

purple) (variation of R 18a) and was – as is still visible in the south-east – at its corners decorated with a square comprising a double polychrome chevron (dark blue, purple, yellow and white) (isolated variation of R 32b).

3. Mosaic of Space X¹² (figs. 5. 7)

Room X (total dimensions: 8.40 × 3.70 m) functioned as the *caldarium* of the private bath complex. Whereas the space had a masonry-built bathtub in the south, its northern part was paved with a mosaic in dark blue, purple and yellowish-white (total original dimensions: 5.40 × 3.70 m). Only parts of the northern section of the heavily damaged pavement have been preserved, as well as fragments of its eastern and western borders. In the north-east corner of the room the mosaic is covered by a marble slab/step, which was at a later stage added immediately on top of the floor. In spite of the general bad state of preservation of the mosaic its patterns can still partly be reconstructed.

The central field consisted of a grid of bands bearing white squares inscribed with dark blue poised squares (isolated variation of R 15a) and dark blue bobbins framing white circles (variation of R 144e). The circles were alternately inscribed with purple squares carrying a poised square that had a central polychrome square, and with outlined squares in purple filled with polychrome squares. At least at its northern, eastern and western sides the central area was framed with a dark blue swastika-meander with single returns on a white background (R 35d).

4. Geometrical mosaic of Waiting Room LVI¹³ (fig. 8)

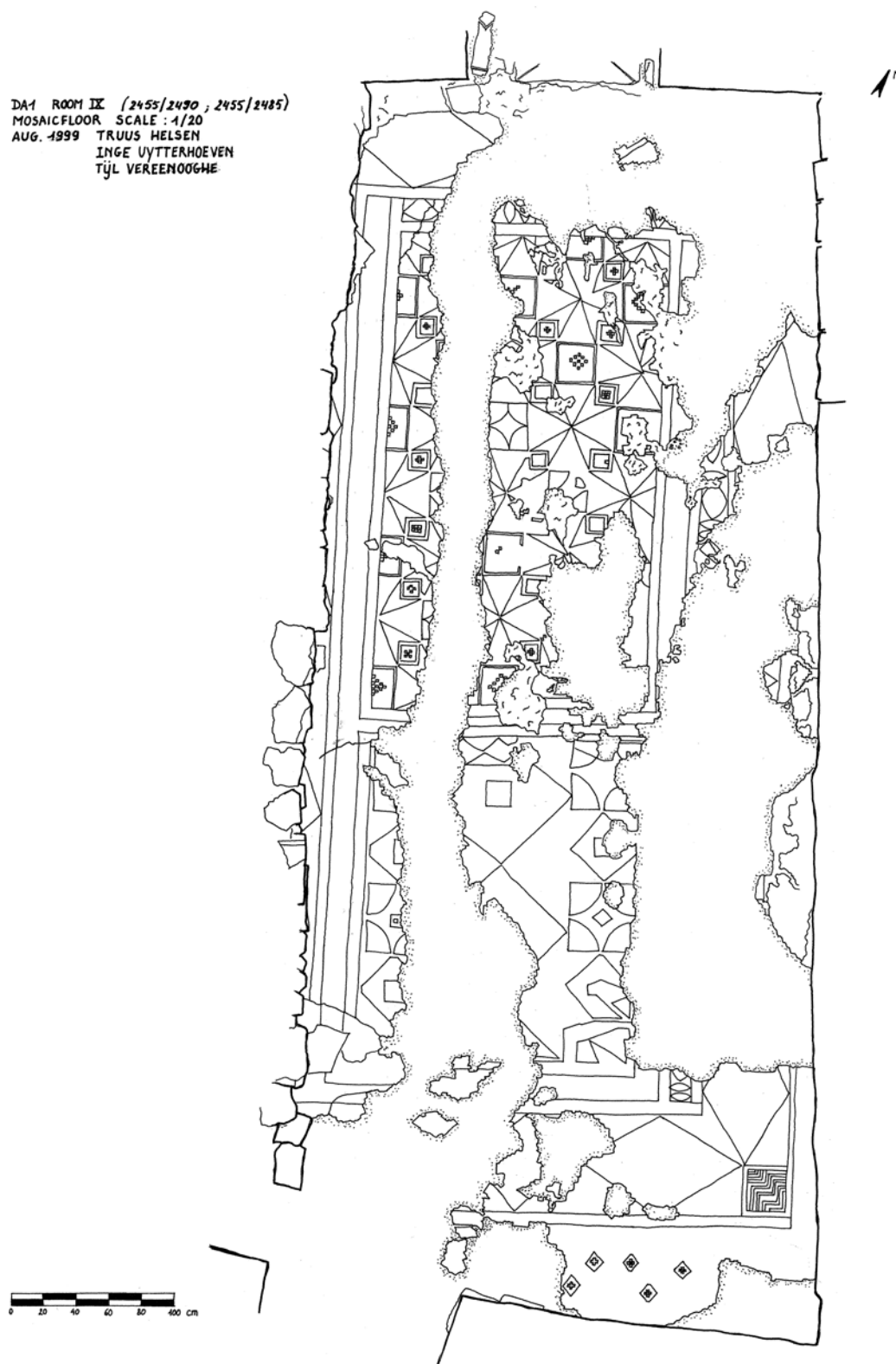
The spaces in the northern area of the ›Urban Mansion‹ formed the representative section of the late antique elite residence. A first mosaic of this public wing has been preserved in Room LVI (total original dimensions: 5.03 × 5.35 m). Based on the location of the room within the building and on the presence of two masonry-built benches this space might be identified as a waiting room for clients and other guests who wanted to access the house owner. Apart from fragments along the north and south walls of the room the mosaic has only been preserved in the western area. This bad state of preservation is the result of later interventions and activities in the room. The long use of the space led to the – possibly deliberate – removal of parts of the floor. In the late 6th century A.D. the sections of the mosaic and its substrate that were still *in situ* at that time were covered with a layer of compact soil carrying an irregular floor in tiles, pottery sherds and purple schist fragments. In addition, a cooking installation in tuff, limestone and brick was built on top of the preserved mosaic in the south-west corner of the room, thus obliterating the floor in this area. The visible *in situ* parts of the mosaic include large sections of the pavement border and fragments of the patterns framing the – no longer preserved – central section.

The border of the mosaic consisted of a polychrome pair of undulating interlaced, shaded bands in light yellow, dark blue, orange and purple forming circles and thorns (variation of R 68b and 68d). The circles were inscribed with alternating isolated polychrome motifs executed in the same colour palette: a heart (or stylised ivy leaf) (isolated version of R 94a), a diagonally quartered poised polychrome square (isolated variation of R 123f), a bichrome axially quartered circle with counter-changed colours (white and purple) (isolated version of R 232c), a polychrome circle with a superimposed fillet grid (isolated variation of R 232d) and a polychrome poised square (isolated variation of R 15a). The same colours re-appeared in the central area, which was framed by a white triple fillet (R 1t) flanked by black simple fillets (R 1a). Here a pattern executed in a tightly braided shaded polychrome simple guilloche, opened to form eyelets,

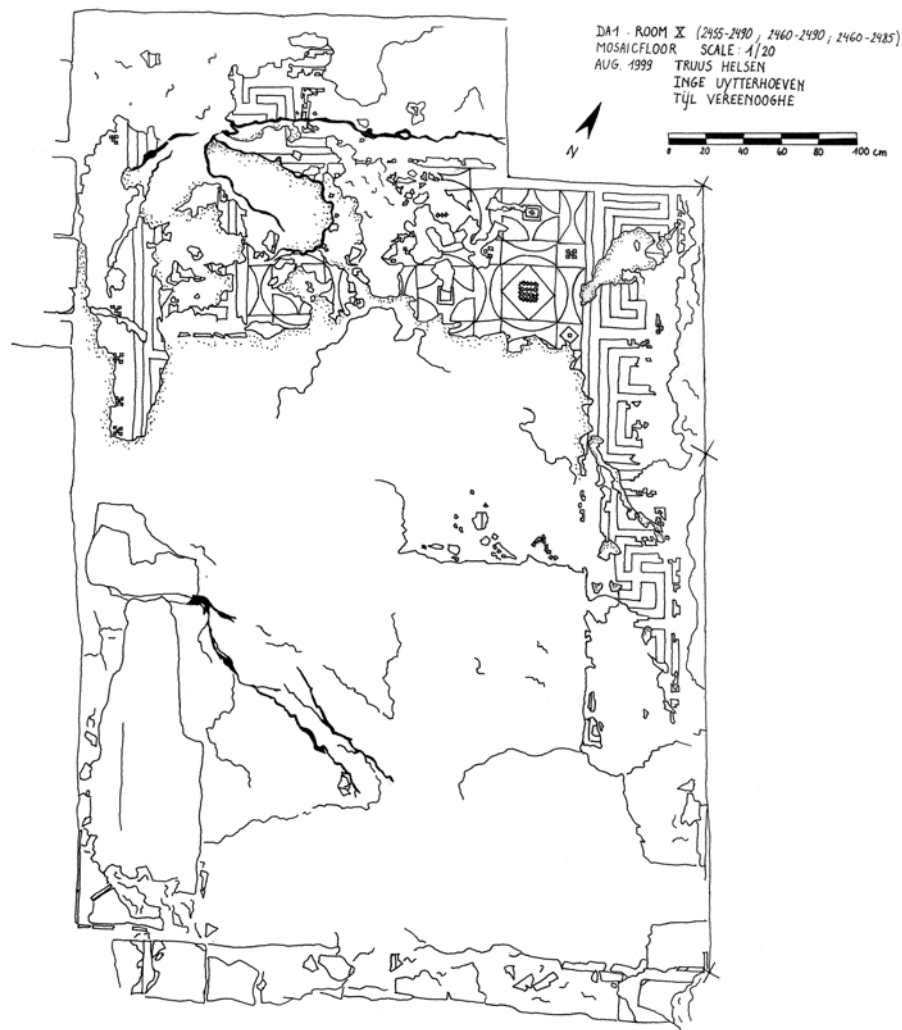
¹² See also Uytterhoeven et al. 2001, 168.

¹³ See also Uytterhoeven et al. 2011, 272.

DA1 ROOM IX (2455/2490 ; 2455/2485)
 MOSAIC FLOOR SCALE : 1/20
 AUG. 1999 TRUUS HELSEN
 INGE UYTTERHOEVEN
 TÏJL VEREENOOGHE



6 Drawing of the mosaic of Room IX (no. 2)



7 Drawing of the mosaic of Room X (no. 3)

seems to have formed the main motif (R 71e). At least along the border of the central field this guilloche was flanked by individual polychrome *peltae* (isolated variation of R 222a–g) and various types of polychrome bands, including diagonal striped bands (R 6a) and bands of superposed chevrons (R 7f). In addition, squares inscribed with either a polychrome poised square (isolated variation of R 17i) or a multi-coloured poised concave square were added.

5. Mosaic of Room L¹⁴ (fig. 9)

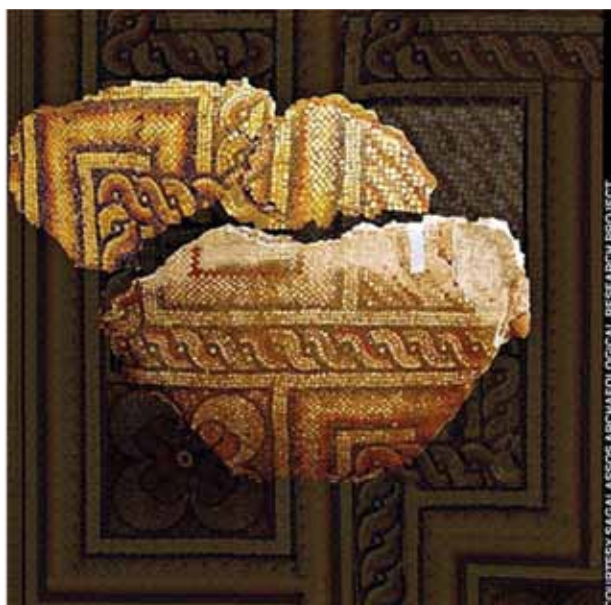
A door in the east wall of Waiting Room LVI gave access to the *atrium*-like hall XLV and to the large audience hall XLVI at the opposite side. On the upper floor of this hall another large – apsidal – reception space was constructed (Room L: 10.83 × 6.53 m).

In the area of the apse a very small fragment of the mosaic of this upper floor room has been preserved *in situ* (maximum preserved dimensions: 1.10 × 0.18 m). A band of six white *tesserae* alternating with coloured mosaic stones (grey-blue, yellow, pink, brown) were bordered by a simple file of green-black mosaic stones (R 1a) separating the first six rows from a white field or band (three *tesserae* preserved). More sections of this mosaic are known through fragments

¹⁴ See also Uytterhoeven et al. 2007, 318; Uytterhoeven 2009b, 441.



8 View on Waiting Room LVI with its geometric mosaic from the south (no. 4)



9 Reconstruction of the collapsed geometric mosaic of Room L (no. 5)



10 View on Corridor LVIII with its geometric mosaic from the west (no. 6)

that ended up in the collapse layers of the lower floor. The largest fragment (1.40×0.56 m) was executed in six different colours (white, dark blue-black, purple, red, orange and yellow). The geometrical decoration consisted of a polychrome orthogonal pattern of elaborate swastika meander in interlaced bands of tightly braided shaded simple guilloche (variation of R 194c and 195c; R 71a), white triple filets (R 1t) flanked by black filets (R 1a and 1i) and a diagonal rainbow pattern with diagonally set *tesserae* creating a soft colour transition (R 199b). The swastika framed squares that were either inscribed with a polychrome quatrefoil or with diagonal serrated filets in the ›Rainbow Style‹ (R 199c).

6. Mosaic of Corridor LVIII¹⁵ (fig. 10)

Also Corridor LVIII was paved with an *opus tesellatum* floor (total dimensions: 7.56×2.80 m). This corridor bordered ›Atrium‹ XLV in the north and connected Space LI in the north-east with Space LX in the south-west. With exception of the northern and southern sections the mosaic is in a good state of preservation in the western half of the corridor. The pavement may also still be *in situ* in the eastern half of the space, but in this area a later 7th century A.D. floor level in

¹⁵ See also Uytterhoeven 2009b, 441.

compact soil has been preserved, in association with a fire place constructed against the north wall of the corridor.

The central field of the mosaic carpet was executed in white, light yellow, dark blue, orange and purple and consisted of a polychrome orthogonal pattern of interloping circles forming irregular concave octagons, inscribed with small crosses (R 235a). This central section was surrounded by a polychrome row of tangent horizontal spindles and pairs of vertical spindles (bead-and-reel motif) on a purple background (variation of R 23k), flanked by white bands (R 1y) that were framed with black single filets (R 1a). At the corners the vertical spindles were replaced by a horizontal lozenge (variation of R 23d). In the north and south the carpet was enclosed by an extra border consisting of multi-coloured outlined lozenges with inscribed lozenge-circle motifs (variation of R 18a).

7. Mosaic of Space LX¹⁶ (fig. 11)

A bichrome (purple and white) diagonal chessboard band (R 14e) formed the transition between the mosaic floor of Corridor LVIII and the somewhat less sophisticated polychrome geometrical floor of Room LX in the west (total dimensions: 4.77 × 4.26 m). This mosaic has only been preserved in the north-east and the south-west corners of the space. The fragmentary state of preservation of the mosaic is related to the presence of terracotta water pipe systems underneath the floor. A main water supply system ran in southern direction along the west wall, while a smaller branch crossed the room from the north-west to the south-east in order to supply a small *nymphaeum* in the north-west corner of ›Atrium‹ XLV. The terracotta pipes of the second, smaller supply system were embedded in the *statumen* and *rudus* of the mosaic and, consequently, must have been part of the same building project. Later on, in the 6th century A.D., sections of the pavement and its basic mortar layers were removed, presumably to control the underlying water system. At this occasion some pipes of the small branch were lifted and the entire area where the mosaic was missing now levelled. The new walking level created like this in the areas without mosaic consisted of soil mixed up with *tesserae* of the damaged mosaic floor.

The motif of the chessboard band occurring at the contact point between the mosaic of Corridor LVIII and that of Space LX was retaken in a slightly different variation in the border of the mosaic of Space LX. At least along the northern and the southern walls a black-framed white band (R 1i and 1y) and a row of tangent poised squares composing hourglasses in white and purple (R 15a) formed the exterior frame of the pavement. The central field was decorated with a polychrome pattern consisting of tangent octagons formed by four pairs of purple hourglasses and bordered by outlined squares inscribed with alternating isolated motifs (variation of R 27e–f): a polychrome Solomon knot (as occurring on R 115d–e) and a polychrome concave square. These motifs were executed in white, light yellow, purple, dark blue and orange *tesserae*. The octagons may either have filled the entire central field of the mosaic or have formed the border of a – no longer preserved – central area.

8. Mosaic of Vestibule XXXV¹⁷ (fig. 12)

From ›Atrium‹ XLV a staircase (XXXVI) led to the large Dining Hall XXII, which was located at the upper floor and preceded by two mosaic-paved vestibules. The first vestibule, Vestibule XXXV (total dimensions: 3.26 × 3.22 m), was paved with a geometrical mosaic ›carpet‹, which – apart from the central northern section – has been entirely preserved.

¹⁶ See also Uytterhoeven 2009b, 441; Uytterhoeven et al. 2011, 272.

¹⁷ See also Uytterhoeven et al. 2004, 218. 226 fig. 6.



11 View on the north-eastern part of the geometric mosaic of Room LX from the south-east (no. 7)



12 View on Vestibule XXXV with its geometric mosaic from the north (no. 8) (Vestibule XVII in the background, no. 9)

The central field of the mosaic consisted of an orthogonal pattern of intersecting circles forming saltires of white tangent spindles and – alternating yellow, orange and purple – concave squares with a centrally inscribed small black concave square (variation of R 239f). Along its eastern, western and northern sides this central area was bordered by a purple wave pattern, rolling towards the left and placed on a white background (R 101b). In the west of the room a black double file (R 1i) was added, as well as a row of irregularly inserted spaced and poised serrated polychrome squares placed on a white background (R 5a).



13 View on Vestibule XVII with its geometric mosaic from the north-east (no. 9)



14 View on Space XVIII with its geometric mosaic from the north-east (no. 10)

9. Mosaic of Vestibule XVII¹⁸ (fig. 13)

To the south of Vestibule XXXV a second vestibule was located, Vestibule XVII (total dimensions: 10.05 × max. 4.70 m). This room was equally mosaic-paved and gave direct access to Dining Hall XXII in the east. At the moment of excavation in 2000 the mosaic was only preserved along the eastern, western and southern walls of the room. Since the vault structure on which the mosaic was resting, was and is in a very unstable state, in 2004 the decision was taken to lift the floor¹⁹.

The central field of the mosaic was executed in purple, white, yellow and orange and consisted of an orthogonal pattern of tangent quatrefoils and *peltae* paired back to back that formed concave hearts and squares (variation of R 131e). The surrounding border consisted of a black swastika-meander with single return (R 35d), which was combined with outlined horizontal rectangles containing an inscribed outlined lozenge decorated with a lozenge-circle motif in orange, yellow and purple on a white background (variation of R 18a). In the corners polychrome chevrons were added (isolated variation of R 32b). Along the western wall a white band (R 1y) formed the transition between the swastika meander and a band of outlined squares, which were built up with multi-coloured *tesserae* and were each inscribed with a circle superimposed by a grid of filets (variation of R 232d). This band separated the actual mosaic from a row of irregularly inserted spaced and poised serrated polychrome squares that actually formed the continuation of the western section of the mosaic in Room XXXV (R 5a). On the other hand, along the eastern wall a black double fillet (R 1i) divided the swastika border from an irregular row of smaller spaced and poised serrated squares in purple on a yellow background (monochrome variation of R 5a).

10. Mosaic of Space XVIII²⁰ (fig. 14)

A door in the southern wall of Vestibule XVII led to yet another mosaic-paved space. This Space XVIII may either have formed a separate room or have been the northern part of a corridor system connecting the representative wing in the north to the private quarter on the lower terrace in the south. Apart from a small north-eastern section the entire space and its mosaic collapsed (maximum preserved dimensions of the space and its mosaic floor: 1.95 × 0.80 m). Because of further collapse danger the *in situ* fragment was lifted immediately after its excavation in 2000²¹.

The frame of the – no longer preserved – central area consisted of a broad white band with some coloured *tesserae* (yellow, red, black, orange) separately inserted (R 1y). This border enclosed a row of tangent circles superimposed by a grid of filets in black, white and dark red (variation of 232d), which was very similar to the western border of Vestibule XVII, but had smaller dimensions. A broad white band (R 1y) formed the transition between the circle border and the central field. This central area seems to have been decorated with – no longer identifiable – geometrical motifs.

¹⁸ See also Uytterhoeven 2002, 16. 25 fig. 8.

¹⁹ The mosaic was lifted under the supervision of the Italian team directed by Gionata Rizzi that was at that time in charge of the onsite conservation at Sagalassos.

²⁰ See also Uytterhoeven 2002, 16. 25 fig. 8.

²¹ Also this pavement was lifted by Gionata Rizzi's onsite conservation team.



15 Collapsed fragments of the mosaic of upper-floor Space LVII (no. 11)



16 Conservation of the mosaic fragments of Space LXIII in their collapse situation (no. 12)



17 Collapsed fragments of the mosaic decorating the upper floor room(s) of the north portico of Peristyle Courtyard LXIX (no. 13)

11. Mosaic of Space LVII²² (fig. 15)

As can be deduced from the collapse material, several spaces of the ›Urban Mansion‹ were provided with an upper floor. This is, for instance, the case with Space LI, a marble-clad corner room, located north-east of ›Atrium‹ XLV in the representative wing of the building. Mosaic fragments found in the collapse of this space allow a partial reconstruction of the pavement belonging to Space LVII, the room that formed the upper floor of Space LI. The mosaic of Space LVII showed circular or curved motifs in black on a yellowish-white background.

12. Mosaic of Space LXIII (fig. 16)

Similarly, Space LXIII, the room forming the upper floor of Space LX, had a mosaic, of which several pieces were recovered during the excavations in between the collapse material. The pavement can be reconstructed as a bichrome floor decorated with an orthogonal pattern of intersecting circles forming saltires of quasi-tangent hollow spindles and concave squares (R 237b) in black on white. Here and there some purple and orange *tesserae* were separately inserted on the white background. The mosaic frame consisted of a black simple fillet (R 1a).

13. Mosaic(s) of the upper floor room(s) of the porticoes surrounding Peristyle Courtyard LXIX (figs. 17–18)

Finally, several mosaic fragments from the rooms belonging to the upper floor of the porticoes surrounding Peristyle Courtyard LXIX in the south of the ›Urban Mansion‹ ended up in the collapse. The colour variations and differ-

ences in complexity of the motifs suggest that they belonged to several different spaces. The fragments include pieces with geometrical patterns, such as a purple rhomb in a dark blue/black frame and a blue/black square, both on a white background. Some larger collapsed mosaic

²² See also Uytterhoeven 2009b, 441.

fragments covering all together a surface of more than 8 m² were excavated in the northern portico of the *peristylum* and can be ascribed to a single upper floor space (fig. 17). From these fragments it is clear that the collapsed mosaic was framed by a broad black border, enclosing a white frame with scattered purple *tesserae* and a second, thinner, black border. The central field seems to have consisted of – unidentifiable – motifs in black *tesserae*, as well as of scattered and coupled orange and purple *tesserae* on a white background. Finally, as far as still recognisable, the room(s) at the upper floor of the southern portico seem to have been decorated with a more elaborate and colourful mosaic. In this pavement *tesserae* in purple, lilac, yellow orange, white and dark blue/black were combined to form sophisticated patterns, such as circular motifs placed in squares (fig. 18).



18 Collapsed fragment of the mosaic decorating the upper floor room(s) of the south portico of Peristyle Courtyard LXIX (no. 13)

IV. Technical Data

The excavation and study of the mosaics of the ›Urban Mansion‹ has allowed getting an idea about the way the pavements were laid out, as well as about the material types used for the *tesserae*.

Construction techniques

Whereas it is in several cases only possible to recognise the upper mortar layer (*nucleus*) in between the *tesserae*, for some *in situ* floors more detailed data about the composition and thickness of the underlying substrate layers are available. This gives us information on the construction techniques that were applied for the floors. On the basis of visible observations three types of substrates can be discerned in the ›Urban Mansion‹.

The *tesserae* of the oldest mosaic fragment exposed in the text sounding in Room IX (no. 1) were placed in a *nucleus* of grey mortar (thickness: 0.09 m), which rested on a fill of soil.

A second group is represented by the two geometrical floors of the private bath complex. The *nucleus* of the pavement of Space IX (no. 2) consisted of a light grey mortar layer (thickness: 0.015–0.02 m), constructed on top of a *rudus* of hard and compact pinkish mortar (thickness: 0.017 m). This *rudus* was carried by the older mosaic floor (no. 1) and – in the area where this mosaic had not been preserved – by a mortared rubble *statumen* (thickness: ca. 0.25 m).

The substrate layers of the mosaic of Room X, the neighbouring *caldarium* (no. 3), showed similarities with those of the mosaic in Room IX (no. 2), especially concerning the two top mortar layers. Here too the *nucleus* was grey-coloured (thickness: 0.015–0.02 m), whereas the *rudus* consisted of a very compact and hard pink-coloured mortar (thickness: 0.025–0.05 m). Finally, the *statumen* of the floor was formed by medium-small limestone rubble stones placed in a very hard and compact light-grey-coloured mortar that covered a layer of more or less regular flat limestone blocks (thickness: ca. 0.15 m) and a bottom layer of horizontally placed tiles (thickness: 0.26 m).

In contrast, the substrate layers applied for the mosaics of the representative wing were different. As is illustrated by the floor of apsidal Room L (no. 5) the *tesserae* were placed in a *nucleus* of pink-coloured mortar (thickness: 0.02 m) here covering a *rudus* of grey mortar (thickness: 0.015 m). The *statumen* of the floor consisted of limestone rubble stones of approximately 0.10 m × 0.10 m × 0.10 m, kept together by means of dark grey mortar (h: 0.06 m).

Similar substrate layers were used for the construction of the mosaic floor of Room XVIII (no. 10). In this pavement a ca. 0.03 m thick *nucleus* of pink-coloured mortar formed the upper substrate layer in which the *tesserae* were placed. The underlying *rudus* in yellowish-grey mortar (thickness: 0.04–0.05 m) contained pumice pieces and covered a *statumen* of vertically placed limestone stones (h: 0.12–0.13 m) put in a clay layer with stone aggregates (thickness: ca. 0.10 m).

On the other hand, the substrate of the mosaic of Room LX (no. 7) was formed by a pinkish mortar layer (*nucleus*) on top of a grey-coloured mortar-rubble *rudus* containing some small brick pieces. The underlying *statumen* consisted of compact mortar including brick fragments and some horizontally placed larger brick parts. The difference in substrate composition and, in particular, the large amount of brick inclusions in the substrate layers may be related here to the presence of water pipes under the floor. As mentioned above, northwest-southeast running terracotta water pipes were incorporated within the *rudus* and the *statumen* of this mosaic. In addition, at the north side of the supply system – and probably originally also at its south side – the pipes were lined with large regular rubble blocks, fixed by the *statumen* of the floor. Most likely, the brick fragments were added in the basic layers to make them ›hydraulic‹.

Finally, a similar sequence of a pink *nucleus*, a grey *rudus* and a mortared stone *statumen* has also been retraced on some of the collapsed mosaic fragments recovered in the representative area, for instance on the collapsed fragments of Space LXIII (no. 12).

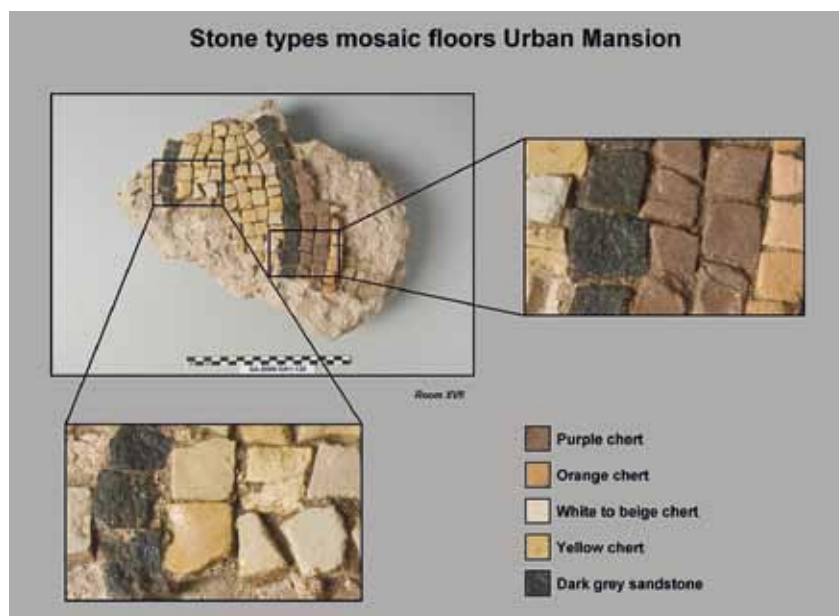
In addition, in some areas of the ›Urban Mansion‹ mortar layers, which originally formed the basis for a pavement, have been exposed. This is the case in the northern and eastern porticoes of Peristyle Courtyard LXIX. The floor substrate consisted here of a pink *nucleus* and a grey-coloured *rudus* covering a *statumen* of – now disintegrated light grey – mortar and small rubble stones. Given the large similarities between these basic layers and the substrate of the mosaic floors of the representative wing, the porticoes of Courtyard LXIX were most probably once decorated with mosaics. Unfortunately, no fragments of these pavements have been preserved. The mosaic floors had already disappeared or deliberately been removed when in the late 6th–early 7th century A.D. a new tiles floor was created on top of the remaining fragments of the *nucleus* and/or *rudus*²³.

Materials applied for the *tesserae* of the mosaics

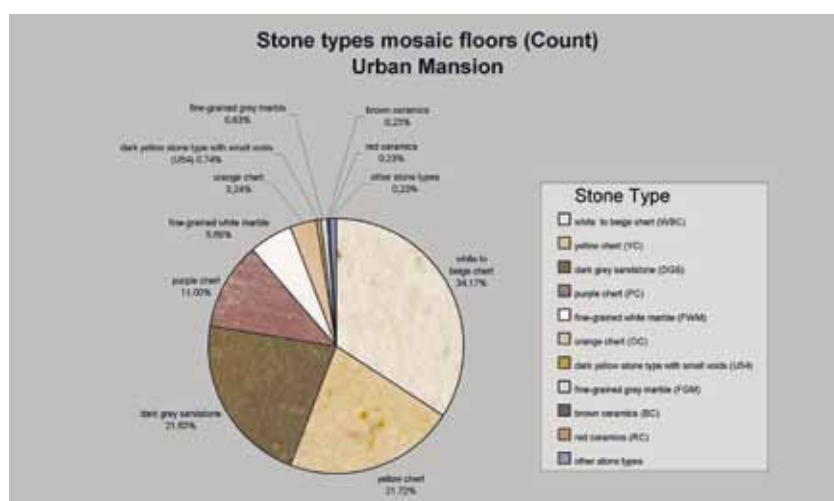
During the excavation campaign of 2009 a first detailed material study of the ›Urban Mansion‹ mosaics was initiated by Markku Corremans, within the framework of his PhD research on the import of stone as building material²⁴. This first investigation focused on mosaic fragments and loose *tesserae* that were recovered during previous campaigns from the collapse layers in the northern representative area of the building. The loose *tesserae* were quantified by count and weight, whereas the *tesserae* of the mosaic fragments were counted. For the loose *tesserae* the two applied techniques revealed similar results. Although the outcomes of the quantification of the *tesserae* in mosaic fragments slightly differ from one floor to another, chert, occurring in

²³ See also Uytterhoeven et al. 2011, 272–273.

²⁴ This PhD is part of a research project on the role of Roman and Early Byzantine provincial towns as production, consumption and redistribution centres, taking Sagalassos and its territory as a case study. The project has been financed by the Research Foundation – Flanders, Belgium (reference number G.0421.06).



19 Mosaic fragment with the most occurring stone types



20 Diagram of the stone types used for the mosaic floors of the ›Urban Mansion‹

various colours, turned out to be the most frequent stone type in all floors (fig. 19)²⁵. When considering all the mosaics examined thus far, both loose *tesserae* and fragments, the same pattern can be discerned (fig. 20). White to beige chert proved to be the most popular stone type, followed by local dark grey to dark green sandstone. Purple, yellow and orange chert *tesserae* were also used quite frequently, while the application of brown and red slipped ceramics, as well as that of white limestone was rather rare. Finally, limited amounts of white and grey fine-grained marble were used as *tesserae* as well, with white marble being applied more abundantly than grey marble. Preliminary archaeometric research, including petrographic analysis of thin sections with a polarizing microscope and stable isotope analysis of oxygen and carbon, conducted at the Centre for Archaeological Sciences (CAS) (Leuven University, Belgium), has proven that the white and grey marble originated from the marble quarries of Docimeion, located some 135 km to the north of Sagalassos.

²⁵ Chert, similar to the material used for the mosaic floors of the ›Urban Mansion‹, has been found in close proximity of Sagalassos; cf. Degryse et al. 2008, 19–20.

V. Dating the ›Urban Mansion‹ Mosaics

The dating of the mosaic floors of the ›Urban Mansion‹ at Sagalassos can be based on the combination of stratigraphical evidence and stylistic characteristics.

Stratigraphical dating

From the substrate of a number of mosaic floors pottery sherds have been recovered allowing a *terminus post quem* (or even *terminus ad quem*) dating for their construction²⁶. Unfortunately, not all mortar basic layers have revealed datable pottery material. The preliminary dating of the ceramics retrieved thus far was carried out during the excavation campaigns by Jeroen Poblome. These dating proposals fit with other chronological evidence obtained from test soundings, executed at various places within the ›Urban Mansion‹ in relation to particular architectural features and intended to get a pottery dating for the various building interventions. The available chronological evidence points out that the mosaics of the ›Urban Mansion‹ belong to three main time periods.

The mosaic that was partly exposed in the test sounding of Room IX (no. 1) can be dated on the basis of the ceramics found in the fill layer on top of which the *nucleus* with *tesserae* was constructed. The pottery material places this fill around the mid-1st century A.D., making a dating for the mosaic in the mid-second half of the 1st century A.D. acceptable.

The pottery used in the *statumen* of the second mosaic of Room IX (no. 2) goes in general back to the 1st century A.D. However, the stratigraphical position of this mosaic on top of the older pavement (no. 1) points towards an – at least a bit – later construction date than that of mosaic no. 1. On the basis of a test sounding carried out in Room XVI, the most western bath space, the private bathing complex was built in the late 1st–early 2nd century A.D.²⁷. Consequently, the currently preserved mosaic of Room IX may well have been part of the original building phase of the bath and must have followed the older mosaic (no. 1) very closely in time.

On the other hand, a much later construction date has been obtained for the mosaics of the representative wing in the north of the ›Urban Mansion‹. The pink mortared *nucleus* of the mosaic of Space LX (no. 7) has preliminarily been dated to the 5th century A.D. on the basis of the incorporated pottery fragments, while the sherds collected during lifting the mosaic of Vestibule XVII (no. 9) could be placed in the late 4th century A.D. This late 4th–5th century A.D. dating can be extended to the mosaics of the neighbouring rooms. The floor of Corridor LVIII (no. 6) was undoubtedly constructed during the same phase as that of Space LX (no. 7), since the two pavements were only separated from each other by means of a dividing pattern in the floor. The same is true for the mosaics of Vestibules XXXV (no. 8) and XVII (no. 9), which shared a common western border. The stratigraphical dating related to the construction of the large upper class residence with its extensive representative wing, which has been retrieved through various test soundings in the ›Urban Mansion‹, equally suggest a construction date in the late 4th–early 5th century A.D. (Phase 7 of the locally produced Sagalassos Red Slip Ware: ca. 350/375–450/475 A.D.)²⁸. This is in the accordance with the building materials and techniques applied for the walls in this part of the mansion. The homogeneous use of rubble-brick masonry and the intersection of the individual walls similarly point towards a single building intervention. The combination of these general construction data and the dating evidence for the indi-

²⁶ For the importance of mosaic dating on the basis of stratigraphical criteria, s. also Scheibelreiter-Gail 2011, 45. In the ›Urban Mansion‹ no coins, which could have offered additional chronological information, have been found in the floor substrate.

²⁷ See also Uytterhoeven – Waelkens 2012, 247.

²⁸ Uytterhoeven et al. 2004, 218; Jacobs et al. 2005, 273; Uytterhoeven 2009b; Uytterhoeven – Waelkens 2012, 248.

vidual mosaic floors allow concluding that the geometrical mosaics of the representative wing all belonged to the original building phase of the large late antique elite residence.

In addition, also the mosaic floors that once paved the porticoes of the Peristyle Courtyard LXIX but have – apart from their underlying basic mortar layers – not been preserved, can be ascribed to the same building intervention, since the pottery retrieved from the *nucleus* of this pavement could equally be dated to the late 4th–early 5th century A.D.

Stylistic characteristics

The stratigraphical dating available for several of the mosaics of the ›Urban Mansion‹ offers a solid chronological framework that can be confronted with the stylistic characteristics of the floors. It should be pointed out here that a mosaic dating purely based on stylistic elements, as often occurs, has to be approached with caution. Stylistic dating is rendered difficult by the observation that several motifs and combinations of patterns remained in vogue during long periods and in different areas of the Roman Empire, while also aspects, such as personal taste, seem to have played a role in the choice for particular motifs and compositions. In addition, certain stylistic features seem to have spread from one area to another with a certain chronological delay, which is an additional difficulty when studying mosaic floors of different regions. Besides, although differences in the quality of execution of mosaics and their patterns are often used as chronological indicator, these cannot always be related to chronological developments²⁹. Therefore, the investigation of mosaics for which stratigraphical chronological data are available, as at Sagalassos, is of major importance, not only for the understanding of the chronology of the particular building under study and its pavements, but also for insights in the stylistic developments mosaics underwent over a longer time at a certain site or in a particular geographical area³⁰.

In the case of the second mosaic floor in Room IX (no. 2) of the bath complex, for which we have stratigraphical dating elements (late 1st–early 2nd c. A.D.), the style of the applied motifs does not offer clear chronological indications and, consequently, does not unequivocally confirm the construction date assumed on the basis of the pottery in the floor substrate. Some of the patterns appearing on this pavement, such as the tangent four-pointed stars forming lozenges with axially inscribed squares occurring on the northern central panel, seem to have been in vogue during a long time period, even into Late Antiquity³¹. Similarly, the motif combining tangent squares and smaller poised squares that appeared on the southern central panel, stayed in use until late antique times³². Although no stratigraphical dating evidence is available for the mosaic of Room X (no. 3), the stylistic similarities between this floor and the – second – pavement of Room IX suggests that both were laid out during the same building phase.

On the other hand, the stratigraphical dating retrieved from the pavements of the representative wing is undoubtedly in line with the chronological implications that are generally linked with the stylistic features present on the mosaics. The (combinations of) motifs and colour compositions occurring in the mosaics of the ›public‹ section of the ›Urban Mansion‹ all fit with parallels from elsewhere that are generally recognised as late antique developments and have in a

²⁹ For the issue of stylistic dating, s. further Dunbabin 1999; Britt 2011, 20; Scheibelreiter-Gail 2011, 43. For the problems encountered when trying to date geometrical mosaics in different areas of the Mediterranean, s. Kolarik 2012.

³⁰ For examples of mosaics, whose stylistic dating can be refined on the basis of stratigraphical elements, cf. Scheibelreiter-Gail 2011, 45. See p. 45–46 for examples of mosaic datings based on coins.

³¹ Parallels, younger than the mosaic of Room IX, include pavements at Aphrodisias, s. Scheibelreiter-Gail 2011, 200 (Cat. 8); 433 fig. 27 (›Triconch House‹, 350–375 A.D.); 204–205 (Cat. 11); 437. 438 fig. 38 (›North Temenos House‹, presumably 4th–5th c. A.D.). Other examples have been preserved at Antioch, s. Cimok 2000, 50–53 (›House of Ge and the Seasons‹, 5th c. A.D.); 281 (›House of the Drunken Dionysos‹, late 3rd–early 4th c. A.D.).

³² For an example from Sandanski (Bulgaria), where the row of squares was applied as border pattern, s. Hoddinott 1975, pl. 175.

certain number of cases also been stratigraphically dated to Late Antiquity. From a stylistic point of view, the mosaics thus entirely follow trends and tendencies that were in vogue during the 4th and 5th century A.D. and occurred in Turkey, as well as in other areas of the Mediterranean, both the East and West³³. Moreover, they not only show close similarities with mosaic floors in contemporaneous private elite dwellings, but also represent patterns occurring in public buildings of the same period³⁴.

As is known from numerous dated examples at various archaeological sites mosaic floors of this time typically had a polychrome character, realised either by applying the real ›Rainbow Style‹ with diagonally set *tesserae* (as in Room L – no. 5), or by creating designs with various one-coloured strings placed side-by-side (as in Corridor LVIII – no. 6). Wide-spread patterns included multi-coloured bands in the ›Rainbow Style‹ built up by *tessera* strings in various colours, complicated interloped and interlaced geometrical patterns and the abundance of geometrical filler motifs. The repetitive combination of these patterns into real ›carpets‹ is equally characteristic for mosaics constructed in this period³⁵.

The polychrome undulating interlaced bands occurring on the mosaic of Waiting Room LVI (no. 4) were very typical of the time and are, for example, also known from a house at Aphrodisias, the ›Alytarchenstoa‹ at Ephesos and churches at Torba and Küçük Tavşan Adası (Bodrum)³⁶. The combination of various types of polychrome bands, such as chevrons and diagonal variations, which appeared on the mosaics of Waiting Room LVI (no. 4) and Room L (no. 5), was also frequently occurring. For instance, similar bands are attested in houses at Antioch and Aphrodisias³⁷. Besides, polychrome simple guilloches, such as those on the mosaics of Rooms LVI (no. 4) and L (no. 5), were often used to form different types of meanders³⁸. In particular, the complex swastika pattern with guilloche combined with squares, which was in Room L executed in the ›Rainbow Style‹, is also known from other houses (e.g. at Aphrodisias and at Stara Zagora in Bulgaria), as well as from religious buildings (e.g. Sardis Synagogue and the East Basilica at Xanthos)³⁹. Furthermore, ›carpets‹ of interlocking circles, such as in Corridor LVIII (no. 6),

³³ For an overview of the scholarly research on late antique mosaics s. Britt 2011. As far as mosaics from the East and the West are concerned, similarities have, for instance, been pointed out between mosaics in Syria and on the Iberian Peninsula. In particular, from the mid-4th c. A.D. onwards new evolutions in techniques, style, motifs and compositions, first developed in the East, appeared in Spain, probably through eastern artists or via copy books; s. Blazquez 1992 and Blazquez 2008; Blazquez – Cabrero 2012. Similarly, close similarities in motifs and execution existed between Northern Africa and Sicily s. Baum-vom Felde 2003.

³⁴ The occurrence of similar mosaic patterns in private and public buildings has, for example, also been noticed by Manière-Lévêque 2007b (490 for Xanthos).

³⁵ For these trends, s. e.g. Dunbabin 1999, 176–177, 225–226, 295; Donceel-Voûte 1999, 591; Daszewski 1999, 592; Quatember et al. 2009, 124; Raynaud 2009, 138. For stylistic tendencies in 4th and 5th c. A.D. Western Asia Minor, s. also Scheibelreiter 2007, 69–72.

³⁶ ›Tetrapylon House‹ at Aphrodisias (possibly early 5th c. A.D.): Campbell 1991, 16–19; Campbell 1996, 195; Scheibelreiter-Gail 2011, 207–208 (Cat. 13); 443 fig. 46. ›Alytarchenstoa‹ at Ephesos (ca. 400 or early 5th c. A.D.): Quatember et al. 2009, 117, 142 fig. 20; Scheibelreiter-Gail 2011, 212, 214 (Cat. 17); 457 fig. 69. Basilica at Torba (late 4th–5th c. A.D.): Scheibelreiter-Gail 2011, 384–385 (Cat. 140); 699 fig. 617. Church of Küçük Tavşan Adası (1st half of the 6th c. A.D.): Andaloro – Pogliani 2012, 20–21 fig. 14.

³⁷ E.g. an early 4th c. A.D. mosaic from Daphne (Antioch): Cimok 2000, 239. Mid-5th c. A.D. ›Ananeosis‹ mosaic at Antioch: Cimok 2000, 244. ›Atrium House/Priest's House‹ at Aphrodisias (2nd half of the 5th c. A.D., executed in the ›Rainbow Style‹): Campbell 1991, 22–26; Campbell 1996, 192–195; Scheibelreiter-Gail 2011, 199–200 (Cat. 7); 432 fig. 24.

³⁸ Examples include floors in several houses at Aphrodisias and Halikarnassos, s. Scheibelreiter-Gail 2011, 201 (Cat. 8); 433 fig. 28 ›Triconch House‹ at Aphrodisias, 350–375 A.D.; 204–205 (Cat. 11); 438 figs. 36, 38 ›North Temenos House‹ at Aphrodisias, presumably 4th–5th c. A.D.; 206, 208 (Cat. 13); 443 fig. 47 ›Tetrapylon House‹ at Aphrodisias, possibly early 5th c. A.D.; 271, 278 (Cat. 49); 569 fig. 289 ›House of Charidemus‹ at Halikarnassos, 5th c. A.D.). The motif is also applied in churches, for instance in the basilica near the Magnesian Gate at Ephesos and the Altintepe Church at Erzincan. Ephesos: Scheibelreiter-Gail 2011, 217 (Cat. 19); 470 fig. 95 (4th or early 5th c. A.D.). Erzincan: Can 2012, 227 fig. 3; 229 (mid-6th c. A.D.).

³⁹ Triconch House (›Bishop's Palace‹) at Aphrodisias: Campbell 1991, 15 and pls. 52–54; Scheibelreiter-Gail 2011, 200–201 (Cat. 8) (350–375 A.D.). *domus* at Stara Zagora (Thracia, Bulgaria) (late 4th c. A.D.): Valeva 2012, 930.

were very much in vogue. This pattern occurred in all types of late antique buildings, ranging from houses (e.g. Aphrodisias) over street porticoes (e.g. Ephesos; Sardis), baths, *gymnasia* (e.g. Ephesos; Sardis) and *macella* (e.g. Perge) to churches (e.g. Ephesos; Iasos; Xanthos)⁴⁰. The same is true for the spindles and concave squares forming quatrefoils, which appeared in Vestibule XXXV (no. 8) and were much preferred for the floor decoration of both private and public constructions (e.g. Aphrodisias, Halikarnassos, Sardis and Torba)⁴¹. Apart from polychrome variations on the motif, bichrome versions, such as the example of Space LXIII (no. 12), are attested, for instance at Ephesos⁴². Similarly, the mosaic of Space LX (no. 7) with its pattern of tangent octagons formed by four pairs of purple hourglasses and bordered by squares did not form an isolated example. Parallels and variations in private and public buildings include the mosaic of Basilica Γ at Thebes Phthiotides in Greece⁴³. Moreover, the polychrome Solomon knot integrated in the floor of Room LX was a much preferred motif, frequently functioning as separate filler element⁴⁴. As far as mosaic borders are concerned, often applied patterns included the bead-and-reel border of Corridor LVIII (no. 6), which is, for example, also attested at Aphrodisias, Halikarnassos and Xanthos⁴⁵, and the wave border of Vestibule XXXV (no. 8), known through several examples at Aphrodisias⁴⁶. The swastika border, which was in Vestibule XVII (no. 9) combined with lozenges, could also appear in combination with other geometrical figures⁴⁷. Finally, polychrome zigzag patterns (chevrons), used to decorate the corners of Vestibule XVII (no. 9), occurred, for instance, also as border elements at Ephesos and Mylasa⁴⁸.

931–934, figs. 4–5. 8. 10–11. Sardis Synagogue (after mid-4th c. A.D., but now re-dated to the mid-6th c. A.D.): Campbell 1991, 4 pl. 13; Magness 2005. East Basilica at Xanthos: Raynaud 2009, 59. Similar motifs occurred in the West, as illustrated by a late 5th–early 6th c. A.D. mosaic of a ›large building‹ at Naples, in which swastikas in guilloche were combined with octagons; cf. Ebanista – Cuccaro 2010, 513–514. 520 (with references to more parallels).

⁴⁰ Scheibelreiter-Gail 2011, 207–208 (Cat. 13); 443 fig. 47 (›Tetrapylon House‹ at Aphrodisias, possibly early 5th c. A.D.); 213–214 (Cat. 17); 460 fig. 76 (›Alytarchenstoa‹ at Ephesos, ca. 400 or early 5th c. A.D.); 355–357 (Cat. 124); 669 fig. 526 (colonnaded street in Sector MMS/N at Sardis, late 4th–early 5th c. A.D.); 258. 261 (Cat. 42); 551 fig. 215; 552 fig. 220 (Vedius Gymnasium at Ephesos, early 5th c. A.D.); 247. 249 (Cat. 35); 534 fig. 179 (Johannes Church at Ephesos, 5th c. A.D.); 282–283 (Cat. 54); 576 fig. 312 (Acropolis Basilica at Iasos, late 5th–early 6th c. A.D.); 299 (Cat. 77). See also Raynaud 2009, 72 (East Basilica at Xanthos) and Işıklıkaya-Laubscher 2012, 476 fig. 7; 478 fig. 11 (*macellum* of Perge, late 4th–early 5th c. A.D.). For the portico mosaics at Sardis, s. also Severson et al. 2000.

⁴¹ Houses: Scheibelreiter-Gail 2011, 198–200 (Cat. 7); 431 fig. 21; 432 fig. 24 (›Atrium House/Priest's House‹ at Aphrodisias, 2nd half of the 5th c. A.D.); 207–208 (Cat. 13); 443 figs. 46–47 (›Tetrapylon House‹, possibly early 5th c. A.D.); 277. 278 (Cat. 49); 573 fig. 299 (›House of Charidemus‹ at Halikarnassos, 5th c. A.D.). Baths: Scheibelreiter-Gail 2011, 360. 362 (Cat. 129); 677 fig. 549 (Bath and ›Mosaic Suite‹ in Sector Pactolus North at Sardis, 5th c. A.D.). Religious public buildings: Scheibelreiter-Gail 2011, 195 (Cat. 5); 427 figs. 13–14 (Agora Basilica of Aphrodisias, 2nd half of the 4th c. A.D.); 367. 371–372 (Cat. 130); 681 fig. 565; 686 fig. 574 (Synagogue of Sardis, after mid-4th c. A.D. or rather mid-6th c. A.D.); 384–385 (Cat. 140); 700 fig. 618 (Basilica at Torba, late 4th–5th c. A.D.).

⁴² Scheibelreiter-Gail 2011, 213–214 (Cat. 17); 460 fig. 76 (›Alytarchenstoa‹ at Ephesos, ca. 400 or early 5th c. A.D.).

⁴³ Chronique des fouilles 1975, 651. 655 fig. 138.

⁴⁴ For examples, s. Scheibelreiter-Gail 2011, 204–205 (Cat. 11); 439 fig. 39 (›North Temenos House‹ at Aphrodisias, presumably 4th–5th c. A.D.); 216–217 (Cat. 19); 470 fig. 95 (Basilica near the Magnesian Gate at Ephesos, 4th–early 5th c. A.D.); 273. 278 (Cat. 49); 570 fig. 292 (›House of Charidemus‹ at Halikarnassos, 5th c. A.D.).

⁴⁵ Scheibelreiter-Gail 2011, 194–195 (Cat. 5); 427 figs. 13–14 (Agora Basilica of Aphrodisias, 2nd half of the 4th c. A.D.); 277. 278 (Cat. 49); 573 fig. 299 (›House of Charidemus‹ at Halikarnassos, 5th c. A.D.). For the ›Residence on the Lycian Acropolis‹ at Xanthos, s. Manière-Lévêque 2007a, 428 fig. 9; Manière-Lévêque 2007b, 488; Manière-Lévêque – Raynaud 2007, 167.

⁴⁶ Scheibelreiter-Gail 2011, 194–195 (Cat. 5); 427 figs. 13–14 (Agora Basilica, 2nd half of the 4th c. A.D.); 204–205 (Cat. 11); 439 fig. 39 (›North Temenos House‹, presumably 4th–5th c. A.D.); 207–208 (Cat. 13); 443 fig. 46 (›Tetrapylon House‹, possibly early 5th c. A.D.).

⁴⁷ For instance, lozenge motifs alternating with other geometrical motifs and polychrome bands: Scheibelreiter-Gail 2011, 199–200 (Cat. 7); 432 fig. 24 (›Atrium House/Priest's House‹ at Aphrodisias, 2nd half of the 5th c. A.D.). Swastikas combined with squares: Popova – Lirsch 2012, 808–809 fig. 11 (Basilica of Sandanski, Bulgaria, early 5th c. A.D.).

⁴⁸ Scheibelreiter-Gail 2011, 217 (Cat. 19); 470 fig. 95 (Basilica near the Magnesian Gate at Ephesos, 4th or early 5th c. A.D.); 325–326 (Cat. 97); 631 fig. 427 (›Peristylum Building‹ at Mylasa, 2nd–4th c. A.D.).

VI. Mosaics in Context: Mosaics as Indicators of Room Hierarchy and as a Medium of Self-Display

Apart from giving information about technical and stylistic aspects of late antique mosaic construction, the set of mosaics that were laid out as part of the large late 4th–early 5th century A.D. ›Urban Mansion‹ at Sagalassos (nos. 4–13) offer us a glimpse on the luxurious architectural and decorative context to which they contributed and on the programme that laid at the basis of their construction. Although all floors of this building phase show similarities in style, a certain hierarchy between the different rooms of the building can be established, based on the complexity of the patterns occurring on the mosaics, their compositions and colour combinations, which clearly shows that each mosaic was individually chosen to decorate a particular space in the residence⁴⁹.

The most ›simple‹ mosaics only showed basic motifs in a limited number of colours. This group of pavements is represented by the black-and-white tessellate floors of the collapsed upper-floor rooms LVII (no. 11) and LXIII (no. 12) in the representative wing, and by some of the pavements decorating the upper floor of the porticoes that surrounded the southern Peristyle Courtyard LXIX, in particular the room(s) above the north portico (no. 13). The find conditions of these rather plain mosaics in the collapse layers suggest that especially less accessed areas for private use located on the upper floors were paved with this type of mosaics.

Plain polychrome floors occurred in spaces with a transition function, including Vestibules XXXV (no. 8) and XVII (no. 9) and Room/Corridor XVIII (no. 10), as well as in other spaces that seem in general to have not been directly accessed by outsiders, such as Room LX (no. 7). In contrast to these two groups of tessellated floors, another group of mosaics was typified by a very sophisticated and subtle polychrome character, complicated interlacing bands and guilloches. These elaborate pavements occurred particularly in the immediate entrance and reception area centred on ›Atrium‹ XLV. All spaces with this type of mosaics can be identified as easily accessible and often visited rooms, which no doubt aimed at impressing visitors and displaying the power and wealth of the house owner. To this group belong Waiting Room LVI (no. 4), which must have been entered by almost all guests, as well as Corridor LVIII (no. 6) (leading to the representative marble-clad Space LI in the north-east) and the apsidal Room L (no. 5) on the upper floor.

On the other hand, the main audience and dining areas, typified by the largest dimensions and – as far as currently retraceable – most opulent wall decorations, such as the reception hall on the east side of the ›Atrium‹ (Space XLVI), the representative room at the north-east end of Corridor LVIII (Space LI) with its rich marble wall incrustation and Dining Hall XXII, preceded by Vestibules XXXV and XVII, were paved in *opus sectile*. Although these spaces were during the later occupation phases of the ›Urban Mansion‹, at the latest in the second half of the 6th century A.D., stripped off of their floor decoration, the geometrical *opus sectile* pieces in marble and coloured stone that were recovered from the collapse layers during the excavation still reveal something about the type of original pavement. In these marble-paved main spaces, whose elaborate character was additionally underscored by their impressive architectural shapes and wall decoration, the house owner received his clients and guests displaying himself in the most luxurious way. Outsiders only reached these rooms after having passed several spaces, waiting rooms and vestibules with tessellate floors characterized by a degree of elaborateness that increased the closer a visitor arrived to the main reception spaces at the end of the circulation track, which formed the climax of impression.

From an aesthetical point of view it is important to note that all mosaic floors of the representative wing of the ›Urban Mansion‹ were executed with *tesserae* of the same colour palette. This resulted in a very homogeneous ensemble. In addition, the ›basic‹ transition spaces, such

⁴⁹ For the role of mosaics as indicators of room hierarchy within late antique elite houses, s. also Uytterhoeven (2014b).

as corridors (Corridor LXII⁵⁰), staircases (Staircase XXXVI⁵¹; staircase in Corridor XLII and the corridor pavement itself⁵²), as well as ›Atrium‹ XLV, which played a regulating role in the movement within the representative wing and functioned as vestibule to the main Audience Hall XLVI⁵³, were paved with purple schist slabs. This pavement fitted very nicely with the mosaic floors in which purple (chert) was the dominating colour.

The differences in mosaic types, complexity and colour thus indicate that the pavements not only reflected the importance and position a space had within the ›Urban Mansion‹, but also the degree of impression and representation the space had to fulfil. In this way the choice for a particular type of floor decoration additionally underscored the imposing effect that was already intended to be reached by means of impressive architectural characteristics, such as large dimensions, high ceilings and complex shapes (e.g. apse)⁵⁴, and reinforced by a variety of other decorative elements, ranging from wall paintings, wall incrustation and fixed water-related features (e.g. fountains and basins) to moveable statuary, lighting assets, tapestry and curtains⁵⁵. From this point of view the mosaic floors of the ›Urban Mansion‹ played an important role in the display of wealth of the late antique elite members who constructed and refurbished the residence at various occasions during its late 4th–5th century A.D. highdays.

The observations made in the ›Urban Mansion‹ at Sagalassos can also be made in other contemporaneous upper class house contexts on sites all over the Mediterranean. Examples include several large private complexes in Asia Minor, where similar variations in floor types, combined with a variety of other decorative elements, occurred in accordance with the importance of a space within the building⁵⁶. In all dwellings whose wall and floor decoration has (partially) been preserved, spaces with the strongest representative function, such as audience halls and dining rooms, where the house owner could display himself in the most visible way to visitors and guests, had generally the richest décor⁵⁷. Parallel to the situation in the ›Urban Mansion‹ where *opus sectile* floors seem to have been reserved for the most important reception spaces, in other urban elite houses of Asia Minor too *opus sectile* composed of geometrical elements in marble and coloured stone was preferably applied in the main rooms of the building. The position of *opus sectile* at the top of the floor decoration hierarchy is, for instance, nicely illustrated in houses at Hierapolis, Sardis and Aphrodisias⁵⁸.

In some houses geometrical mosaics provided with very complex patterns formed an alternative for *opus sectile* floors in the main spaces. This is not only clear from the extremely elaborate polychrome floor of apsidal reception Room L (no. 5) in the ›Urban Mansion‹ of Sagalassos, but also from the sophisticated geometrical pavement with interlaced motifs decorating the apsidal hall of the ›House above the Theatre‹ at Ephesos⁵⁹.

⁵⁰ Uytterhoeven et al. 2011, 272.

⁵¹ Uytterhoeven et al. 2004, 218.

⁵² Uytterhoeven – Waelkens 2005, 423.

⁵³ Uytterhoeven et al. 2006, 317–318. 333 fig. 2; Uytterhoeven 2009, 441. 454 fig 11.

⁵⁴ See also Uytterhoeven 2007.

⁵⁵ For different decorative elements in late antique house contexts of Asia Minor, s. Uytterhoeven 2013 and Uytterhoeven (2014a).

⁵⁶ For room hierarchy in Roman and late antique houses, which was often underscored by the quality and materials of wall and floor decoration, s. also Baldini Lippolis 2001, 73; Scheibelreiter-Gail 2011, 88.

⁵⁷ For the role of mosaics as indicator of room hierarchy within private buildings, s. also Scagliarini Corlaita 2003, 165. For mosaic pavements in dining spaces, s. Scheibelreiter-Gail 2011, 99–106. For mosaics as an expression of wealth and prosperity, s. also Dauphin 1980 (esp. 114–116 for Asia Minor).

⁵⁸ Hierapolis: Cottica 2004; Zaccaria Ruggiu 2007, 229–234; Zaccaria Ruggiu – Cottica 2007, 150. 153. Sardis: Hanfmann 1960, 24; Ellis 1997, 41 (›House of Bronzes‹); Greenewalt – Rautman 1998, 484–485 (Sector ›MMS–S‹). Aphrodisias: Campbell 1991, 14 pls. 47–48 fig. 12; Campbell 1996, 190–191; Berenfeld 2009, 214; Scheibelreiter-Gail 2011, 98. 200 (›Triconch House‹); Campbell 1991, 22; Campbell 1996, 192. 193 fig. 10; Scheibelreiter-Gail 2011, 98 (›Atrium House/Priest House‹).

⁵⁹ For this mosaic, s. Vettors 1980.

As far as can be retraced for houses where a larger ensemble of mosaic floors has been preserved, further differences in importance and function of spaces were – as in the Sagalassos residence – reflected by means of a deliberate application of different mosaic types. For instance, in the ›House of Charidemos‹ at Halikarnassos, one of the late antique urban upper class dwellings with the largest number of *in situ* mosaics known thus far for Asia Minor⁶⁰, the hierarchical place of a space was expressed by means of the presence or absence of figurative elements on the pavements. Figurative floors representing personages and scenes from Classical mythology and literary ›Classics‹, hunting themes or personifications, which all reflected the élite education of the house owner (*paideia*) and his high status⁶¹, were laid out in the most representative rooms, whereas geometrical floors without this extra message were used for transition spaces. Polychrome geometrical floors also appeared in regulating areas of houses elsewhere, for instance at Aphrodisias⁶². As was the case in the ›Urban Mansion‹ of Sagalassos also here the motifs had a very repetitive character. In this way they formed a kind of ›optical indicators‹ for outsiders highlighting the track towards the main spaces of the buildings with the richest décor, where the house owner would receive his visitors and display his high status⁶³. All this illustrates that certain strategies of hierarchy expression and luxury display defined the choice for specific floor types in particular spatial contexts. The observation that differences in pavement types offer information on the function and position of a space within a house clearly reveals the need to study mosaics in their architectural context⁶⁴.

VII. Conservation of the ›Urban Mansion‹ Mosaics

Since 2005 a team of archaeological conservators from Ankara University has been working on the terrain at Sagalassos under the supervision of Hande Kökten⁶⁵. Their work involves both preventive and intervening approaches and techniques to conserve immovable archaeological finds that have been preserved *in situ*. The scope of their activities include the consolidation, stabilization and repair of wall plasters and paintings, and the *in situ* conservation and restoration of mosaic floors, as well as the safe lifting of fragile movable archaeological finds. Besides, when necessary⁶⁶, archaeological field conservators lift the mosaics and transfer them to the excavation storage places.

Basics of mosaic conservation at Sagalassos

Conservation of mosaics is one of the major and routine operations undertaken by the field conservation team, since excavations reveal new floor mosaics in various areas of the ancient site every campaign. However, there are many agents that define the team's approach towards a mosaic floor. For instance, the mosaics' physical condition varies in regard to the quality of workmanship and materials used during their production. Besides, the state of preservation of the

⁶⁰ For the mosaics of this house, s. Scheibelreiter-Gail 2011, 270–278 (Cat. 49).

⁶¹ For the role of *paideia* in late antique élite house contexts, s. Uytterhoeven 2009a.

⁶² ›Atrium/Priest's House‹: Campbell 1991, 22–26; Campbell 1996, 192–195; Scheibelreiter-Gail 2011, 97–98, 197–200 (Cat. 7). ›Tetrapylon House‹ s. Campbell 1991, 16–19; Campbell 1996, 195; Scheibelreiter-Gail 2011, 206–208 (Cat. 13).

⁶³ See also Scheibelreiter-Gail 2011 for Roman mosaics with similar characteristics.

⁶⁴ For the importance to place mosaics within their architectural context, s. also Britt 2011, 22.

⁶⁵ Between 2005 and 2008 the Archaeological Field Conservation Team was composed of Dr. Y. Selçuk Şener, Dr. Bekir Eskici and Dr. Cengiz Çetin, under the leadership of Dr. Hande Kökten. Since then the team has been conducted by Hande Kökten and Cengiz Çetin.

⁶⁶ Collapsed fragmentary mosaics that belong to upper floor rooms and mosaics that have been completely detached from the supporting layers of mortar are lifted and removed by the conservators, after detailed documentation. Otherwise, all mosaic floors are preserved *in situ* as a standard principal.

building that embraces the mosaic floor and the burial environment are the other major factors that affect the conservation approach. When accessing the problems, field conservators need to strike a balance between the ›ideal‹ and the ›necessary‹. This is mainly due to the vulnerable nature of the mosaics, which entails a sufficient and durable conservation interference to facilitate the long term preservation. The ideal approach is minimal intervention by stabilizing the floor through reversible techniques and materials, and to re-bury the mosaics until an extensive conservation campaign is planned. However, due to the limitations of time, budget and staff, it becomes almost always a necessity to complete the conservation treatment within the same excavation season during which the mosaic is discovered. This is certainly a constraint resulting from the realities of the field conditions that makes the *in situ* conservation of mosaics – as well as that of wall plasters and paintings – much more judgemental in comparison to the conservation of small objects.

On the other hand, as the archaeological field conservation team observed during the past years of work at Sagalassos, it is vital to achieve an accurate and observant conservation treatment, followed by an adequate back-filling operation to be able to guarantee the future endurance and solidity of a mosaic floor. This is the basic rule of *in situ* conservation, as the treatment achieved in the field at the time of excavation is most probably the ›only treatment‹ the mosaic will receive, at least in the near future. There is only one exception that gives rise to postponing interventive conservation of the mosaic: in case the mosaic floor is discovered near the end of the excavation season and thus accomplishment of the full conservation treatment cannot be achieved due to the lack of time. In this case, the mosaic floor is back-filled after the detailed documentation of its current condition and its conservation is prioritized in the coming season.

Conservation procedure

The procedure for the conservation of mosaics at Sagalassos is well-defined and planned, not only for the members of the conservation team themselves, but also for the archaeologists working in the field. Archaeologists receive the »Conservation Field Guide for Excavators at Sagalassos«, which contains information on ›preventive conservation‹ of archaeological finds in the field. This is considered necessary because of two factors: size and load of interventive conservation work performed by the conservation team, and the direct role of excavators in preservation, as they become constantly and closely involved with archaeological material during the excavations. For instance, in order to protect a newly excavated mosaic from deteriorating environmental factors and to minimize the effects of people's presence in the excavation area, the first preventive measures are taken by the excavators, while the field conservation team executes the preliminary examination of the mosaic floor in preparation of a conservative proposal. Subsequently, the treatment proposal is discussed with the archaeologist in charge of the specific excavation area, or – in case of more complicated treatments that will affect the general time schedule and/or budget of the excavations – with the director. Taking into account the priorities of the excavations and the urgency of other conservation work at the field, the archaeological field conservation team schedules the actual conservation treatment and communicates with the archaeologist, to explain the causes and stages of the chosen treatment method. On the other hand, there are also instances when field conservators are obliged to take over the excavation work of the mosaics, in particular in case of heavily damaged and unstable floors. This is certainly a safer approach for both excavators and the mosaic itself, since the conservation team excavates and stabilizes the floor simultaneously.

If the conditions are convenient, *in situ* preservation takes place immediately after the exposure of the mosaic, or it is scheduled for the season ahead, according to time limitations and work load of the field conservation team. However, whether the newly excavated floor is treated in the season of its discovery or not, conservators immediately complete its photographic and written documentation. Although it is a time-consuming process, documentation becomes an



21 Lifting of a collapsed mosaic fragment of Room L (no. 5) (2006): a. b. surface consolidation; c. d. lifting from the setting bed



22 Mechanical cleaning of the surface of the mosaic of Waiting Room LVI (no. 4) before conservation (2008)

indispensable part of the mosaic's history and continues to be useful also later on, particularly when future conservation work is planned. When the documentation procedure is fulfilled, the mosaic is treated *in situ* in order to stabilize its state, to restrain deterioration and prevent further degradation, and to restore the floor in its original appearance and condition. On the other hand, fragmentary mosaics that have collapsed from the upper stratigraphical layers and thus need to be removed to allow the excavation to be continued are lifted by the field conservation team (fig. 21 a–d).

The actual conservation work consists of several essential phases. These include a.) mechanical (dry) cleaning of the mosaic surface (fig. 22) b.) micro-excavation of the cracks, crevices and lacunae followed by the stabilization of the detached *tesserae*, c.) clearing of the vegetation and plant roots, d.) edging repair with lime mortar, e.) inspection of the mosaic floor for sub-surface loss and detached supporting layers, f.) pre-consolidation, g.) deep consolidation with lime based grouting mortar, h.) treatment of the lacunae and interstices and i.) mechanical (wet) cleaning of the mosaic surface.

When the conservation treatment is concluded, conservators carry out the photographic documentation and back-fill the mosaic floor in respect to the future plans of the excavators and/or excavation director. The type and thickness of the back-filling material as well as the method to be used is determined according to the duration of the reburial.

As a result of this well-established cooperation between the conservation team and excavators, all *in situ* mosaic floors in the ›Urban Mansion‹ – with the exception of the pavements of Vestibule XVII and Room/Corridor XVIII⁶⁷ – have been conserved *in situ* between 2005 and 2009, and the archaeological data have been saved without the risk of post-excavation damage. Therefore, this approach can be considered as an ideal model for archaeological sites with floor mosaics in the long term.

VIII. Conclusion

The ensemble of mosaics excavated at the ›Urban Mansion‹ at Sagalassos, including ten *in situ* floors, as well as fragments of at least three collapsed upper-floor spaces, offer a unique opportunity to study mosaic pavements within the architectural context of a private dwelling with a long building history between – at the latest – the 2nd century B.C. and the mid-7th century A.D.

The late 1st–early 2nd century A.D. geometric mosaics exposed in the two westernmost private bath rooms of the residence (Rooms IX and X) clearly illustrate how floor decoration added to the luxurious character of the bath installation during the Early Roman Imperial phase of the dwelling. When in Late Antiquity an extensive elite residence was built in the area, partly incorporating earlier domestic structures, the private bath with its mosaic floors became part of the large upper class building. Moreover, new mosaics, ranging from tessellate floors to *opus sectile* pavements, were laid out. Floors that, based on stratigraphical pottery dating, can be ascribed to the late 4th–early 5th century A.D. building phase of the ›Urban Mansion‹ have especially been preserved in the northern, representative part of the residence. The *in situ* tessellate floors retrieved in these public spaces entirely followed the contemporaneous vogues of polychrome floors, often in the ›Rainbow Style‹, and were – in line with the taste of the time – conceived as real carpets, decorated with complicated interloped and interlaced geometrical patterns. The polychrome *tesserae* used to achieve these stylistic effects were made out of various stone types as well as ceramics, but the mosaicists had a clear preference for coloured chert types, which were easily accessible in the environment of the city. The *tesserae* were generally placed on substrates consisting of three layers (*nucleus* – *rudus* – *statumen*), whose composition seems to have been chronologically defined.

Besides, the study of the ›Urban Mansion‹ mosaics within their architectural framework and in their interrelationship with each other allows getting an insight in the mechanisms that defined

⁶⁷ Cf. *supra*, notes 19 and 21.

the selection of a particular floor type for a specific space. In particular, differences in the degree of elaborateness and colour variation between the various mosaic floors made these pavements into indicators for the place a space fulfilled in the room hierarchy, as well as for the degree to which the room contributed to impress visitors and to underscore the status of the house owner.

Finally, the way mosaic remains of the ›Urban Mansion‹ at Sagalassos have been excavated in close collaboration between archaeologists and field conservators clearly illustrates that such a cooperation in the field is essential to ensure a long-term preservation of the pavements, which functioned – together with other decorative elements – within the elite house context as major indicators of late antique private luxury.

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Bibliography

- Andaloro – Pogliani 2012 M. Andaloro – P. Pogliani, The 6th century mosaic floor of the church of Küçük Tavşan Adası (Bodrum). A model for an integrated analysis between knowledge, conservation and documentation, in: Şahin 2012, 15–30.
- Angelelli – Salvetti 2010 C. Angelelli – C. Salvetti (eds.), Atti del XV colloquio dell'Associazione Italiana per lo Studio e la Conservazione del Mosaico (AISCOM). Aquileia, 4–7 febbraio 2009 (Rome 2010).
- Baldini Lippolis 2001 I. Baldini Lippolis, La domus tardoantica. Forme e rappresentazioni dello spazio domestico nelle città del Mediterraneo (Bologna 2001).
- Balmelle et al. 1985 C. Balmelle – M. Blanchard-Lemée – J. Christophe, Le décor géométrique de la mosaïque romaine. Répertoire graphique et descriptif des compositions linéaires et isotropes (Paris 1985).
- Baum-vom Felde 2003 P. C. Baum-vom Felde, Die geometrischen Mosaiken der Villa bei Piazza Armerina: Analyse und Werkstattfrage, *Antiquitates, Archäologische Forschungsergebnisse* 26 (Hamburg 2003).
- Berenfeldt 2009 M. Berenfeldt, The Triconch House and the Predecessors of the Bishop's Palace at Aphrodisias, *AJA* 113, 2, 2009, 202–229.
- Blázquez 1992 J. M. Blázquez, El mosaico tardoantico en Hispania, *Corso di Cultura sull'Arte Ravennate e Bizantina* 39, 1992, 99–137.
- Blázquez 2008 J. M. Blázquez, Der Einfluss der Mosaiken des vorderen Orients auf hispanische Mosaiken am Ende der Antike, *Journal of Mosaic Research* 1/2, 2008, 7–31.
- Blázquez – Cabrero 2012 J. M. Blázquez – J. Cabrero, Antioch mosaics and their mythological and artistic relations with Spanish mosaics, *Journal of Mosaic Research* 5, 2012, 43–57.
- Bowersock et al. 1999 G. W. Bowersock – P. Brown – O. Grabar (eds.), *Late Antiquity. A Guide to the Post-classical World* (Cambridge, MA 1999).
- Britt 2011 K. C. Britt, These stones still speak: the progress of research on late Roman and early Byzantine mosaic pavements in the Eastern Mediterranean, *Journal of Art Historiography* 5, 2011, 1–42.
- Campbell 1991 S. Campbell, The Mosaics of Aphrodisias in Caria, *The Corpus of Mosaic Pavements in Turkey. Subsidia Mediaevalia* 18 (Toronto 1991).
- Campbell 1996 S. Campbell, Signs of prosperity in the decoration of some 4th–5th c. buildings at Aphrodisias, in: Roueché – Smith 1996, 187–199.
- Can 2012 B. Can, Technical, stylistic, iconographic evaluation and dating of mosaics of Altintepe Church, in: Şahin 2012, 225–234.
- Chronique des fouilles 1975 *Chronique des fouilles et découvertes archéologiques en Grèce en 1974*, *BCH* 99, 1975, 589–694.
- Cimok 2000 F. Cimok (ed.), *Antioch Mosaics* (Istanbul, 2000).

- Claeys et al. 2005 J. Claeys – M. Corremans – M. Waelkens, Report on the 2003 excavation and restoration campaign at Sagalassos. 3. The Roman Baths, KST 26, 1, 2005, 424–425. 433–434.
- Claeys et al. 2006 J. Claeys – M. Corremans – E. Ünal – M. Arık – M. Naciş – M. Waelkens, Report on the 2004 excavation and restoration campaign at Sagalassos. 3. The Roman Baths, KST 27, 2, 2006, 274–275. 283–284.
- Corremans et al. 2007 M. Corremans – J. Claeys – E. Ergurer – O. Özer – H. Uzunoğlu – M. Kiremitçi, Report on the 2005 excavation and restoration campaign at Sagalassos. 2. Roman Baths, KST 28, 2, 2007, 319–322. 334–335.
- XXXIX Corso di Cultura sull'Arte Ravennate e Bizantina 1992 XXXIX Corso di Cultura sull'Arte Ravennate e Bizantina. Seminario internazionale di studi su »Aspetti e problemi di archeologia e storia dell'arte della Lusitania, Galizia, e Asturie tra Tardoantico e Medioevo« (Ravenna 1992).
- Cottica 2004 D. Cottica, Pavimenti in opus sectile dall'Insula 104 a Hierapolis di Frigia, RdA 28, 2004, 89–106.
- D'Andria – Caggia 2007 F. D'Andria – M. P. Caggia, Hierapolis di Frigia I. Le attività delle campagne di scavo e restauro 2000–2003 (Istanbul 2007).
- Daszewski 1999 W. Daszewski, Mosaics, secular, in: Bowersock et al. 1999, 591–593.
- Dauphin 1980 C. Dauphin, Mosaic pavements as an index of prosperity and fashion, *Levant* 12, 1980, 112–134.
- De Cupere et al. 2009 B. De Cupere – S. Thys – W. Van Neer – A. Ervynck – M. Corremans – M. Waelkens, Eagle Owl *Bubo Bubo* pellets from Roman Sagalassos, *International Journal of Osteoarchaeology* 19, 2009, 1–22.
- Degryse – Waelkens 2008 P. Degryse – M. Waelkens (eds), *Sagalassos 6. Geo- and Bio-Archaeology at Sagalassos and in its Territory* (Leuven 2008).
- Degryse et al. 2008 P. Degryse – P. Muchez – M. Sintubin – A. Clijsters – W. Viane – M. Dederen – P. Schrooten – M. Waelkens, The geology of the area around the ancient city of Sagalassos, in: Degryse – Waelkens 2008, 17–24.
- Donceel-Voute 1999 P. Donceel-Voute, Mosaics, ecclesiastical, in: Bowersock et al. 1999, 590–591.
- Dörtlük – Kaya 2007 K. Dörtlük – T. Kaya (eds.), *The IIIrd International Symposium on Lycia, 7–10 November 2005 Antalya, I–II* (Istanbul 2007).
- Dunbabin 1999 K. M. D. Dunbabin, *Mosaics of the Greek and Roman World* (Cambridge 1999).
- Ebanista – Cuccaro 2010 C. Ebanista – A. Cuccaro, I mosaici pavimentali paleocristiani del ›grande edificio‹ nell'insula episcopalis di Napoli, in: Angelelli – Salvetti 2010, 511–530.
- Ellis 1997 S. P. Ellis, Late-antique dining: architecture, furnishings and behaviour, in: Laurence – Wallace-Hadrill 1997, 41–51.
- Erzen – Yoncaçı 2007 J. N. Erzen – P. Yoncaçı (eds.), *Türkiye'de estetik/Aesthetics in Turkey. Turkish Congress of Aesthetics Proceedings* (Ankara 2007).
- Greenewalt – Rautman 1998 C. H. Greenewalt, Jr. – M. L. Rautman, The Sardis Campaigns of 1994 and 1995, *AJA* 102, 1998, 469–505.
- Hanfmann 1960 G. M. A. Hanfmann, Excavations at Sardis, 1959, *BASO* 157, 1960, 8–43.
- Hoddinot 1975 R. F. Hoddinot, *Bulgaria in Antiquity: An Archaeological Introduction* (London 1975).
- İşıkıkaya-Laubscher 2012 I. R. İşıkıkaya-Laubscher, Mosaics in Perge. Preliminary report on the mosaics of the macellum, in: Şahin 2012, 467–481.
- Jacobs 2014 I. Jacobs (ed.) *Production and Prosperity in the Theodosian Age. Proceedings of ROCT 2010, Interdisciplinary Studies in Ancient Culture and Religion 14* (Leuven 2014).
- Jacobs et al. 2006 I. Jacobs – J. Vermeersch – M. Kiremitçi – M. Waelkens, Report on the 2004 excavation and restoration campaign at Sagalassos. 2. The Domestic Area Excavation, KST 27, 2, 2006, 272–274. 282–283.
- Kolarik 2012 R. Kolarik, Mosaics from Antioch: chronological implications for other regions?, in: Şahin 2012, 519–528.
- Krause – Witschel 2006 J. Krause – C. Witschel (eds.), *Die Stadt in der Spätantike – Niedergang oder Wandel?*, *Historia Einzelschriften* 190 (Stuttgart 2006).
- Ladstätter 2009 S. Ladstätter (ed.), *Neue Forschungen zur Kuretenstraße von Ephesos. Akten des Symposiums für Hilke Thür vom 13. Dezember 2006 an der Österreichischen Akademie der Wissenschaften, Österreichische Akademie der Wissenschaften, DenkschrWien 382 = AForsch 15* (Vienna 2009).
- Ladstätter – Scheibelreiter 2010 S. Ladstätter – V. Scheibelreiter (eds.), *Städtisches Wohnen im östlichen Mittelmeerraum 4. Jh. v. Chr.–1. Jh. n. Chr. Akten des Internationalen Kolloquiums vom 24.–27. Oktober 2007 in der Österreichischen Akademie der Wissenschaften, DenkschrWien 397 = AForsch 18* (Vienna 2010).

- Laurence – Wallace-Hadrill 1997 R. Laurence – A. Wallace-Hadrill, *Domestic Space in the Roman World. Pompeii and Beyond*, JRA Suppl. 22 (Portsmouth, RI 1997).
- Lavan et al. 2007 L. Lavan – L. Özgenel – A. Sarantis (eds.), *Housing in Late Antiquity. From Palaces to Shops*. LAA Suppl. 1 (Leiden 2007).
- Magness 2005 J. Magness, The date of the Sardis Synagogue in light of the numismatic evidence, *AJA* 109, 3, 2005, 443–475.
- Manière-Lévêque 2007a A.-M. Manière-Lévêque, Habitat proto-byzantin à Xanthos: les espaces de réception de la grande résidence nord-est de l'acropole lycienne, in: Dörtlük – Kaya 2007, 425–440.
- Manière-Lévêque 2007b A.-M. Manière-Lévêque, The house of the Lycian Acropolis at Xanthos, in: Lavan et al. 2007, 475–494.
- Manière-Lévêque – Raynaud 2007 A.-M. Manière-Lévêque – M.-P. Raynaud, Corpus of the mosaics of Xanthos, in: Şahin 2007, 33–35. 166–168.
- Martens (accepted) F. Martens, The Urban Development of Sagalassos. Town Planning and Settlement Evolution, *Studies in Eastern Mediterranean Archaeology* 9 (accepted).
- Ohlig 2008 C. Ohlig (ed.), *Cura Aquarum in Jordania. Proceedings of the Thirteenth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Petra/Amman, Jordan, March 31–April 9, 2007* (Siegburg 2008).
- Ortalli – Heinzelmann 2003 J. Ortalli – M. Heinzelmann (eds.), *Abitare in città. La Cisalpina tra impero e medioevo / Leben in der Stadt: Oberitalien zwischen römischer Kaiserzeit und Mittelalter. Kolloquium* (Rom 4–5 November 1999), *Palilia* 12 (Wiesbaden 2003).
- Poblome 2009 J. Poblome, Report on the 2006 and 2007 excavation and restoration activities at Tepe Düzen and at Sagalassos. The Roman Baths, *KST* 30, 3, 2009, 435–438.
- Popova – Lirsch 2012 V. Popova – A. Lirsch, Corpus of Late Antique and Early Christian Mosaics in Bulgaria, in: Şahin 2012, 793–822.
- Poulter 2007 A. Poulter (ed.), *The Transition to Late Antiquity on the Danube and Beyond* (Oxford 2007).
- Putzeys et al. 2004 T. Putzeys – T. Van Thuyne – J. Poblome – I. Uytterhoeven – M. Waelkens – R. Degeest, Analyzing domestic contexts at Sagalassos: developing a methodology using ceramics and macro-botanical remains, *JMedA* 17, 1, 2004, 31–57.
- Quatember et al. 2009 U. Quatember – V. Scheibelreiter – A. Sokolicek, Die sogenannten Alytarchenstoa an der Kuretenstraße von Ephesos, in: *Ladstätt* 2009, 111–154.
- Radt 2006 W. Radt (ed.), *Stadtgrabungen und Stadtforschung im westlichen Kleinasien, Geplantes und Erreichtes. Internationales Symposium 6./7. August 2004 in Bergama (Türkei)*, *Byzas* 3 (Istanbul 2006).
- Raynaud 2009 M.-P. Raynaud, *Lycia. Xanthos, Part 1. The East Basilica. Corpus of the Mosaics of Turkey 1* (Istanbul 2009).
- Rens – Waelkens 2013 R. Rens – M. Waelkens, Sagalassos 2011 kazı ve restorasyon sezonu. 6. İmparatorluk hamamları, *KST* 34, 3, 143–144. 155–156.
- Scagliarini Corlaita 2003 D. Scagliarini Corlaita, *Domus-villae-palatia. Convergenze e divergenze nelle tipologie architettoniche*, in: Ortalli – Heinzelmann 2003, 153–172.
- Scheibelreiter 2007 V. Scheibelreiter, Mosaics in Roman and late antique western Asia Minor, in: Şahin 2007, 63–77; 187–193.
- Scheibelreiter-Gail 2011 V. Scheibelreiter-Gail, Die Mosaiken Westkleinasiens. Tessellate des 2. Jahrhunderts v. Chr. bis Anfang des 7. Jahrhunderts n. Chr., *SoSchrÖAI* 46 (Vienna 2011).
- Schibille et al. 2012 N. Schibille – P. Degryse – M. Corremans – C. G. Specht, Chemical characterisation of glass mosaic tesserae from sixth-century Sagalassos (south-west Turkey): chronology and production techniques, *JASc* 39, 2012, 1480–1492.
- Severson et al. 2000 K. Severson – S. Koob – J. Wolfe – P. Choe – S. Hornbeck – S. McGregor Howarth – A. Sigel, Recovery of unbacked mosaics from a storage depot fire at the Sardis excavations, *Journal of the American Institute for Conservation* 39.1, 2000, 3–13.
- Şahin 2007 M. Şahin (ed.), III. Uluslararası Türkiye mozaik korpusu sempozyumu bildirileri. 8–10 Haziran 2006, Bursa/The Proceedings of III. International Symposium of the Mosaic of Turkey. 8–10 June 2006, Bursa (Bursa 2007).
- Şahin 2012 M. Şahin (ed.) XI. Uluslararası antik mozaik sempozyumu. 16–20 ekim 2009 Bursa, Türkiye. Türkiye mozaikleri ve antik dönemden ortaçağ dünyasına diğer mozaiklerle paralel gelişimi: mozaiklerin başlangıcından Geç Bizans çağına kadar ikonografi, stil ve teknik üzerine sorular/11th International Colloquium on Ancient Mosaics. October 16th–20th, 2009, Bursa Turkey. Mosaics of Turkey and Parallel Developments in the Rest of the Ancient and Medieval World: Questions of Iconography, Style and Technique from the Beginnings of Mosaic until the Late Byzantine Era (Bursa 2012).

- Uytterhoeven 2002 I. Uytterhoeven, The 2000 excavation and restoration season at Sagalassos. 3. The Domestic Area DA1, KST 23, 1, 2002, 15–16.
- Uytterhoeven 2007 I. Uytterhoeven, Urban aesthetics in late antique Sagalassos. II. The private urban mansion, in: Erzen – Yoncacı 2007, 473–488.
- Uytterhoeven 2009a I. Uytterhoeven, Know your Classics! Manifestations of ›classical culture‹ in late antique domestic contexts, in: Van Nuffelen 2009, 321–342.
- Uytterhoeven 2009b I. Uytterhoeven, Report on the 2006 and 2007 excavation and restoration activities at Tepe Düzen and at Sagalassos. The Palatial Mansion, KST 30, 3, 2009, 440–442. 454.
- Uytterhoeven 2011 I. Uytterhoeven, Bathing in a ›western style‹. Private bath complexes in Roman and Late Antique Asia Minor, IstMitt 61, 2011, 287–346.
- Uytterhoeven 2013 I. Uytterhoeven, Running water. Aqueducts as suppliers of private water facilities in (late) Roman Asia Minor, in: Wiplinger 2013, 137–160.
- Uytterhoeven (2014a) I. Uytterhoeven, *Hypsorophos domos*: residential architecture in the Theodosian city, in: Jacobs (2014).
- Uytterhoeven (2014b) I. Uytterhoeven, Passages full of surprises. Circulation patterns within the Late Antique urban elite houses of Asia Minor, in: D. Kurapkat – P. I. Schneider – U. Wulf-Rheidt (eds.), *Die Architektur des Weges. Gestaltete Bewegung im gebauten Raum. Internationales Kolloquium in Berlin vom 08.–11. Februar 2012, veranstaltet vom Architekturreferat des DAI, DiskAB 11* (Regensburg 2014) 425–435.
- Uytterhoeven – Martens 2008 I. Uytterhoeven – F. Martens, Private bathing and water consumption at Sagalassos (SW-Turkey) and Asia Minor, in: Ohlig 2008, 285–300.
- Uytterhoeven – Van Beeumen 2013 I. Uytterhoeven – R. Van Beeumen, Sagalassos 2011 kazı ve restorasyon sezonu. 9. Kent Konağı, KST 34, 3, 2013, 146–147. 153. 157.
- Uytterhoeven – Van Beeumen 2014 I. Uytterhoeven – R. van Beeumen, Sagalassos'ta 2012 yılı kazı ve restorasyon çalışmaları. 2.A.3: Kent Konağı kazıları, KST 35, 2, 2014, 245. 255 Fig. 3.
- Uytterhoeven – Waelkens 2005 I. Uytterhoeven – M. Waelkens, Report on the 2003 excavation and restoration campaign at Sagalassos. II. The Domestic Area excavation, KST 26, 1, 2005, 422–424. 432–433.
- Uytterhoeven – Waelkens 2012 I. Uytterhoeven – M. Waelkens, Sagalassos 2010 yılı kazı ve restorasyon çalışmaları. 7. Kent konağı'ndaki deneme sondajları, KST 33, 3, 2012, 247–248. 261. 264.
- Uytterhoeven – Waelkens (2014) I. Uytterhoeven – M. Waelkens The Bouleuterium-Church Complex on the Upper Agora. Architecture, Stratigraphy, Chronology, in: Waelkens et al. (2014).
- Uytterhoeven et al. 2001 I. Uytterhoeven – T. Helsen – T. Vereenooghe – M. Waelkens – J. Poblome – R. Degeest, The 1998–99 excavation campaign at Sagalassos. 3. The Domestic Area I excavation, KST 22, 2, 2001, 167–169.
- Uytterhoeven et al. 2004 I. Uytterhoeven – T. Putzeys – M. Waelkens, Report on the 2002 excavation and restoration campaign at Sagalassos. 3. The Domestic Area, KST 25, 1, 2004, 217–218. 224–226.
- Uytterhoeven et al. 2007 I. Uytterhoeven – I. Jacobs – M. Kiremitçi, Report on the 2005 excavation and restoration campaign at Sagalassos. 1. The Domestic Area excavation, KST 28, 2, 2007, 317–319.
- Uytterhoeven et al. 2010 I. Uytterhoeven – F. Martens – B. Mušič – M. Waelkens, Urban housing in the Pisidian town of Sagalassos (Burdur, Turkey), in: Ladstätter – Scheibelreiter 2010, 291–310.
- Uytterhoeven et al. 2011 I. Uytterhoeven – J. Poblome – M. Waelkens, Sagalassos 2008 ve 2009 Kazı ve Restorasyon Sezonları. 5. Kent Konağı, KST 32, 3, 2011, 272–273. 280.
- Valeva 2012 J. Valeva, Une riche domus de Stara Zagora (Augusta Trajana-Beroe): publication préliminaire, in: Şahin 2012, 927–940.
- Vandenbergh et al. 2001 J. Vandenbergh – M. Waelkens – I. Vandamme, The excavation of the church in the courtyard of the Bouleuterium, in: Waelkens 2001, 163–166.
- Vanhaverbeke et al. 2007 H. Vanhaverbeke – F. Martens – M. Waelkens, Another view on Late Antiquity: Sagalassos (SW Anatolia), its suburbium and its countryside in Late Antiquity, in: Poulter 2007, 611–648.
- Van Nuffelen 2009 P. Van Nuffelen, Faces of Hellenism. Studies in the History of the Eastern Mediterranean (4th century B.C.–5th century A.D.), *Studia Hellenistica* 48 (Leuven 2009).
- Vetters 1980 H. Vetters, Ephesos: vorläufiger Grabungsbericht 1979, *AnzWien* 117, 1980, 249–266.
- Waelkens 2002 M. Waelkens, Romanization in the East. A case study: Sagalassos and Pisidia (SW Turkey), *IstMitt* 52, 2002, 311–368.
- Waelkens 2004 M. Waelkens, Ein Blick von der Ferne. Seleukiden und Attaliden in Pisidien, *IstMitt* 54, 2004, 435–471.
- Waelkens 2006 M. Waelkens, Sagalassos 1990–2004. A balance of fifteen years of urban excavations and research, in: Radt 2006, 325–358.

- Waelkens – Loots 2000 M. Waelkens – L. Loots (eds.) *Sagalassos 5. Report on the Survey and Excavation Campaigns of 1996 and 1997, I* (Leuven 2000).
- Waelkens et al. 2000 M. Waelkens – H. Kökten Ersoy – K. Severson – F. Martens – S. Sener, The Sagalassos Neon Library mosaic and its conservation, in: Waelkens – Loots 2000, 419–447.
- Waelkens et al. 2007 M. Waelkens – T. Putzeys – I. Uytterhoeven – T. Van Thuyne – W. Van Neer – J. Poblome – N. Kellens, Two late antique housing units at Sagalassos, in: Lavan et al. 2007, 495–514.
- Waelkens et al. (in press) M. Waelkens – P. Bes – I. Jacobs – J. Poblome (eds.), *Sagalassos 7. The Upper and Lower Agora. The Porticoes, the Bouleuterion, the Basilica of St. Michael and the ›Northeast Building‹* (Leuven in press).
- Wiplinger 2013 G. Wiplinger (ed.) *Historische Wasserleitungen. Gestern – Heute – Morgen. Tagungsband des Internationalen Frontinus-Symposiums. Wien, 19.–23. Oktober 2011, BABesch Suppl. 24 = SoSchrÖAI 49* (Leuven 2013).
- Zaccaria Ruggiu 2007 A. Zaccaria Ruggiu, Regio VIII, Insula 104. Le strutture abitative: fasi e trasformazioni, in: D’Andria – Caggia 2007, 211–256.
- Zaccaria Ruggiu – Cottica 2007 A. Zaccaria Ruggiu – D. Cottica, Hierapolis di Frigia fra tarda antichità ed 21 secolo: l’apporto dello studio degli spazi domestici nell’insula 104, *RdA* 31, 2007, 139–189.

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References of figures: Figs. 1–8. 10–18: Sagalassos Archaeological Research Project; figs. 9. 21–23: reconstruction by the conservation team of H. Kökten); figs. 19. 20: M. Corremans.

Abstract

Inge Uytterhoeven – Hande Kökten – Markku Corremans – Jeroen Poblome – Marc Waelkens, Late Antique Private Luxury. The Mosaic Floors of the ›Urban Mansion‹ of Sagalassos (Ağlasun, Burdur – Turkey)

Excavations in the ›Urban Mansion‹ at Sagalassos (SW-Turkey) have revealed 13 geometrical mosaic floors in *opus tessellatum* thus far. These include the *in situ* mosaics belonging to two Early Imperial phases of the private bath complex of the mansion, as well as – *in situ* and collapsed – pavements laid out during the late 4th–early 5th century A.D. phase of the residence. The stratigraphical dating of the mosaics of the late antique representative wing is supported by their stylistic characteristics. The polychrome interlaced and interloped motifs, executed by multi-coloured *tesserae* made of local chert, are entirely in line with the mosaic floors of contemporary buildings. Within the architectural context of the late antique

élite mansion these fashionable floors functioned as indicators of room hierarchy and they contributed to the self-display of the house owner. The article ends with underscoring the importance of collaboration between archaeologists and conservators when mosaics are encountered in the field.

Keywords

Sagalassos (Turkey) – Housing – Mosaics – Archaeometry – Conservation