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Investigating imperial space on the Palatine Hill in Rome: preliminary results of the Domus Flavia 2012 research campaign

Natascha Sojc, Léon J. Coret and Lisa C. Götz

Palace architecture from the Roman Imperial period has been investigated both from an archaeological as well as a spatial perspective. Following a combined approach, circa 25 rooms and spaces, which were until now considered 'unspectacular', and have therefore been neglected by researchers, have been evaluated for the first time in terms of their spatial and functional properties.

1 INTRODUCTION

On the Palatine Hill in the centre of Rome the remains of the Imperial palaces are exposed and on public display: A seemingly endless maze of brick architectural structures forming tracts around peristyle courtyards and framed by open spaces where the delimiting of interior and exterior is sometimes impossible to locate, since main entrances are largely missing (fig. 1). These palaces were erected,



Figure 1 Northern and western part of the Imperial palace, the area of the Domus Flavia in its current state of preservation, seen from the south. In front: central fountain and peristyle courtyard. On the far left: palace forecourt of the Area Palatina. Source D-DAI-ROM-2010.1065 (D. Gauss).

according to literary sources, by various Emperors “each one building his own house (domus) next to the ones already in existence”¹, but most of the structures were in use simultaneously from the second half of the 1st century AD until the end of the 3rd century AD as the residence of the ruling Emperor, his family and his court². In addition, they were the seat of the Imperial bureaucracy, where various activities ranging from handling court cases to the archiving of documents took place. In short, this multifunctional complex served as one of the most important interaction spaces of the ruling elite.

As the Imperial domus have been alluded to by ancient authors in the most suggestive anecdotes, researches have been engaged over the centuries to find out where for example Emperor Domitian dined like the god Jupiter³. Of particular interest for archaeological examination is the so-called Domus Flavia with its enormous, luxuriant halls that is located more or less in a central position on the Palatine Hill. The term is of modern origin, attributed to the building because it was interpreted as the residence of the Flavian dynasty, which ruled in the second half of the 1st century AD⁴. Even so, the attribution is debated, but it has stayed in use as an archaeological technical term to denote a particular area of the Palatine remains (fig. 2).

Since all the excavations of the Domus Flavia have been only inadequately published with research and restoration starting as early as the first half of the 18th century⁵, there still are to date largely unexplained fundamental questions about this central area of the Imperial palace, such as concerning the dating of the complex and its utilisation, its connection to component parts of circumjacent palace tracts and the exterior of the palace. Due to the fragmentary state of the information alone, a new archaeological examination was started in 2009 by the universities of Würzburg and Leiden, in collaboration with the universities of Aix-Marseille I (Provence) and Augsburg⁶. Simultaneously, the area was surveyed by architects of the German Archaeological Institute in close cooperation⁷. Whereas the campaigns of 2009-2011 focused on a combined effort by the participating institutions to collect information in the whole area to obtain a general overview of the chronology of the palace tract⁸, the goal of Leiden University’s Domus Flavia research campaign in 2012 was to combine the archaeological chronological analysis with a spatial investigation⁹. This goal was chosen because one major research problem in the Domus Flavia is that so far it has been nearly impossible to find out more about the utilization of the rooms and spaces. The three halls in the northern part of the Domus Flavia (530-532) have already been interpreted by F. Bianchini with regard to their functional use, and this view continues quite predominantly in research to this day. The excavator considered room 530 to be a place of imperial dispensation of justice¹⁰, the

so-called Aula Regia (531) as a reception hall, and room 532 as an entrance hall for the palace¹¹. However, the rooms only open onto a terrace and not into the open, in front of the palace, meaning that their accessibility remains an open question¹². However, a further fundamental research problem is thus raised: It is that by concentrating on the large halls, research of the remaining, circa 50, rooms of the Domus Flavia continues to be ignored. Some of the rooms in our examination are therefore focused on for the first time. How does one get from A to B? How clearly arranged were the routing layouts designed? Were smaller rooms also structured by a spatial hierarchization within their own area? It was to be expected, with an analysis within a micro-spatial context of the palace architecture, that new findings regarding the everyday use of Domus Flavia would be gained¹³.

It was therefore decided to concentrate our spatial examination on the entrances and passages in two different areas (fig. 2). Firstly, an obvious movement divider – a room with five openings – and its adjoining spaces was investigated (533, 534, 575-582) and secondly, a set of rooms that stands out in the plan because of its symmetrical layout (517-527). The subjects of these case studies were chosen also on the grounds of them most probably belonging to the same period, which was tested and subsequently confirmed at the beginning of the campaign. A foundation has thus been assured for the combination of the results from the separately conducted spatial investigations. The research objective was to obtain an overview of perception and usage of space as well as a first insight into the movement system¹⁴ within the Palatine residence in one of its periods.

First of all, it was important to determine the chronological development of the complex; which walls and passages belonged to the original phase and which came in later? This chronological research¹⁵ was conducted by analysing the brick walls, foundations and brick stamps¹⁶: The bricks used, the components of the mortar, the type of nucleus of the wall, as well as various technical features, e.g. scaffolding holes – all these details differ over time and therefore tell us something about the phase in which a certain wall was constructed. In the foundations constructed with the help of a Roman version of concrete (*opus caementitium*), the composition of the material changed significantly over time and was analysed as well. A further indicator of the chronological positioning of the respective walls is brick stamps, which can – on the basis of their inscription – be linked to a certain period of production. Based on the study and documentation of this information, preserved structures were finally appointed to the various phases¹⁷.

After the phase-identification, an investigation was carried out into how these contemporary architectural elements functioned together from a spatial point of view. As the research was meant to be exploratory we concentrated on the

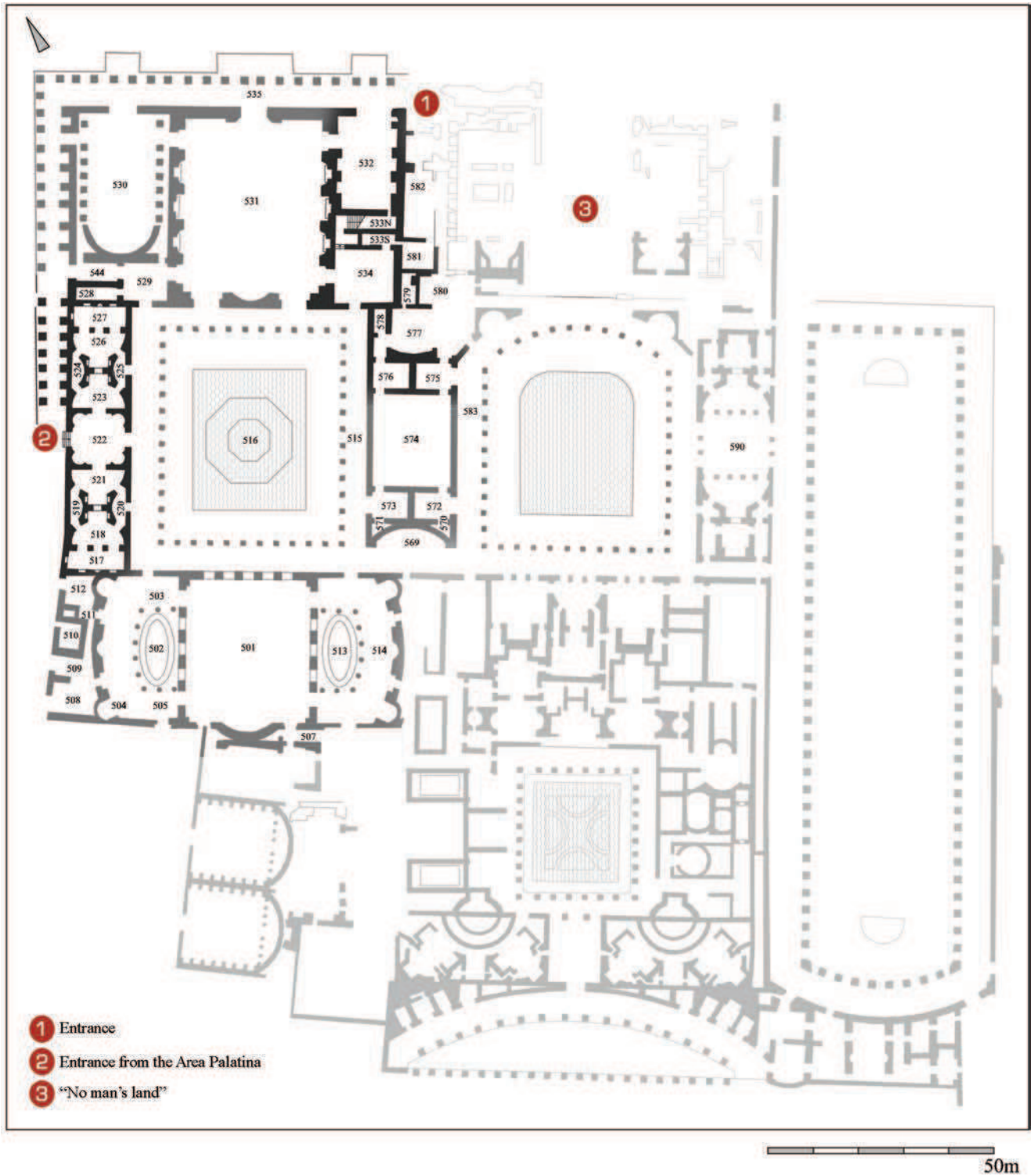


Figure 2 The central complex of the Imperial palace on the Palatine Hill in Rome. Reconstructed plan. In black the areas of Leiden University's research campaign in the Domus Flavia in 2012. The plan is only partially numbered as the investigation of the Domus Flavia is still ongoing and some conflicting criteria have not been conclusively resolved. The 500 numbers denote that the room or space is on the main circulation level of the palace. Drawing by M. Knechtel and A. Rheeder, after directions of N. Sojc.

visibility, permeability, integration, and depth of the various rooms and passages: With regard to visibility, the main axial line within a space was investigated. While examining permeability we wanted to test the possibility of moving through certain spaces instead of just being able to see them. Regarding integration, we referred to the relative interconnectivity of a certain space in relation to the other spaces. The more connections a certain space had, the more integrated it was in the building. This depends on the integration of its adjacent spaces. To analyse the integration of a certain space we took into account the centrality of its location as well as its depth into the building from the main entrances¹⁸. As mentioned above, it was decided to analyse the spatial properties of mainly one phase, the original building phase. However, the later phases were taken into account to better understand the influence that architectonic changes within the building had had on the usage of space.

2 CASE STUDY 1: A MOVEMENT DIVIDER AND ITS ADJOINING SPACES (533, 534, 575-582)

The northeastern corner of the Domus Flavia has always been one of the most debated locations in the quest for entrances that led into the Imperial palace: Several researchers have reconstructed the main entrance into the complex in this

area¹⁹. The main reason for this assumption is that one of the main access ways from the city to the palace, the so-called Clivus Palatinus, led up the Palatine Hill nearby. As the archaeological remains of the ancient street can only be followed to about midway up the hill, it is not clear how it was linked up to the palace and thus the argumentation can only be based on the still remaining internal palace structures. This is also problematic because of the bad condition of the building parts to the east: There, basically only the foundation and some unrelated smaller wall partitions are left standing, hence this part has been dubbed a “no-man’s-land”²⁰. Due to the same orientation of these structures as the ones still in existence in the Domus Flavia, some link between the structures can be assumed but not investigated in detail. Located in this northeastern context, room 534 was chosen as a starting point for the spatial analysis because its five entrances show that the room functioned as a movement divider. A further reason for the choice was that immediately to the east, possibly one of the main entrances was positioned²¹ (fig. 2).

2.1 Archaeological analysis

The brickwork walls still standing to a considerable height in the northeastern part of the Domus Flavia (fig. 3) have a



Figure 3 North-eastern part of the Domus Flavia in its current state of preservation, seen from the south. Source D-DAI-ROM-2010.1068 (D. Gauss).

homogeneous appearance, which is also the case for the visible foundations²². The original building phase presents a uniform brick facing with reddish *sesquipedales*²³. The mortar in the joints between the bricks contains red and black volcanic materials and was worked with a very typical trowel technique (*stilatura*). Furthermore, all these wall structures show continuous rows of yellowish *bipedales* as well as scaffolding holes at regular intervals on the same level. The original building phase is also characterized by the pre-planned water drainage channels still visible in the brick facings²⁴. In the northeastern part, a series of wall structures differs significantly from the original building phase. They can be attributed to a subsequent phase based on the following characteristics: these structures are not linked with the original walls, and all are built on a different kind of foundation²⁵. Taken as a whole, these structures have a more heterogeneous appearance compared with the original phase: the *sesquipedales* used here are less uniform in colour and size, and the actual construction work shows a more irregular facing. Furthermore, the rows of *bipedales* and the scaffolding holes are not situated at the same levels compared to the original phase; water drainage channels are missing completely²⁶. In addition to the analyses of brick walls and foundations, the large amount of new brick stamps²⁷ enables a more detailed chronology. One important find was brick stamp No. 1 (cf. Appendix) on a *bipedalis* still in situ in the vault of the staircase room 533N²⁸, which gave access to the two upper levels of the palace. Based on the known production date of the brick, the construction of the staircase can be dated at the latest to the beginning of the 2nd century AD, i.e. the original building phase. As the other brick stamps (cf. Appendix: Nos. 2-4) were found in walls of the subsequent phase, which shows here a homogeneous appearance, these constructions can all be dated to the 1st quarter of the 2nd century AD, perhaps even more precisely to around AD 123²⁹.

The analysis in the movement divider 534 and the adjoining spaces enabled the identification of two ancient building phases³⁰. Based on the identification of these building phases the system of room connections seems to have changed considerably over time.

For the original building phase the area can be reconstructed as follows (fig. 4): in between the Domus Flavia and the “no-man’s-land” in the east, corridor 582 ran north to south up to the semicircular apse in space 577. Here, corridor 582 matched up with the passage between the peristyle courtyards of the Domus Flavia and its neighbour, most likely mirroring the architectural solution present to the south (fig. 2: 569-574). Furthermore, from corridor 582, two entrances provided access to the western rooms of the palace³¹. The first, northern entrance is approximately 3.2 m wide and gave access to space 533, divided into two parts (fig. 5). In 533S, two separate internal passages gave access to room 534³². The

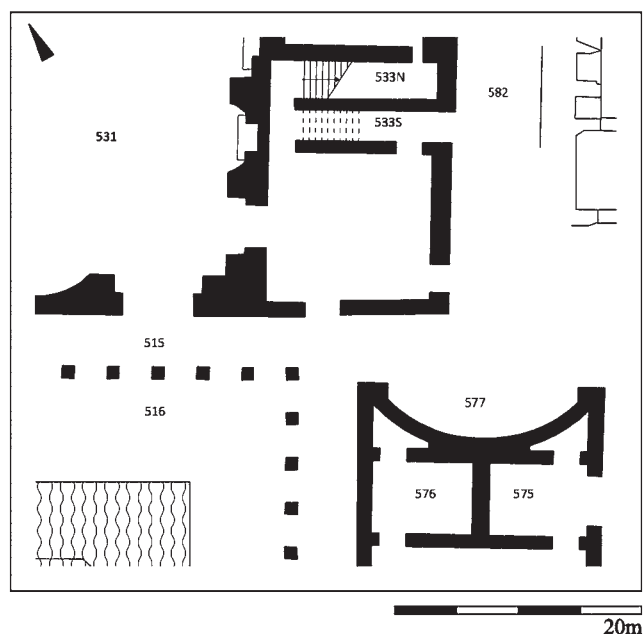


Figure 4 North-eastern part of the Domus Flavia. Plan of the original building phase. Drawing by A. Rheeder, after directions of N. Sojc and L.C. Götz.

second entrance of 582, which is approximately 2.4 m wide, led into movement divider 534 as well (fig. 6). This nearly square room, in addition to the three connections already mentioned, gave access to the southern and western quarters as well, the latter through an even wider opening of c. 3.76 m (fig. 2): an enfilade connected movement divider 534 with the hall-like representation room 531 (Aula Regia) and the western entrance 544; to the south it opened into the portico of the central peristyle courtyard 515.

The alterations of the original layout a few decades after its construction seem to have taken its starting point from corridor 582 (fig. 8) which was divided into several sections through the insertion of narrow wall structures. Thus around the above mentioned entrances to rooms 534 and 533 new spaces, were created: additionally the entrance to room 533 was reduced in size by the insertion of a small extension to its original northeast-wall; contemporaneously its western opening towards 534 was enlarged by a small set of stairs that now led to staircase 533N. Furthermore, the entrance leading from corridor 582 into movement divider 534 was closed off by some of these new structures, the rooms 577-580, which now blocked any movement from the east into the peristyle courtyard; room 534 was thereby also no longer directly connected with one of the main entrances to the palace and lost its original main function of distributing guests through the various spaces.



Figure 5 Entrance to room 533S, seen from the west: The existing entrance is a later reduction of a wider opening from the original building phase. The changes can be deduced e.g. from the remains of the relieving arches. Photo L.C. Götz.



Figure 6 Entrance to room 534, seen from the east. In front: additions from the 2nd century. Photo L.C. Götz.

2.2 Spatial analysis

Now that the general plan of the original building phase has been reconstructed, it is possible to more accurately investigate the northeastern part of the Domus Flavia from a spatial point of view for this period in time. In regard to visibility, movement divider 534 is remarkable in so far that, as one entered and continued to move through this room, then all connections, as well as the Aula Regia 531 and the peristyle courtyard 515, would become immediately visible. The straight sightline from the eastern entrance into room 534 is blocked by the western wall of the room, while the isovist analysis³³ shows that it was possible for the visitor to oversee the entire space. However, it seems probable that the main axial line from this entrance was orientated towards the Aula Regia 531 through the portal-like passage in the west or to the south into the peristyle courtyard 515. Altogether, 534 is a rather straightforward space from an architectural point of view concerning visibility, as it seems that all the spatial connections are nearly equal. Only with regard to the traversability is there a slight hierarchical presence through the graduation of its openings' width (from c. 2.40 m to 3.76 m). In contrast, the main axial line from the east into staircase room 533 runs along the elongated, tunnel-like space, but nonetheless after a few steps into the room it would have been possible to actually look through the southern openings into movement divider 534 and the following spaces. In contrast, the staircase itself in 533N is not visible from any location – only if one would actually turn the corner would the stairs become apparent.

In regard to the depth of rooms 533 and 534 and their integration, the following observations can be made: most important in this respect is their spatial interconnectivity to corridor 582 – one of the supposed main entrances for the Imperial palace, especially to the Domus Flavia (figs. 2 and 7). From room 534 with its five connections, as already stated, the Aula Regia 531 and the peristyle courtyard 515 could be reached, whence one could move on to all the other quarters and the 1st floor of the palace. Indeed, movement

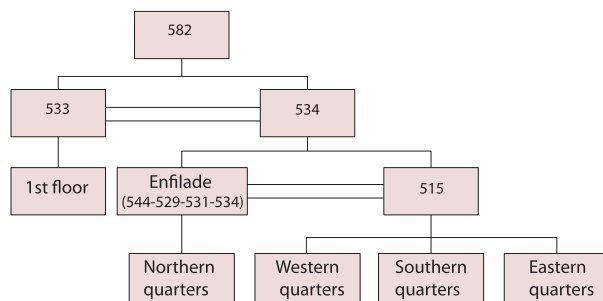


Figure 7 Depth diagram of the rooms in the north-eastern part of the Domus Flavia. Drawing by L.C. Götz.

divider 534 was fundamental for any further movement in the palace due to its good integration and high connectivity. It is likely that the incoming visitors – whether in groups or alone – were distributed in this space to enter the various parts of the palace to engage in their respective social interactions, such as attending audiences or banquets. Therefore, room 534, was the first room one would enter from corridor 582 and the assumed palace entrance facing west, is already responsible for a division of movement based on the purpose of the visitor: on the one hand, one could be led either to the larger halls (530, 531) through the enfilade, or to the smaller, more intimate rooms through the peristyle courtyard. Nonetheless, no matter to which opening one would move, it would always have been possible to look also into the rooms directly adjacent to the other openings. Even if one's actual purpose was to climb the staircase, the impressive state rooms would have been visible for a few moments. As a result, it seems that a visitor could leave the palace without entering all the different spaces, but could look into most of these on his or her way. In the end, it can be concluded that movement divider 534, in connection with staircase room 533, controlled the access into the northeastern part of the palace. However, as described above, the interventions of the later building phase brought about a drastic change to the original movement system³⁴: the original grand scale design in this area – with its grand entrances, sight lines, and movement system – was modified presumably in the 1st quarter of the 2nd century AD, to a more complexly structured area with smaller sectors and passages, which meant a reduced visibility and an increased depth of the internal spaces. A possible explanation for these changes in spatial organization could be that this area of the palace became even more strongly controlled in this later phase (fig. 8).

3 CASE STUDY 2: A SYMMETRICAL SUITE OF ROOMS WEST OF THE PERISTYLE COURTYARD (517-527)

The suite of rooms stands out in the plan due to its symmetrical layout, and contains in its centre one of the original entrances (522) into the Domus Flavia (fig. 2). P. Rosa, the 19th century excavator of this area, located just outside of the palace on the Area Palatina³⁵, one of the central assembly and waiting areas of the palace known from ancient literary sources³⁶. Even though these sources do not allude to any identifiable topography and the term's rightful application to this location is disputable as well, it has remained in use in archaeological literature to denote this open space, which separates the Domus Flavia from the western palace tracts (Domus Tiberiana) and the sanctuary around the Apollo temple to the south. Following up Rosa's argumentation with regard to room functions in the palace, H. Finsen proposed that the central octagonal room 522 was

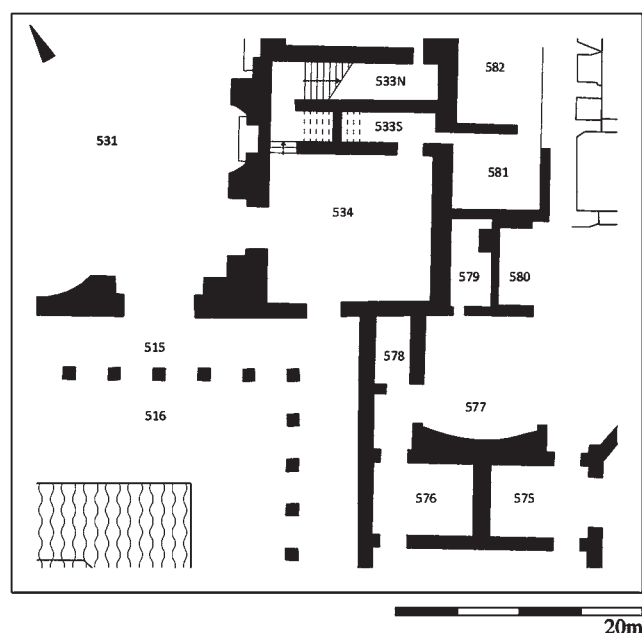


Figure 8 North-eastern part of the Domus Flavia. Plan of the second phase of the 1st quarter of the 2nd century AD. Drawing by A. Rheeder, after directions of N. Sojc and L.C. Götz.

used as a *vestibulum*, a vestibule³⁷. As this room function does not correspond with a specific layout in Roman architecture³⁸, the room was studied solely by us on the grounds of its still examinable archaeological and spatial characteristics. With its four openings, it is also a movement divider, but in contrast to the above-mentioned room 534, it was once also an entrance room adorned with semicircular recesses, which could have been used for the positioning of servants, guards or statues³⁹ and planned to be at the centre of a suite of rooms.

3.1 Archaeological analysis

Based on the internal symmetry in this suite of rooms (figs 9 and 10), between the northern (523-527) and southern (517-521) parts, it was decided to clean in the north only, as it seemed probable that the results from here could be extrapolated onto the southern rooms⁴⁰. In order to establish a dating for the room suite, the brick walls, foundations and brick stamps were analysed. The characteristics of the brick walls, such as the type of bricks used, mortar and wall-core, correspond closely with the walls investigated in the north-eastern part (cf. Case study 1) and thus belong to the same phase identified here as the original building phase⁴¹. For example, the same type of foundation can be recognized by the fact that beneath the brick walls a row of *bipedales* was placed, under which either a layer of basalt can be found



Figure 9 Western part of the Domus Flavia with the peristyle courtyard in its current state of preservation, seen from the north.
Photo L.J. Coret.

directly beneath it, or, in the case of a difference in height, another row of bricks was present⁴². The attribution of the room suite to the original building phase was finally affirmed by the four brick stamps that were recorded for the first time during the campaign: Of these, only one is unreadable; the rest – all different types – can be securely identified and dated to the last quarter of the 1st century AD (cf. Appendix: nos. 5-7, 9)⁴³. Finally, the connections between the outermost spaces (526-527, 517-518) needed to be clarified, and to do so, it was necessary to investigate the demarcation between them, and in addition, architectural characteristics had to be compared. Several cleanings were made, during which it became apparent that the foundations of rooms 518 and 526 did not continue on the same level in the outer spaces 517 and 527⁴⁴. This would suggest that the floor level there was lower than in the rooms. The presence of water drainage channels in these spaces suggests that they could actually have been open to the air, in contrast to the covered rooms in between. This would then explain the difference in floor level, because a lower ground level would assure that rain would not flow into the higher, covered rooms. A further indication that corroborates the difference in floor level comes from the height of the niches in the open-air spaces 517 and 527, where they are placed on a higher level than in all the other rooms, which means that if viewed from these they would appear to be on the same levels as the niches in the other rooms⁴⁵. A further hypothesis involves the presence of four columns⁴⁶ to mark the division between the rooms and the open-air spaces 517 and 527, two in each case, since it would make sense to have more weight-carrying elements present. If the proposal of open-air spaces is correct, it would mean that the roofs of the surrounding rooms would also

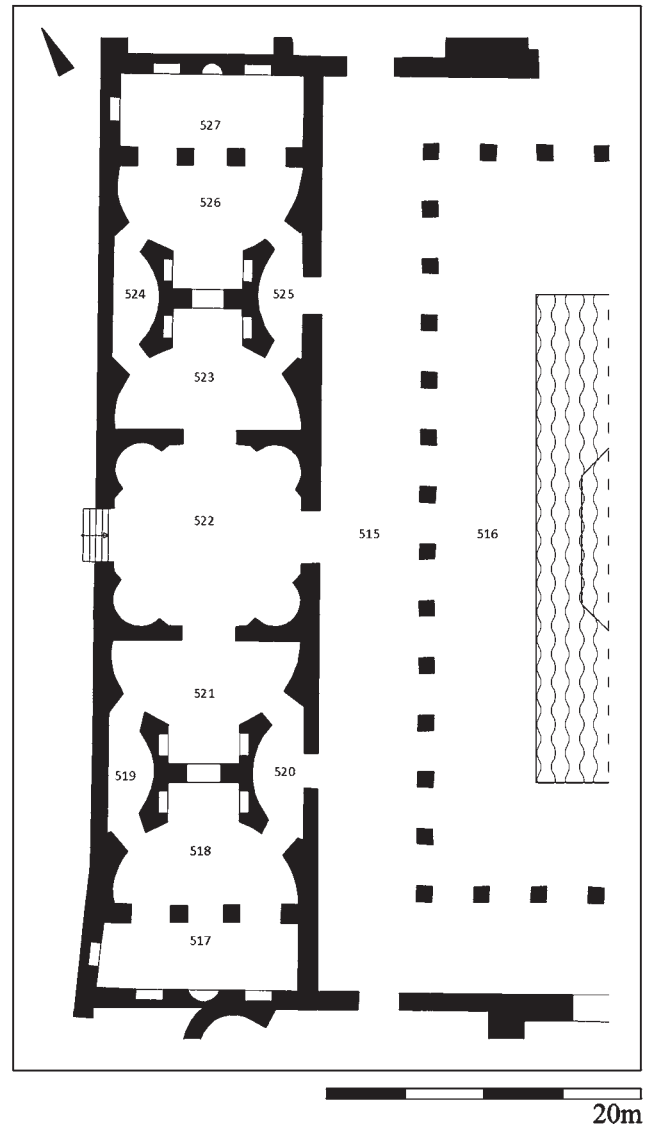


Figure 10 Plan of the western part of the Domus Flavia. Drawing by A. Rheeder, after directions of N. Sojc, L.J. Coret and J. Grinbold.

need to have been carried on the northern and southern sides, which would coincide with the discussed divisions between the outermost rooms and the inner ones, and that the proposed columns would have supported the roofs. Furthermore, in other parts of the palace, columns are known to have formed the division between the open-air spaces and the covered rooms. In the case of the group of rooms adjoining the central court (fig. 2: 590), the columns are placed exactly on the crossings of the division of spaces and the edges of the perpendicular sightline⁴⁷. The same architectural organization is thus proposed for the room suite under investigation here.

3.2 *Spatial analysis*

In the suite of rooms in the west wing of the Domus Flavia are two main axial lines: the first one leads from the outside through room 522 into the peristyle courtyard (fig. 10). The second one is between open-air spaces 517 and 527, through rooms 518, 521-523 and 526, as there are windows between rooms 518 and 521 and between rooms 523 and 526. Entrance room 522 forms the cross-axis, because both axial lines pass through this space (fig. 11)⁴⁸.

Immediately recognizable as corridors are spaces 519-520 and 524-525, since they appear to be too small to have any other function. Furthermore, their narrowness points to a deliberate segregation of spheres. Corridors 519 and 524, which are only connected to two other rooms, do not seem to have played a role in the visibility of the suite of rooms under discussion here. The situation is different for corridors 520 and 525, each of which is not only connected to two other rooms, but also to the peristyle courtyard. Furthermore, these corridors have a continual sightline through their space, while 519 and 524 do not: An preliminary isovist analysis of the connection between room 523 and corridor 525 seems to indicate that it was almost impossible to look from this point into the grand assembly hall, the Aula Regia (fig. 2: 531). However, this is not simply due to the small openings (fig. 10: 515-525); rather, the possible sightline appears to be blocked by the presence of the columns in the peristyle portico (515, 516). Even more curious is the presence of niches in the western walls of open-air spaces 517 and 527, which are not parallel to the eastern sides. This could point to the importance of narrow sightlines from the peristyle courtyard into these rooms through the connections 518-520 and 525-526.



Figure 11 Western part of the Domus Flavia: The visible but not traversable axis seen from room 518 in the direction of the open-air space 527. In front: the window between rooms 518 and 521. Photo L.J. Coret.

The design of the suite of rooms under discussion shows a calculated interplay between visibility and permeability, i.e. the traversability of the spaces. The axial line from outside into the peristyle through the central room (522) is cut off by the fountain in the peristyle court (516). The other axial line, i.e. the sightline between open-air spaces 517 and 527, is also not traversable. Direct pedestrian access is blocked by the walls between rooms 518 and 521, and between 523 and 526, but the above-mentioned windows do however provide a view through them (fig. 11). Between the rooms connected by the sightline, one could only move along the corridors (519-520, 524-525).

With regard to the integration of spaces, the entrance room and movement divider 522 emerges as the central space of this suite of rooms. It is the only room which is connected to all four main parts (exterior of the palace, peristyle, and the northern and southern set of rooms); furthermore, in several locations it was only possible to move from one part into the other through the movement divider, otherwise it was necessary to make a detour, e.g. through the peristyle.

The corridors 520 and 525 are better integrated than 519 and 524, due to their connection to the peristyle. Considered together with the paragraph concerning the niches, the well-integrated corridors do show a sightline towards a niche, whereas the less-integrated corridors do not. Based on the observable differences of integration, it is possible to make a hierarchical distinction between the internal connections of the rooms, even though at first glance they seemed completely similar from an architectural point of view. Taking the northern part as an example: the connection 523-525 is the most integrated, because it forms direct connection between the central room 522 and the peristyle courtyard. On the other hand, the connection 524-526 is the least integrated, because it is neither directly related to movement divider 522, nor to the peristyle.

Finally, if the depth of every space in the room suite is analysed assuming the central room 522 to function as an entrance from the outside, the Area Palatina, it becomes clear that the depth increases as one moves away from it, either to the north or to the south (fig. 12).

Based on the results of the spatial analyses, the following conclusions can be drawn with regard to the role that these spaces played in the movement system of the room suite. Starting once again with the realization that even though the main entrance is through central room 522 and the main axial line runs directly towards the peristyle, it can be concluded that, for anyone entering, attention would probably have gone immediately towards the peristyle, and was thus drawn towards the portico and the fountain. One could therefore ask to what extent the northern or southern set of rooms would have been noticed at all and doubt that guests would have been tempted to follow a minor sightline instead

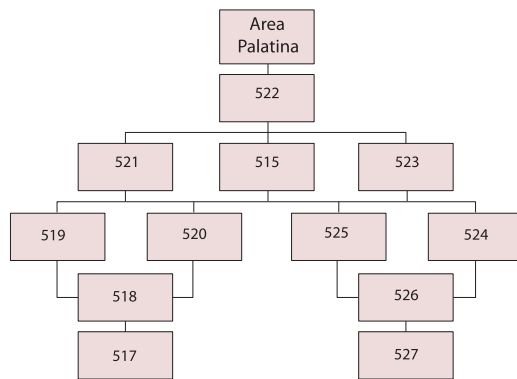


Figure 12 Depth diagram of the western part of the Domus Flavia. Drawing by L.J. Coret.

of the main one⁴⁹. It seems that if someone was specifically told to go into either room, only then would these spaces have become the centre of attention. It can be deduced from the typical layout of rooms 518 and 526 that they functioned as banqueting rooms⁵⁰. These rooms were equally visible from movement divider 522 and the other rooms of the suite along the axial line through the windows as well as from the peristyle courtyard, but they were only accessible from the sides, and not directly. Based on the presence of the niches on only the western side of the annexed open-air spaces 517 and 527, it seems that corridors 520 and 525 were used only as official entrances to the dining rooms. It is striking that these sightlines from the peristyle into the rooms seem to have been of minor importance because of the main sightlines from the peristyle being directed towards its fountain. What does this mean? As a hypothesis it can be suggested that, instead of a deliberate creation to control movement through these rooms, some other spatial arrangements had priorities for the architects, so, for instance the above-mentioned visibility without traversability could also be investigated from a social perspective⁵¹.

4 CONCLUSION AND PERSPECTIVES FOR FURTHER RESEARCH

The examination of two selected areas in Domus Flavia has revealed that the analysis of small rooms within their spatial context can yield a better understanding of the everyday utilisation of a palace tract. As already presented here in the exploratory investigation, which mainly concentrates on a particular phase in the running of the palace at the beginning of the 2nd century AD, two differing concepts of routing layouts could be determined regarding two movement dividers. The room to the north (534) proved to be a functional divider between entrance corridor, upper storeys, peristyle courtyard and representative halls, which

without any additional architectural decoration and with the varying widths of its openings, indicates a hierarchization of the passageways. Spatial analysis confirmed that the movement divider to the west (522), primarily served as an entrance area and connecting room, from whence, with the help of visual stimuli, one would have been virtually ‘swept along’ into the central peristyle. Only as its secondary function did it distribute the visitors into the dining halls, some of whom were perhaps presented only with views through the windows, without being able to enter themselves.

Both movement dividers and adjacent rooms reveal a very conscious knowledge of the principles of visibility and permeability. It can thus be presumed that, through architecture, the ‘visible’ (windows, enfilades) was defined as not necessarily reachable. Since similar situations can also be observed in other areas of the Palatine palace (e.g. the lower level of Domus Augustana⁵²), the desire for a social demarcation suggests it to be the reason for architectural differentiation. The authors of this article feel reminded by this phenomenon of demonstrations of ceremonial as they are first known from early modern times, for instance of the importance at court, pointed out by N. Elias – behind a barrier – of watching the Monarch eating or going to bed⁵³. Such phenomena would still have to be examined for the Roman court, not only through recent reading of written sources but also through broadening the application of micro-spatial analysis on further areas and the subsequent consolidation of this knowledge. Furthermore, it would also be important to systematically further pursue and monitor the chronological development of such areas. Only then could results be evaluated – such as the realization, obtained for the north-east area in the Domus Flavia (fig. 2) examined here, that only a few interventions were sufficient in order to prevent a movement divider from operating – in terms of their consequence for the everyday functioning of the various palace tracts. In a unique sense, the question initially remains open as to whether this palace area was subject only to a stronger physical access control or whether at the same time the uses of the individual tracts (to the west of Domus Flavia, to the east of the “no-man’s-land”) should be more strongly isolated from one another.

The results that answer such questions could also be compared to the descriptive assertions from literary sources. Somewhat like the information in the matter under consideration here that, under Emperor Domitian, access to the ruler was controlled by densely staggered architectural barriers – long corridors, closed doors, endless room sequences – whereas entry to the rooms of his successor Trajan was possible directly⁵⁴, even though both resided in the ‘same palace’⁵⁵. Our exploratory study of archaeological remains points to a different situation at least in the north east area of the Domus Flavia: the original building phase

there – which could tentatively be attributed to the Domitianic reign – was characterized by direct access and easily surveyable spaces, whereas in the following phase – most likely effected by one of this Emperor's successors – large spaces were subdivided into smaller ones, thus making the access to the palace more complicated and less clear to overlook. Clearly, further investigations will be necessary to find out how, in this instance, archaeological and literary sources' information on the usage of space in the Imperial palaces can be reconciled.

Notes

1 Ios. ant. Iud. 19, 117. For the interpretation of this passage cf. Cecamore (2002, 218-220).

2 For the Palatine Hill and the Imperial palace see cf. Giuliani (1982); Papi (1999, 28-30.); Royo (1999); Winterling (1999); Hofmann and Wulf (2004).

3 Stat. silv. 4, 2, 18-31; cf. Gibson et al. (1994, 67-85); Zanker (2002, 110-125).

4 For a general overview of the research of the Domus Flavia see cf. Giuliani (1977); Gibson et al. (1994); Zanker (2002); cf. Cecamore (2002, 230-232).

5 Cf. Bianchini (1738); cf. AA.VV. (1994); Miranda (2000).

6 A special debt of thanks is due to the Gerda Henkel Foundation, which financed and supported the study of the Domus Flavia.

7 For ongoing and fruitful cooperation we wish to thank the Architekturreferat of the German Archaeological Institute, above all Ulrike Wulf-Rheidt as well as Adolf Hoffmann, Jens Pflug and Dörthe Blume. For stimulating discussions we want to thank Heinz Beste (German Archaeological Institute, Rome).

8 This information is in preparation for publication by (among others) Dörthe Blume who is preparing a PhD thesis with the title "Die Baugeschichte der Domus Flavia in Rom" at the University of Cottbus, as well as by Heinz Beste (German Archaeological Institute, Rome) and Evelyne Bukowiecki (University of Aix-Marseille I, Provence) who is preparing an extensive study on brick wall analysis and brick stamps.

9 The spatial analysis of the Imperial palaces on the Palatine by Leiden University is planned to continue for the next couple of years; the present publication is a first preliminary report, which is meant to point out the possibilities of this kind of research. With regard to the spatial analysis we especially wish to thank Hanna Stöger for her questions, comments and practical help.

10 For the discussion about the authenticity of the barrier of the tribunal see Tomei (1999, 291-315).

11 Cf. Bianchini (1738, 225); Bianchini's plan and research status published in Malmberg (2003, 28-43 fig. 6); cf. Tomei (1999, 285-298).

12 Since no direct parallels exist for residential architecture nor for public buildings, and literary descriptions are lacking, the utilisation of the rooms cannot be more closely determined in detail.

13 The authors wish to express their thanks to the Soprintendenza Speciale per i Beni Archeologici di Roma, in particular to Roberto Egidio, for having authorized this research, and to Maria Antonietta Tomei for highlighting its importance. The scientific exchange made possible by them, and Daniela Spadoni has been of inestimable value. For their organizational assistance we wish to thank Maurizio Rulli, Gloria Nolfo and Bruno Angeli. Much appreciation and gratitude goes to the directors of the Netherlands Institute in Rome Bernard Stolte and Gert-Jan Burgers for their invaluable advice and constant help. We also wish to express our thanks to the department of Classical Archaeology of Augsburg University, especially Valentin Kockel and Andrea Schmölder-Veit for their cooperation, as well as to Judith Grinbold who participated in the campaign work. We would like to express our particular gratitude to the German Archaeological Institute in Rome for its technical support. For their productive discussions we further wish to thank Marike van Aerde, Annetta Alexandridis, Christine Ertel, Klaus S. Freyberger, Pia Kastenmeier, Eva Mol, Richard Neudecker, Clemens Voigts and Stephan Zink, as well as the participants of the KNIR guided tour for their comments and questions. We express our thanks to Jonathan Smale for his help with the English language version of this article.

The abbreviations of journals etc. follow the guidelines of the German Archaeological Institute; the abbreviations of the ancient authors and their works follow the guidelines of the DNP.

14 For an introduction in Space Syntax analysis in archaeology, cf. Stöger (2011). For an explanation of the spatial concepts and their associated methodologies, cf. Hillier (2007).

15 The authors wish to express their thanks to the students who have participated in the work: M. van der Boon, A. van der Meulen, B. van der Meulen, J. Splinter, D. Visser and V. van der Werf.

16 During earlier campaigns on the Palatine, these aspects have proven to be of significance for the identification of the chronological position of the constructions. On methodology and results for various areas of the palace see Bukowiecki (2008); idem (2010); Sojc (2012).

17 As the investigation methods can be used mainly for dating in longer periods and because of this being a preliminary presentation of the results, we refrained from an attribution of the palace building activities to reigns of certain Emperors.

18 As the number of spaces under investigation here is relatively small, it was possible to identify a relative hierarchy of integration of the spaces without using computer analyses, cf. Hillier and Hanson (1984).

19 On the discussion of the entrance in the north-eastern part of the Domus Flavia, cf. Finsen (1969, 8f.); Zanker (2004, 96); Mar (2009, 257-261); most recent comprehensive overview presented by F. Villedieu and N. André, cf. André et al. (2004, 119-121 fig. 168). See also Wulf-Rheidt and Sojc 2009.

20 The term was created by H. Finsen during his investigations of the Imperial palace, cf. Finsen (1969, 5). Since 2009 the area is

under investigation by the Università degli Studi “La Sapienza” Roma (P. Carafa and A. Carandini), but results have yet to be published.

21 Cf. Dutert (1873, 105 note 14 tab. 2, F).

22 The analysis of the brickwork is based on the results of E. Bukowiecki, cf. Bukowiecki (2012). The Flavian foundation on the eastern side is located at a very deep level. With the exception of the few locations on the site where this foundation remains uncovered, it was not found in the cleanings of about +/- 10cm depth. The analysis and chronology of the foundations in *opus caementitium* with basalt as the main component (the other one is tuff) is based on the foundation research in the Domus Augustana by M. Fink and P. Wech, cf. Fink and Wech (2012).

23 The Roman brick production consists of several standardized forms and sizes: the bricks used in the constructions here under investigation are sesquipedales and bipedales. The first type with a length of c. 45 cm (sesquipedales = 1.5 Roman feet) was split into smaller pieces and installed in the wall facing. The second type was used unbroken (c. 60 cm = 2 Roman feet) at problematic static positions like e.g. floor preparations and relieving arches.

24 The wall constructions in the southeast (569-574) are less well preserved: in several instances only a few lines of bricks of the original structure are still in situ and the post-antique restorations, as well as the modern paths laid out for the visitors, hinder any investigation of these.

25 Our cleaning has clarified the type of foundation, which here consists of brick-faced walls and a row of bipedales on a higher level in comparison with the deeply located foundations of the original phase.

26 All the wall structures under investigation still have preserved traces of revetment deriving from different phases which refer to the once luxurious interior. Because it was not studied systematically it was not taken into account in the spatial analysis.

27 Even though the general state of preservation is rather poor, it was possible to identify 40 out of 65 in the northeastern part (cf. Appendix: Nos. 1-4, 9). A catalogue of brick stamps retrieved in the campaigns 2010 and 2011 is in preparation by E. Bukowiecki.

28 Cf. Appendix: No. 1. The same type was found in a part of a wall-nucleus, which, as can be concluded from the same composition of the cement, probably once belonged to the vault of the staircase as well.

29 The stamps were nearly all found on *sesquipedalis* that were part of the brick facing, cf. Appendix: Nos. 2-4.

30 It was also possible to tell apart the traces of modern interventions in this tract, i.e. of the buildings that had re-used the ancient walls but were themselves demolished completely when the Palatine was excavated at the end of the 19th and beginning of the 20th century.

31 Another entrance for the north façade 535 is still under discussion, although the reconstruction of a direct passage way from the outside over stairways into the grand northern halls has been given up, cf. Zanker (2004, 114-116); Mar (2009, 257-259 fig. 4).

32 The staircase room 533 and movement divider 534 were already connected by two openings in the original building phase (fig. 4): the partition wall between the two is only original in the western part, the eastern side is completely restored (passages with width of c. 2.34 m and c. 3.24 m). However, the presence of a pilaster, which is connected to the east wall of 533 and 534 of the original phase, proves the presence of a passage in this location (the diagonal position of the uppermost brick points to the presence of a relieving arch in this phase).

33 It is important to make a distinction between the main axial line and the isovist within a certain space: The former is the main line of sight from a certain point; the latter is everything that is visible from a certain point in a certain space (360 degrees around the chosen location).

34 The newly created rooms 577, 579 and 580 blocked indeed the main eastern entrance into room 534, but seem to have provided some smaller passages among each other and partly also to room 534; however, these were closed off again after a short period as the date of the brick stamps suggests (cf. Appendix: Nos. 2-4).

35 Cf. Tomei (2000, 28-32); André et al. (2004, 120); Mar (2009, fig. 3). For the Area Palatina see Torelli (1993).

36 Gell. 20, 1, 2.

37 Cf. Finsen (1969, 9f.).

38 Cf. Speksnijder (in preparation), *passim*.

39 Cf. e.g. the so-called Palazzo delle Colonne in Tolemaide, cf. Pesce (1950) *passim*.

40 The small differences between the architectural layout of the two parts that can be observed, seem not to be significant for the spatial analysis.

41 Parts of the eastern wall of rooms 523 and 526, as well as a large part of the walls of room 525, are later restorations. However, there are no indications to assume that these restorations altered the original layout of the rooms, especially because the layout in the original brickwork is preserved in the southern wing (cf. rooms 518-520-521). Traces of later wall revetments have only been recorded in room 526.

42 Based on homogenous appearance of the foundations and their correspondence to one of the foundation types, which was in use at the beginning of the 2nd century AD as has been established by Martin Fink and Pierre Wech, cf. Fink and Wech (2012), a dating to the original building phase seems to be corroborated.

43 Cf. Appendix: Nos. 5-7, 9. Two of these were found on *bipedales* which were part of the original floor level in room 525 (partitioning 525-526); one brick stamp was found on a *bipedalis* in the south-western wall of room 526 (partitioning 524-526); another brick stamp was found in the northern wall of room 523 (partitioning 523-526).

44 Due to the limited scope of the 2012 research campaign, the foundations of the outermost rooms were not recorded in detail, although in the southern set of rooms a row of *bipedales* was found at a depth of 20 cm. This row is visible through one of the water

channels cut into the outer wall, the ground level of which on the outside is on a considerably lower level.

45 These observations and deductions in regard to the niches we owe to J. Grinbold who is preparing a Master thesis on the topic with the title “Die Nischenarchitektur der *Domus Augustana inferiore* auf dem Palatin in Rom” at Augsburg University.

46 There are two columns present in the plans of F. Coarelli, cf. Coarelli (1974, 136-7) and of I. Gismondi, published Sojc and Winterling (2009, fig. 1). Further research on this issue will include archive research, e.g. on the excavations of Giacomo Boni, cf. AA.VV. (1994, 103 fig. 104).

47 There is exactly enough space for a single column placed on a base of c. 90 cm between the end of the window and the beginning of the inner north-south orientated wall.

48 This means that the room itself is never the centre of attention, but rather it provides the open space needed for both axial lines, cf. e.g. Newsome’s (2009, 33; with reference to Varro *ling.* V 11-2) discussion on the two types of centrality in the urban landscape which is also applicable here: movement divider 522 is a room which visitors move *through* (i.e. to get from A to B), but which they do not move *to*, i.e. it is not a destination in itself as for instance the dining rooms are.

49 It has been observed in urban contexts that visitors who are not familiar with certain urban zones are tempted to follow the main sightlines and avoid the smaller connections between them, even if these would save them time, cf. Hillier and Hanson (1984, 17); Lynch (1960, 54). It seems logical to expect a similar response to the movement through internal space as well.

50 Cf. Sojc (2009); Sojc and Winterling (2009) and Sojc (2012) on the typical layout of dining rooms.

51 This point will be expanded on elsewhere.

52 Cf. Sojc (2005).

53 Cf. Elias (1969: 144-183).

54 Plin. paneg. 47, 5: *Quod enim forum, quae templa tam reserata? ... Nullae obices nulli contumeliarum gradus superatisque iam mille liminibus ultra semper aliqua dura et obstantia.*

55 Plin. paneg. 48, 3: *in communi domo*. Plin. paneg. 49, 2: *eadem domus*.

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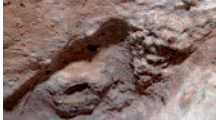





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Appendix Catalogue of brick stamps recorded during the Domus Flavia 2012 research campaign							
N° of brick stamp and photograph ¹		N° CIL	Text	Location ²	Quantity	Date ³	Information
1		153	L·VALERI O D SEVERI	533N-n	1	Beginning of 2 nd century AD	Brick type: bipedalis Stamp shape: tabula ansata
2		563	PAETINO ET APRONIA M VINIC PANTAG SVLP (or variant)	579-e	1	AD 123	Brick type: sesquipedalis Stamp shape: rectangular
2a		563a-k	PAETINO ET APRONIA M VINIC PANTAG SVLP (or variant)	577-ne 577-nw 579-se	1 1 1	AD 123	Brick type: sesquipedalis Stamp shape: rectangular
2b		563n-q	SVL M VINI PANTAGA PAETI ET APRON COS (or variant)	579-se	1	AD 123	Brick type: sesquipedalis Stamp shape: rectangular
3		565	VIN PAN SVL xx (or variant)	533S-e 577-ne 577-se 580-n 580-s 580-w 578-w 582-s	7 1 1 2 1 1 9 3	c. AD 123	Brick type: sesquipedalis Stamp shape: rectangular without margins
3a		565e ⁴	VIN PAN SVL IO	533S-e 533S (staircase)	1 1	c. AD 123	Brick type: sesquipedalis Stamp shape: rectangular without margins

3b		565l	VIN PAN SVL VA	582-s	1	c. AD 123	Brick type: sesquipedalis Stamp shape: rectangular without margins
3c		565var.	VIN PAN SVL PI	580-s ⁵	1	c. AD 123	Brick type: sesquipedalis Stamp shape: rectangular without margins
3d ⁶		565	VIN PAN SVL xx (or variant)	533S-w 579-sw 580-w	1 1 1	c. AD 123	Brick type: sesquipedalis Stamp shape: rectangular without margins
4		578a	TI CLA BLA SVL	578-w	1	c. AD 117-138	Brick type: sesquipedalis Stamp shape: rectangular without margins
5		1000a	PRIM ¹ GEN DVO DOMITIOR·S _E R·F	526-swn	1	AD 60-93	Brick type: bipedalis Stamp shape: rectangular
6		1094h	CN DOMITIVS (palm twig) ARIGNOTVS·F	525-w	1	c. AD 75-100	Brick type: bipedalis Stamp shape: orbicular
7		1449a	(palm twig) L·SEXTILI·RVFI (palm twig)	525-w	1	c. end of 1 st century AD	Brick type: bipedalis Stamp shape: orbicular
8		Anepi- graphic	None	579-s ⁷ (restored)	1	After c. AD 138	Brick type: sesquipedalis Stamp shape: circular

9		Unidentified	Unkown	523-n	1	Unknown	Brick type: bipedalis (523-n); sesquipedalis (rest) Stamp shape: orbicular/circular (523-n); rectangular without margin (rest)
				533S-e	11		
				533S-w	1		
				577-ne	2		
				577-w	1		
				578-e	4		
				578-w	6		

1 Displayed are the most representative finds as stand-ins for the different brick stamps. Photographs, rubbings and mouldings: 1, 2/2a, 3a, 3b, 8 (L. Götz); 2b, 5 (M. van Aerde); 3, 3c, 3d, 4, 6, 9 (L. Coret); 7 (M. van der Boon).

2 The location's specification is built up out of: room specification and respective wall based on wind direction, cf. fig. 2#.

3 In our campaign report the date is given according to CIL.

4 Known as JO in CIL; however, it looks more like a prolonged I. Furthermore, the letter J was not part of the Roman alphabet, therefore this identification cannot explain the original text.

5 CIL XV, 1 does not mention this stamp, but its categorization system allows the addition of new finds to the 365 group on the grounds of the basic text similarities.

6 Under 3d all those brick stamps are assembled of which only two letters are legible. As these are very characteristic in shape, it is most probable that they belong to the CIL N° 365 group.

7 The brick is part of a modern restoration of the ancient wall.