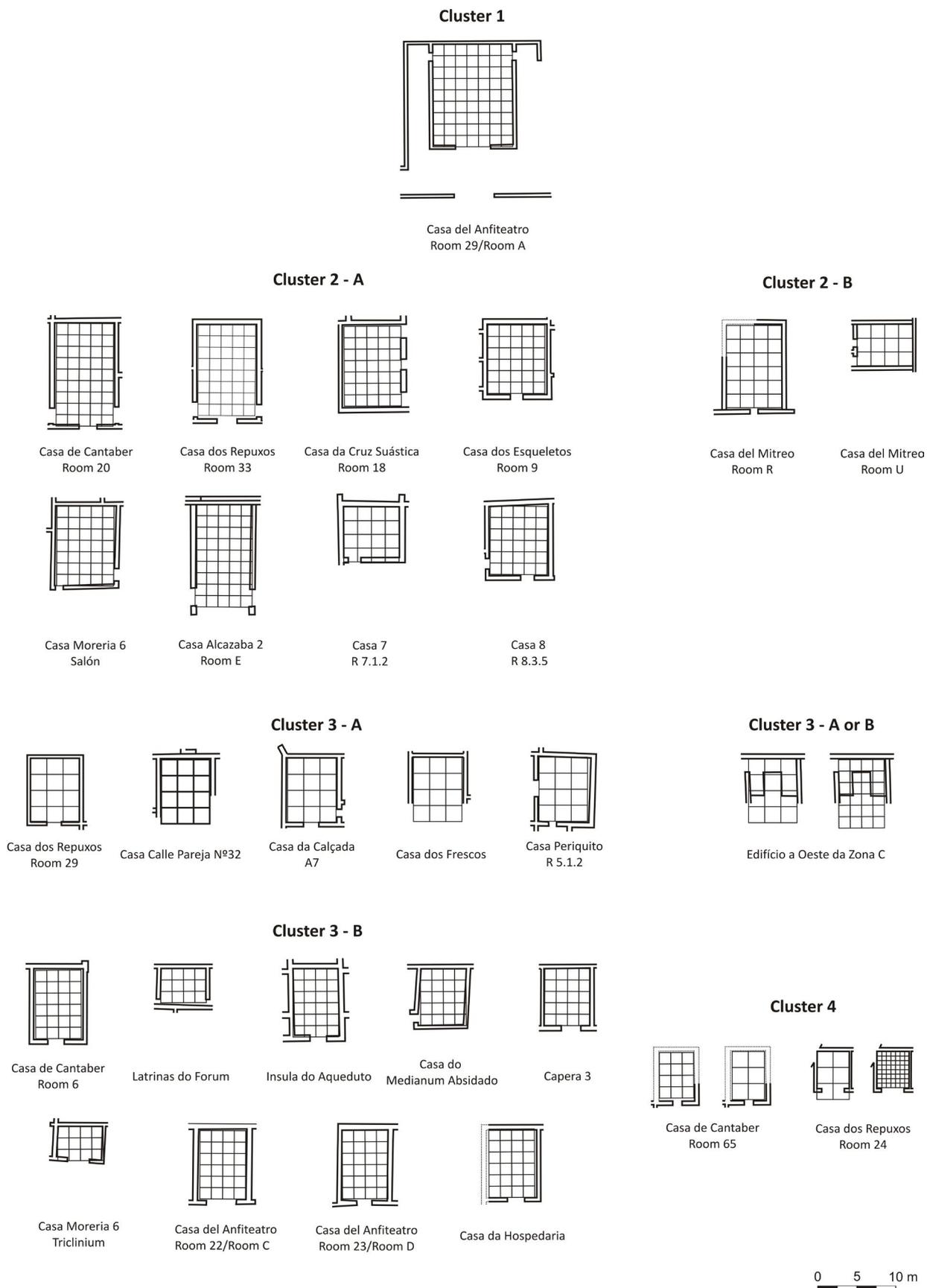


Figure 7. Global overview of the floorplans of the rooms under analysis and the respective proportions and modules (own work).

ule. Arguably, the intended dimensions were 20 ft in width in the first case and 21 ft in the second. This difference would not be sufficient to differentiate the rooms in terms of a specific function in the dining activities spectrum.

Cluster 2 counts ten examples, eight of which were designed according to a five-foot module and two with a six-foot module, resulting in a width of 25 ft in the first case and 24 ft in the second. In this cluster, there is also a minimal difference that should not have had any influence on the intended function of the rooms.

With the exception of clusters 1 and 4, whose samples are not large enough to establish criteria, most of the dining rooms included in this sample tend to measure between 20 and 25 ft in width, which is probably the optimal dimension for this type of room.

Since width variation observed in these clusters and subclusters is not significant (20 and 21 ft for cluster 2; 24 and 25 ft for cluster 3) the differences should not result in functional differences but may be related either to space restrictions related to the laying out of the building on the plot, or to the mathematical or theoretical-methodological principles used to calculate the proportions of the rooms. In this sense, the use of different modules (two, five, six and seven ft) may be related to different theories of architectural thought for the sizing of spaces, such as the existence of architectural traditions or schools that used different modules for the calculation of architectural elements and spaces (Fig. 6).

However, the corroboration of any of the hypotheses for the use of one or another module still lacks more comprehensive metric studies of each of these buildings, in order to characterise their design processes.

The remaining examples, corresponding to clusters 1 and 4, stand at both ends of the studied sample. In the case of the only example from Cluster 1, its large dimensions allow us to infer that it may have had a significant representational function and may have been a space ordered with such architectural characteristics, possibly in accordance with the status of its owner. Conversely, the examples from Cluster 4, both due to their small dimensions and their location in secondary peristyles, would appear to be dining rooms of less formal use, or a more familiar nature. Once again, the lack of examples with such dimensions in this sample inhibits a reliable interpretation.

The rules of proportion prescribed by Vitruvius for the sizing of the dining rooms determine that the length should be twice the width (VI, III, 8). However, this rule of proportion was not observed in any of the examples

addressed herein. This suggests, once again, the existence of several schools of architecture that presumably used different methodologies and principles for the proportioning of spaces. In this sense, the Vitruvian ‘school’ does not seem to be reflected in the sizing of the dining rooms in Lusitania.

### 8.3. Dining rooms and their context of use

Only five of the 18 houses studied had more than one dining room. The presence of several dining rooms in the same residential building has been related to different contexts of use.

If, on one hand, seasonality may justify the existence of several dining rooms in distinct areas of some of the houses, some rooms being more suitable for summer or winter use (Corrales Álvarez 2016a: 217); on the other hand, the simultaneous existence of dining rooms of different sizes in the same house, some in prominent zones and others in more reserved areas of the dwellings, may reflect the fact that meals were held in different social contexts: such as more formal and important meetings, that could involve larger numbers<sup>17</sup>; or reserved for less formal or more intimate moments, possibly familiar, or for common use, as apparently suggested by the designation *cenatio cotidiana* (Plin. Ep. 5.6.21).

Regarding their possible seasonal use, there seems to be no coherency in the orientation of the rooms, in the studied sample. This could either be due to the urban layout or plot restrictions, that wouldn’t allow for optimal orientation; or with other less clear factors related to the house planning that didn’t value the orientation of certain rooms.

Vitruvius’ prescriptions for room orientation are vague since the author didn’t specify which part of the room should face which direction. In the case of bath buildings, Vitruvius states that the orientation should be towards the west in order to catch the afternoon sun (Vit. VI, IV, 1), but we know from bath buildings studies that he probably refers to the windows of the *caldarium* and *tepidarium*, for maximizing heat capture with the greenhouse effect. Could this also be the case for *triclinia*? Or is he referring to the entrance of the room?

<sup>17</sup> As suggested by Dunbabin (2003: 42-43) the larger rooms could hold bigger banquets where more people than the traditional nine could attend.

In fact, Vitruvius stresses the need for windows in *triclinia*, which in case of existing architectural restrictions should be placed wherever possible (Vit. VI, VI, 7). This would make orientation prescriptions less relevant since windows could be placed anywhere. For example, the large *oeci* from *Casa dos Repuxos* e *Casa de Cantaber* (Room 33 and Room 20) have distinct orientations, west and north, respectively, but both have large back and side windows that allow a 360° view towards gardened areas, making them, in theory, suitable for its utilisation year-round.

In effect, both of these rooms have secondary doors on either side, connecting to other areas of the house. This would allow for the dining room to be isolated from the peristyle by closing the doors of the main threshold, making them interior rooms still accessible from other areas of the house. This could, in theory, create a more comfortable and intimate atmosphere in colder seasons.

Other examples are the two dining rooms identified at *Casa del Mitreo*. These feature comparable widths, both belonging to Cluster 2B. As proposed by Corrales Álvarez (2016a: 217-218), the distinctive factor is their location, namely the interior character of Room U, which could indicate use in colder periods, while Room R, conversely, suggests a possible summer use. Their orientation is somewhat inconclusive and doesn't seem to follow Vitruvius's prescriptions either, suggesting that a more diverse set of solutions for room climate conditioning was being used.

In the case of Room 22/D and Room 23/C of *Casa del Anfiteatro* since they are next to each other, a seasonal distinction could be excluded, although they feature the same intended dimensions. The existence of these two rooms, side by side, concurs in favour of a use in different social contexts, with one of these rooms being possibly reserved for less formal events, or, as proposed by Balil (1976: 89 *apud* Pizzo 2004: 343), being 'the result of a certain type of etiquette or a form of social intercourse'.

Conversely, all the multiple dining rooms of the houses of *Cantaber and Repuxos* or *Moreria 6* feature different dimensions, some of them being situated in the same peristyle, so that, in this case, although the characteristics that might indicate a seasonal use are not obvious, it is possible that they were used in different convivial contexts.

Moreover, some of these rooms (Room 29 and Room 34 - *Casa dos Repuxos*; Room U - *Casa del Mitreo*; Room 23/D - *Casa Anfiteatro*) display atypical pavement layouts, different from the "T+U" layout, which would seem to indicate different furniture arrangements and, consequently, different convivial contexts, a hy-

pothesis already advanced by Virgílio H. Correia concerning Room 29 of the *Casa dos Repuxos* (2013: 265).

In the apparently more modest dwellings, where there is only one dining room, the latter almost always corresponds to the size represented by cluster 3 and, to a lesser extent, by Cluster 2. These dimensions, arguably more versatile, could function as a representational room, but possibly also in less formal contexts, due to the absence of other dining rooms.

## 9. FINAL REMARKS

The sizing observed in the dining rooms under analysis here, seems to be the result of a design conceived to serve a specific function, the holding of a banquet, which required furniture of specific configuration and dimensions, boilers for heating foods, as well as space for servants and guests to circulate.

In this sense, the repetition of certain measurement patterns, represented by the four clusters, denotes the existence of architectural maturity in the conception of these spaces and, above all, of a functional purpose involving criteria that were apparently not very flexible. This is further suggested by the inner walls in Room 29 of *Casa dos Repuxos*, which were, apparently, built to correct the proportions of the room. This also suggests little influence of the ordering party, with the criteria for the sizing of the rooms being left to the architects. The latter would act according to their own school of thought, as suggested by the various modules and proportions documented, which in turn differ from the thought advocated in the only textual source that has reached us - the prescriptions given by Vitruvius were not documented in any of the rooms we've analysed.

Another conclusion that can be drawn from this analysis is that the design of these rooms seems to have been based on linear measurements and not on area measurements. This can be deduced from the relative homogeneity of the widths, which allows the definition of clusters, as opposed to the more heterogeneous set of lengths. This results in rooms from the same cluster having different areas.

This results in rooms with different areas, possibly a less important criterion, as long as the necessary width for the placement of *lecti* was ensured, as well as some circulation space in the anteroom, where more variability was admissible depending on the available space. This observation seems to go along with Mark Wilson Jones' observations that Roman's attitude to design doesn't follow rigid rules or recipes but instead relies on principles

that can be adapted to certain contexts (Jones 2000: 9).

In this regard, room orientation also doesn't seem to have been a rigid prescription, with no particular pattern being detected. The location of the rooms themselves, either in inner areas or in peristyles, seems to be a more critical factor for their seasonal use. In some cases, the placement of windows may also have played a significant role in allowing a greater solar exposure.

As for the different dining room scales identified, sometimes coexisting within the same house, this may reflect different party numbers and/or social contexts of use, which, in this case, would reflect the commissioner's wishes, although the sizing criteria, which still needs to be better understood, were probably left to the architects.

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