**Bits and Pieces. Wall Paintings in the Late-Antique Urban Mansion of Sagalassos (Ağlasun, Burdur – Turkey)**

*(Taf. LXXIX–LXXXI, Abb.1–10)*

**Abstract**


Questa residenza elitaria è stata costruita alla fine del quarto–inizio del quinto secolo d.C. in una zona che era stata occupata al più tardi dal II sec. a.C. Nel corso dei secoli questa casa fu riparata, ricostruita e ampliata, sino alla tarda Antichità quando appariva come una grande dimora molto lussuosa, composta di una zona privata e una parte pubblica. Nel sesto secolo d.C. parecchie zone della casa furono suddivise, mentre molti spazi vennero trasformati in magazzini e zone rurali. Anche dopo che Sagalassos fu colpito da un forte terremoto all’inizio del settimo secolo d.C., l’occupazione del ‘Urban Mansion’ sembra essere continuata, almeno in qualche area dell’edificio fino alla metà del settimo secolo.

Quest’articolo presenta le testimonianze di pitture murali del ‘Urban Mansion’ di Sagalassos. Queste comprendono i frammenti rimasti *in situ* e frammenti fuori contesto. Accanto a qualche frammento figurativo (per esempio figure vegetali e umane), si sono conservati soprattutto piccoli frammenti (molti) colorati e parti di pitture “architettoniche”. Nonostante il loro stato di conservazione frammentario, queste pitture danno un’idea della ricchezza originale della decorazione. E’ chiaro che le pitture murali facevano parte di un programma decorativo molto sontuoso che ampliava l’importante architettura della casa tardo antica. Per di più, le pitture erano – insieme ai mosaici, decorazione paretale in marmo, statue e fontane – chiaramente utilizzate dal proprietario come un mezzo di auto-rappresentazione e con lo scopo di impressionare.

Il nostro articolo presta attenzione, inoltre, agli aspetti tecnici delle pitture murali del ‘Urban Mansion’ (per esempio pigmenti e tecnica pittorica) (da V. Muros) e si concentra sugli aspetti di conservazione degli intonaci e delle pitture sottolineando la collaborazione tra archeologi e conservatori nel campo (H. Kökten).

**I. Introduction: The ‘Urban Mansion’ of Sagalassos**

The Pisidian town of Sagalassos is located in the Taurus Mountains on a south facing mountain slope at 1400–1600 m above sea-level, and is situated ca. 100 km to the north of Antalya (South-West Turkey).
(Abb. 1). Since 1989 the ancient city and its territory have been the subject of systematic interdisciplinary investigations by the KU Leuven (Belgium), led by M. Waelskens (1989–2013) and J. Poblome (current director). This research has allowed reconstructing the general urbanisation process of Sagalassos between the Hellenistic Period and the 7th century AD.

Within the framework of the study of private architecture and housing in the ancient town of Sagalassos, a large mansion in the Eastern Residential Quarter of the city is currently under investigation (Abb. 2–3). The occupation history of this ‘Urban Mansion’, which has been excavated since 1998 under the supervision of I. Uytterhoeven, goes back to at the latest the 2nd century BC. After this, in the early 1st century AD a peristyle dwelling was constructed in the southern part of the excavation area (Courtyard 13), which was later on, between the late 1st–early 2nd century and 3rd centuries AD, further extended with new spaces. These included a second private courtyard (Courtyard 25) and a private bathing complex that was, subsequently, entirely rebuilt in the 4th century AD (Spaces 9, 10, 15 and 16). In addition, a second peristyle dwelling was built a bit further southwards in the Roman Imperial Period.

However, the building reached its largest extension in the late 4th–early 5th century AD, when a palace-like elite complex was constructed, provided with a northern representative area, a southern private wing and several service spaces. Whereas the ‘public’ wing of the building with its numerous reception spaces (e.g. Spaces 46 and 22), vestibules (e.g. Spaces 56, 17 and 35) and central atrium-like hall (Space 45) was entirely built ab ovo, the southern private section enclosed pre-existing structures, including three private courtyards and the 2nd–4th century AD bath complex, as well as various newly-added southern spaces (e.g. dining hall 40). The new residence was arranged on at least eight terraces, with the upper floor of each terrace corresponding with the ground level of the next, higher terrace. Thus far 88 spaces have been excavated. With its impressive architecture and rich decorative program the residence was clearly in line with contemporaneous dwellings belonging to elite inhabitants, including bishops, governors and other upper class citizens (e.g. Xanthos, Aphrodias, Halikarnassos).

At the least from the mid 6th century AD onwards several spaces of the late 4th–early 5th century AD ‘Urban Mansion’ were not only subdivided, for instance by blocking doors and porticoes, but also underwent functional changes. For example, in two rooms of the bathing complex the hypocaust system was removed. In this way the ‘Urban Mansion’ lost its previous luxurious character. Spaces in both the private and the representative area were transformed into storage rooms and/or got a more ‘ruralised’ character (e.g. representative Room 46, Courtyards 25 and 33). New features, such as hearths and cooking places (e.g. Room 56, Courtyard 69), a limekiln (‘Atrium’ 45) and animal troughs (Courtyard 25), point towards a continuing occupation, but one of a totally other kind than in the late 4th–early 5th century AD.

Finally, as attested by new floor levels created on top of collapse material (e.g. Vestibule 56, Corridor 59), housing activities in the area of the late antique Urban Mansion continued after the heavy earthquake that struck Sagalassos in the early 7th century, until occupation in the area came to an end around the middle of the 7th century AD.

II. Wall plasters and Paintings in the Sagalassos ‘Urban Mansion’ – The Evidence

Apart from providing data on the evolution of private house shapes, building materials and construction techniques applied during its long occupation history, the ‘Urban Mansion’ of Sagalassos reveals how the upper class inhabitants made – especially at the residence’s ‘height’ in the late 4th–5th century AD – use of

---

3 Cf. Waelkens 2002; Waelkens 2004; Waelkens et al. 2006; Martens accepted.
4 Cf. Uytterhoeven et al. 2010.
6 For this bath; cf. Uytterhoeven – Martens 2008. The bathing rooms are also discussed in Uytterhoeven 2011 and 2012.
7 For this type of elite residence, cf. e.g. Downey 1993; Ellis 1997; Ellis 2004; Scagliarini Corlaita 2003; Özgener 2007.
8 De Cupere et al. 2008.
rich decorative programs to embellish their private urban dwellings. This decoration consisted of statuary, water features, mosaic and opus sectile floors, as well as wall decoration, including revetments in marble and coloured stone (Room LV), and paintings. Unfortunately, of this once rich decoration only few remains have been preserved, both in situ and out of their original context.

State of Preservation

Concerning the plasters and paintings that were applied on the walls of most spaces of the ‘Urban Mansion’, the major part of the preserved material consists of small fragments that have been recovered from the collapse layers of the building. These pieces generally vary from fragments of 1 by 1 cm or even smaller, to larger parts, up to ca. 15–20 cm. Save for pieces that have been found in clear association with walls, the origin of the fragments, either related to rooms under excavation on the ground floor, or belonging to the wall decoration of spaces on the – collapsed – upper floors, is not evident.

On the other hand, the wall plaster fragments excavated in situ form the smallest group of evidence. Most in situ wall plaster sections occur in more protected areas, such as wall niches. Examples include niches in the private bath complex and an adjacent space in the north (east wall of Room 9; south wall of Room 14), as well as one in the north wall of the eastern Courtyard 25. Also the niches on the northern wall of the private dining hall 40 had some wall plaster in situ. Besides, other fragments have been preserved in the lowest sections of the walls, close to the floor levels, or in corners of spaces, where they were less exposed.

The relatively small amount of in situ wall plaster recovered during the excavations is the result of various factors. The quality of the wall plaster, characterized by a lime rich content, largely reduces its survival chances, since the plaster dissolves and crumbles due to rain and snow water draining through the soil, especially during the strong and snowy winters the area suffers from. In addition, the vertical position of the wall plasters makes them extra vulnerable. Apart from this, destruction of the wall plasters often already took place in ancient times, which make them less stable. Factors, such as the extended occupation history of the building and the long exposure of the fragile paintings, play an important role as well. Finally, the collapse and taphonomic processes the building underwent after its abandonment had a negative effect on the state of preservation of the wall plasters and paintings. Nevertheless, the actual presence of wall plaster/painting remains in the collapse layers suggests that part of the walls did keep their wall decoration until a late moment in time, and that some of the paintings only started to deteriorate once the collapse of the building had set in.

Typology of the Wall Paintings

The wall plaster uncovered thus far in the Urban Mansion had either a functional or a decorative purpose.

‘Functional (Structural) Wall Plaster’

Nice examples of ‘functional (structural) wall plaster’ have been preserved in the large private dining space of the 4th–5th century AD building phase (Room 40 – Abb. 4). A thick white plaster coating is still attached on the basin walls of the – presumably symmetrically constructed – nymphaeum that was positioned against the east wall of the dining hall and formed the focus point for visitors entering the space via the entrance in the west (a small northern basin and a central, larger basin are preserved). Similar plaster covered the walls of the adjoining Room 67 which by means of a large water supply channel in its northern wall and water pipes through its west wall provided the nymphaeum of the dining hall with water. However, further analysis of this plaster is needed to confirm its presumed hydraulic character.

---

10 For water-related features as luxury elements; cf. Uytterhoeven in press b.
11 For the mosaic floors of the ‘Urban Mansion’; cf. Uytterhoeven et al. in press.
Decorative Wall Plaster

However, most wall plaster and painting fragments excavated in the ‘Urban Mansion’ had a decorative function. Coloured pieces have been found all over the building, in both the representative and the private area. The decoration patterns range from plain, over geometrical, to figurative.

The small coloured fragments mostly give only a rough idea of the colour palette that was applied in a certain space. For instance, in Courtyard 13 white, red, green and purple seems to have been the prevailing colours. In Room 35, the first vestibule of Dining Space 22, the walls were executed in yellow, blue, red and black, while multi-coloured (geometrical) motifs in green, red, yellow, and light blue, decorated the walls of Room 17, the second vestibule. Finally, the actual dining space, Room 22, had an equally polychrome décor in blue, red, yellow, green and pink.

For some spaces, however, the wall plaster pieces allow an – at least partial – reconstruction of the wall decoration patterns. Examples include fragments of the geometrical paintings of the late 4th–early 5th century AD representative ‘Atrium’ 45, consisting of plain coloured pieces and fragments with stripes in white, brown-red, purple and black. On the other hand, the wall paintings that once decorated the eastern private courtyard (25) and its arcaded galleries (33) are nice illustrations of both geometrical and figurative paintings. On the north wall of the courtyard, which had a niche, white wall plaster remains were exposed in situ. In addition, hundreds of plain coloured pieces (light blue, yellow, purple, green, red), as well as several geometrical and figurative fragments, have been recovered in the collapse layers. These include orange, black, red and light blue pieces decorated with rhomb, triangle and line patterns, fragments with floral motifs in light and dark blue, dark purple, orange and white (Abb. 5), pieces with a sandaled foot and a fragment with a human face.

More in situ wall paintings have been found in association with the northern wall of private dining room 40. This symmetrically-constructed wall was provided with two rectangular niches flanking a semi-circular one. The red wall plaster, still in situ on the back wall of the central half-round niche, the wall painting fragments found in the lower sections of the wall (yellow with unreadable red characters), as well as the loose pieces in white, green, and red give an idea of the type of paintings applied here.

In a number of spaces various wall decoration techniques were combined. For example, in Room 10, the caldarium, marble crustae covered the half-circular warm water basin in the south and the lower wall sections of the bathroom, whereas wall paintings were applied in the upper zones of the walls12. The predominant blue pieces found here indicate that matching colours were used for both the wall and floor decoration, which consisted of a blue-dominated mosaic. A similar combination of paintings and wall revetment seems to have been applied in Nymphaeum 19 on Courtyard 13, where the lower part of the walls were marble-clad and the upper levels had wall paintings in white and red. Furthermore, crustae and wall paintings (here mainly blue-green coloured) were also combined in Staircase 36.

Dating Issue of the ‘Urban Mansion’ Wall Paintings

Unfortunately, the dating of all these loose and in situ wall plaster fragments, both structural and decorative, is extremely biased by the long building and occupation history of the ‘Urban Mansion’. Concerning the wall plaster pieces associated with walls built during the earlier building interventions of the residence, it is not always clear whether they belonged to the original wall decoration or were only applied during later building, extension and repair activities. For instance, the wall paintings of Courtyard 25 may go back to the original construction date of the courtyard in the 2nd or 3rd century AD, may have been applied during later renovation interventions or may even be the result of refurbishments carried out when the space was incorporated in the new late antique residence in the late 4th–early 5th century AD. Similarly, the wall paintings

12 Also in the late antique ‘Terrace House’ at Antandros the bathrooms had painted walls. Here the apodyterium had a wall decoration consisting of panels imitating marble slabs divided by Ionic columns, while the tepidarium was decorated with blue-veined white imitation marble slabs in a green frame. Cf. Polat – Polat 2006, 90 f.; Polat et al. 2007, 47.
decorating the private bath complex may either have been applied in the 4th century AD when the walls of the original bath were rebuilt, or have been repainted in the time of the construction of the large late antique mansion or even during later re-decorations.

Nevertheless, in some cases more precise – at least relative – chronological data are available. One of the best preserved and most striking wall paintings in the ‘Urban Mansion’ is the interior decoration of a niche north of the private dining hall 40 (L.: 0.68 m; maximum H.: 0.82 m; D.: 0.36 m) (Abb. 6). Its white-coloured back wall was decorated with a red-coloured wreath with two knotted ribbons, surrounding a red chrismon, while red garlands were applied on both interior sides of the niche. Building materials and techniques, combined with pottery dating, place the construction of the wall with the niche in the 4th century AD. The chrismon clearly fits in this time frame, since this and other Christian symbols have also been found on other objects in the mansion. Besides, examples of chrismon representations are also known from other contemporary house contexts all over the Empire (e.g. Hinton-Saint-Mary and Frampton in Britain).

Further confirmation for a 4th century AD dating can be deduced from later building activities in the residence. When a new dining space (Room 40) was built in the south as part of the late 4th–early 5th century AD interventions in the area, the above-mentioned northern wall with niches of the new large hall was constructed against the south profile of the wall with the ‘chrismon-niche’, which consequently went out of use.

To the same late 4th–early 5th century AD construction phase dates the private peristylium yard 69 on the – currently – second lowest, southern terrace of the residence. Thanks to the numerous wall plaster fragments that were found in relation to the back walls of the porticoes of the peristylium, it is possible to get an idea of the general decorative scheme applied in this space. The numerous polychrome pieces, many of them with line motifs (e.g. light green, black, yellow, red-white, light blue-white, black-red-yellow, yellow-red) suggest that the walls were subdivided in multi-coloured panels that must have been placed above a socle zone (Abb. 7a–c). However, due to the fragmentary character of the paintings, the original sequence of the coloured fields can no longer be retraced. In spite of this, it is clear that the polychrome panels framed large figurative images, possibly mythological scenes, as well as garden representations (Abb. 8a–c). In addition, fragments with bead-and-reel motifs and pieces of other architectural elements allow the reconstruction of the upper part of the architectural frame (Abb. 9).

Tripartite schemes consisting of a socle, central zone and entablature are in line with wall paintings in contemporaneous elite dwellings in Asia Minor. The panels of the socle and central zone of these ‘architectural’ paintings generally imitated marble revetment, and were, moreover, often subdivided by two-dimensional imitation half-columns. Examples are known in late antique dwellings at Sardis, in the ‘Terrace House’ of Antandros, in the ‘Casa del cortile dorico’ and the ‘Casa dei capitelli ionici’ at Hierapolis. In some cases, such as in the ‘Casa del cortile dorico’ at Hierapolis (Sala A 1207) and the ‘Terrace House’ at Antandros (Room 1), human representations, possibly comparable with the figures in the ‘Urban Mansion’, were inserted in the central panels.

**Graffiti**

As is well-known from wall paintings all over the Roman World, inhabitants and/or visitors often left their traces by scratching graffiti on the painted walls of private houses. In the ‘Urban Mansion’ at Sagalassos several graffiti were incised on the walls of Peristylium Courtyard 69. For instance, on a green-coloured wall plaster fragment found in the collapse layers associated with the east wall of this peristylium the head of

---

a male figure was inscribed (Abb. 10). The cowlick in his hair clearly suggests that the graffito was intended as a caricature, possibly engraved by a guest waiting to be allowed to the host in the reception spaces.

III. Technical Data on the ‘Urban Mansion’ Wall Paintings

In 1998 some wall plaster fragments of the ‘Urban Mansion’ were studied in detail by V. Muros as part of the analysis of Sagalassos wall paintings, including examples of the Bouleuterion-Church complex and the large public bathing complex. The pigments were identified by means of a scanning electron microscope with energy dispersive x-ray analysis (SEM/EDX), completed with further examination by binocular and polarised microscope. This investigation revealed that for the wall paintings at Sagalassos commonly-used pigments were applied, which are also mentioned in the ancient written sources (e.g. Plin., Nat. Hist. 35, 12–32; Vitr. 7, 7). These included yellow ochre (yellow), red ochre (red), green earth (green), Egyptian blue (blue) and calcium (white)17.

In addition, microscopic analysis and solubility tests were carried out on the Sagalassos wall painting samples in order to investigate whether the pigments were applied by means of the a fresco technique, i.e. on damp plaster allowing the pigment particles to be bound by calcium carbonate crystals, or by using a binder (a tempera)18. This analysis made clear that the pigments of the tested fragments from the ‘Urban Mansion’ had all been applied by way of a binder.

Future archaeometric research, however, is required to complement and refine these – thus far limited and rather general – technical data.

IV. Wall Paintings in Context: Wall Paintings Used as a Medium for Impression and Self-Representation

Although only a limited section of the painted wall decoration of the late 4th–early 5th century ‘Urban Mansion’ has been preserved, the recovered fragments, both the in situ and the loose parts, are important indicators for the way the late antique élite used their private dwellings as a medium to impress and exhibit wealth and power. The imposing effect of the private house was reached by means of an impressive architecture and reinforced by decorative elements.

In line with general evolutions in the élite house architecture of the 4th and 5th century AD, visitors entering the ‘Urban Mansion’ of Sagalassos had to follow a complicated path leading them from the entrance via several transition spaces and vestibules to the main reception rooms of the building. Similar ‘broken’ paths full of surprise effects, largely based on vistas and view axes, are known in other contemporaneous upper class dwellings, such as the ‘Residence on the Lycian Acropolis’ at Xanthos and the ‘Triconch House’ (so-called ‘Bishop’s Palace’) at Aphrodisias. According to this architectural principle the most important spaces were located at the end of the path, forming thus the climax of the visit19.

Although not enough material has been preserved to fully compare the decoration of the main spaces and that of secondary rooms, in accordance with other known Imperial and late antique examples20 it can be presumed that rooms with a more representative function had the most elaborate wall paintings, whereas side-rooms and service areas were decorated in a more simple, modest way. This presumption seems to be supported by the occurrence of plain, monochrome fragments in less accessible spaces, whereas polychrome wall plaster pieces, suggesting an architectural framework with panels, possibly imitating marble revetment, occurred in the more ‘public’ zones.

17 Recently, several new analyses of Roman wall painting pigments, revealing similar identifications, have been carried out; e.g. at Pompeii (cf. Aliatis et al. 2010); Southern Italy (cf. Baraldi et al. 2007).
18 For these techniques; cf. Strocka 2007, 304. See also Vitruvius’ description of the fresco technique (VII.3).
19 For this aspect of the late antique élite residence and, in particular, the ‘Urban Mansion’ of Sagalassos; cf. Uytterhoeven 2007; Uytterhoeven in press a.
Moreover, in line with (late) Roman traditions\(^\text{21}\) the wall paintings in the ‘Urban Mansion’ were deliberately selected to match the floors, which were similarly in accordance with the importance and function of the space in which they were applied\(^\text{22}\). Additionally, other decorative elements, such as statuary and fountains, could emphasize this hierarchy even more.

Mosaics in opus *tesellatum*, typified by a sophisticated polychromy and elaborate interlacing bands and guilloches, thus occurred in spaces that could be easily visited and were intended to impress visitors. The complex floors in these rooms were complemented by polychrome paintings on the walls, as was the case in Waiting Room 56, Corridor 58 and Audience Hall 50. Similarly, the function of entrance and reception area fulfilled by Peristyle Courtyard 69 in the south was emphasized by its – now disappeared – mosaic floors and by its wall decoration consisting of human representations inserted in the architectural framework.

More plain polychrome floors occurred in vestibules (e.g. 35) or other spaces which were less accessed, such as Room 60. These rooms had colourful walls as well.

On the other hand, the actual main audience and dining areas, such as Audience hall 46, Room 51 and Dining Hall 22, had opus *sectile* floors (not preserved in situ). This type of floor decoration could be combined with polychrome wall paintings (e.g. Room 22), or with – even more imposing – sham architecture in marble and coloured stone (e.g. Room 51).

Finally, spaces with a transition function, such as corridors, staircases and the so-called ‘Atrium’ 45, were paved with purple schist slabs, while their walls were decorated with apparently rather homogenously coloured paintings.

Apart from this, the wall painting fragments of private Courtyard 25 and its galleries 33 give us an idea of the rich decoration of one of the least accessible areas of the residence. Given its position at the end of the path, this space must have had a closed and private character, only accessible for selected guests and close friends.

**V. Conservation of the Sagalassos Wall Plasters and Paintings**

Wall plasters and paintings recovered during the Sagalassos excavations are subject of on-site conservation treatment carried out by a team of ‘archaeological conservators’ from Ankara University, who have been involved with the project under the supervision of H. KOÇTEN since 2005. The work of the on-site conservation team involves conservation techniques, both prevention and intervention, to preserve immovable archaeological finds. This includes the *in situ* consolidation, stabilization of wall plasters and paintings and the conservation and restoration of mosaic floors, as well as the cleaning and consolidation of immovable finds such as tiles, terracotta water channels and architectural stone. Besides, the conservators consult archaeologists during the lifting of all fragile and unstable movable archaeological finds when necessary.

As mentioned above, at Sagalassos wall plasters and paintings are generally recovered in a rather bad state of preservation as a result of several factors. In order to cope with these issues, a well-planned approach has been developed for the preservation of wall plasters on-site. First of all, archaeologists working on site receive a ‘Conservation Field Guide for Excavators at Sagalassos’, which contains detailed information on ‘preventive conservation’ of archaeological finds and equips the excavator with the basics of ‘fine excavation techniques and first aid for finds’. When wall plasters are discovered, measures are taken by the excavators in order to protect the plasters from environmental factors and to minimize the effects of human traffic in the excavation area, while the field conservation team executes its preliminary examination in preparation of a conservation proposal. Subsequently, this treatment proposal is discussed with the archaeologists in charge of the specific excavation area, or – in case of more complicated treatments, which will affect the general time schedule and/or budget of the excavations – with the excavation director. Taking into account the priorities of the excavations and the urgency of other conservation work on the field, the actual conservation treatment is then scheduled.

\(^{21}\) For the coordination between floor and wall decoration; cf. Tronzo 1999, 627.

\(^{22}\) Cf. also Uytterhoeven *et al.* in press.
The conservators record the wall plasters by means of photographs and written documentation. After this, the wall plaster is treated in situ to stop deterioration and prevent further degradation, and to restore it as much as possible in its original appearance and condition.

Eventually, the conservators carry out the ‘after-treatment documentation’ of the wall plasters and paintings and cover them in respect to the future plans of the excavators. Accordingly it is also decided how long the protecting covering will remain and of what material it will consist.

VI. Conclusion

Although the wall paintings of the ‘Urban Mansion’ at Sagalassos are unfortunately not so well-preserved as the paintings known in some contemporaneous elite houses elsewhere, such as at Sardis and Antandros, they certainly deserve to be studied as part of the rich decoration programs that were applied during the various building phases of the residence. Even if it is not always possible to link the paintings with a specific construction phase, several of the preserved painting remains, including plain, geometrical and figurative (especially vegetal and human representations) examples, can be associated with the main construction phase of the dwelling in the late 4th–early 5th century AD, when most of the rooms were adorned with wall paintings.

The careful study and conservation of the small bits and pieces recovered during the excavations can not only reveal the – generally luxurious – appearance of the spaces, but also the ideas of representation that were expressed by the late antique elite in their luxurious private residences by means of impressive architectural shapes, as well as by decorative elements, including rich floor, ceiling and wall decoration.

Acknowledgements

Our research at Sagalassos has been supported by the Belgian Programme on Interuniversity Poles of Attraction (IAP 07/09) and the Research Fund of the KU Leuven (BOF-GOA 13/04 and the Methusalem 07/01, the latter attributed to M. WAELKENS), as well as by project G.0421.06 of the Research Foundation – Flanders, Belgium. The finalization of this article was additionally made possible by the Senior Fellowship granted to I. UYTTERHOEVEN by the Koç University Research Center for Anatolian Civilizations – Istanbul, Turkey (2010–2011).

Bibliographie


228


Lavan et al. 2007 L. Lavan – L. Özgenel – A. Sarantis (eds.), Housing in Late Antiquity. From Palaces to Shops, Late Antique Archeology 3, 2 (Leiden 2007).


Martens accepted F. Martens, The Urban Development of Sagalassos. Town Planning and Settlement Evolution, Studies in Eastern Mediterranean Archaeology 9 (Turnhout accepted).


Rousseau 2010 V. Rousseau, Late Roman Wall Painting at Sardis (Ph.D. diss University of Wisconsin-Madison 2010).

Scott et al. 1993  

Strocka 2007  

Thür 2005  

Tronzo 1999  

Uytterhoeven 2002  

Uytterhoeven 2007  

Uytterhoeven 2009a  

Uytterhoeven 2009b  

Uytterhoeven 2011  

Uytterhoeven 2012  

Uytterhoeven 2013  

Uytterhoeven in press  
I. Uytterhoeven, Passages full of surprises. Circulation patterns within the Late Antique urban elite houses of Asia Minor, in: Diskussionen in press.

Uytterhoeven – Martens 2008  

Uytterhoeven – Van Beeumen 2013  

Uytterhoeven – Waelkens 2005  

Uytterhoeven – Waelkens 2012  

Uytterhoeven et al. 2001  

Uytterhoeven et al. 2004  

Uytterhoeven et al. 2006  

Uytterhoeven et al. 2010  

Uytterhoeven et al. 2011  

Uytterhoeven et al. in press  

Van Nuffelen 2009  

Waelkens 2002  

Waelkens 2004  

Waelkens 2006  

Waelkens et al. 2006  

Waelkens et al. 2007  

Wiplinger 2013  
Zaccaria Ruggiu 2007  
Zaccaria Ruggiu – Cottica 2007  
Zimmermann – Ladstätter 2010  

**Abbildungen**

Abb. 1: Map of Sagalassos. Map by the Sagalassos Archaeological Research Project
Abb. 2: View on the ‘Urban Mansion’ from the south-west. Picture by the Sagalassos Archaeological Research Project
Abb. 3: Plan of the ‘Urban Mansion’ (end 2011 campaign). Figure by the Sagalassos Archaeological Research Project
Abb. 4: Room 40 – Central basin of the nymphaeum covered with ‘structural’ wall plaster. Figure by the Sagalassos Archaeological Research Project
Abb. 5: Courtyard 25 and Galleries 33 – Geometrical and floral fragments. Figure by the Sagalassos Archaeological Research Project
Abb. 6: Room 40 – North wall with niche, decorated with a Chrismon. Figure by the Sagalassos Archaeological Research Project
Abb. 7a–c: Courtyard 69 – Wall painting fragments with architectural frame. Figure by the Sagalassos Archaeological Research Project
Abb. 8a–c: Courtyard 69 – Wall painting fragments with human representations. Figure by the Sagalassos Archaeological Research Project
Abb. 9: Courtyard 69 – Wall painting fragments with bead-and-real decoration. Figure by the Sagalassos Archaeological Research Project
Abb. 10: Courtyard 69 – Wall painting fragment from the eastern portico with graffito of a male head. Figure by the Sagalassos Archaeological Research Project

*Inge Uytterhoeven  
Koç University  
College of Social Sciences and Humanities  
Department of Archaeology and History of Art  
Rumelifeneri Yolu  
TR – 34450 Sariyer-Istanbul*

*Hande Kökten  
Başkent Vocational School, Conservation Program  
Gümüşdere Yerleşkesi, Fatih Cad 33A, Kecioren  
Ankara, Turkey*

*Vanessa Muros  
UCLA/Getty Conservation Program at the Cotsen Institute of Archaeology  
308 Charles E. Young Drive North  
A210 Fowler Building/Box 951510  
Los Angeles, CA 90095–1510, USA*

*Marc Waelkens  
Katholieke Universiteit Leuven  
Blijde-Inkomststraat 21  
B – 3000 Leuven*